

MASTER

ALPHA ACADEMY
MASTER VOLUME

The complete school in one book — 101 documents, every level, every exam.

Alpha Academy · Team Alpha Trading

About This Book

This is **Alpha Academy, complete**: every level, the Practice Pack, the Worked Examples, and the Curriculum & Assessment layer — 101 documents in one searchable book. Use the PDF outline (bookmarks) to jump anywhere, or find any term with Ctrl/Cmd+F — the Alpha Trading Glossary and the Expanded Glossary are inside. The book is bound as a journey, not a filing cabinet: every level ends with practice and an exam that gates the next, worked examples show the ideas as finished trades before you specialize, and the glossaries, cheat sheets, almanac, and posters live on the Reference Shelf at the back. The Academy stays strategy-neutral throughout — arenas, structures, timing, risk, and process.

Contents

Start Here

Document	Page
Academy Index	9
Welcome to Alpha Academy	14
Curriculum & Assessment Index	20
Student Handbook	23
The 52-Week Alpha Curriculum	31

Level 1 — Foundations

Document	Page
What Is the Stock Market?	45
Stocks A–Z	52
How Trading Actually Works	60
Reading Charts & Candlesticks	67
The Language of the Market	74
Technical Analysis A–Z	79
Chart Patterns & Price Action	87
Fundamental Analysis A–Z	94
What Moves Markets	102
Options Part 1: The Basics	109
Options Part 2: Pricing & the Greeks	117
Options Part 3: Strategies	124
Options Part 4: Risk & 0DTE	135
Futures A–Z	143
ETFs, Index Funds & Mutual Funds	151
Forex & Crypto Basics	158
Bonds, Rates & Commodities	165
Risk Management A–Z	172
Trading Psychology & Discipline	180
Trading Plan & Journal	188
Accounts, Margin, Rules & Taxes	195
Safety: Scams & Protecting Your Money	202

Practice — Put It to Work

Document	Page
Workbook 1: Foundations	209
Workbook 2: Analysis	217
Workbook 3: Options	225
Workbook 4: Futures & Markets	233
Workbook 5: Risk, Psychology & Rules	240
Trading Plan Template	255
Trading Journal Pages	261
Weekly Review & Checklists	268
The 30-Trade Paper Challenge	273
Glossary Flashcards & Study Sheets	282

Level 1 Final Exam

Document	Page
Alpha Academy Final Exam	373
Final Exam — Answer Key	380

Level 2 — The Advanced Course

Document	Page
Level 2 Index	385
Welcome to Level 2	389
Level 2 Quotes & the Tape	394
Order Flow Basics	401
Market Internals	408
Volatility & the VIX A–Z	414
Trading Earnings & IV Crush	422
Calendar & Diagonal Spreads	430
Butterflies & Advanced Structures	436
Portfolio Greeks & Hedging	443
The DOM & Footprint Charts	451
Trading the Open	459
Swing Trading A–Z	465
Building & Backtesting a System	473
Gamma & Dealer Positioning	480
Trading With GEX Levels	488
Long-Term Investing & Portfolio Building	495
Retirement Accounts Deep Dive	503
Trader Taxes Advanced	510
Case Studies: Crashes & Manias	517

Level 2 Final Exam

Document	Page
Level 2 Final Exam	526
Level 2 Final Exam — Answer Key	537

Worked Examples — Watch It Done

Document	Page
Examples: Reading Charts	542
Examples: Options Trades	548
Examples: Three 0DTE Days	555
Examples: Futures Trades	564
Examples: Swing Trades	570
Examples: Risk Disasters & Saves	577

Level 3 — Choose Your Track

Document	Page
Level 3 Index	584

Track A — 0DTE Mastery

Document	Page
Track A · The 0DTE Arena	588
Track A · 0DTE Structures	596
Track A · 0DTE Timing	604
Track A · 0DTE Risk Commandments	612
Track A · The 0DTE Playbook	620
Track A Exam — 0DTE Mastery	628
Track A Exam — Answer Key	636

Track B — Futures Day Trading

Document	Page
Track B · The Futures Setup	639
Track B · Trading the Open	647
Track B · Trend vs Range	655
Track B · Futures Risk & the Daily Stop	662
Track B · The Futures Routine	670
Track B Exam — Futures Day Trading	679
Track B Exam — Answer Key	684

Track C — Swing & Position Trading

Document	Page
Track C · The Swing Framework	688
Track C · Position & Trend Following	695
Track C · Swinging With Options	703
Track C · Managing a Book of Swings	710
Track C · The Weekly Swing Routine	719
Track C Exam — Swing & Position	727
Track C Exam — Answer Key	734

The Capstone

Document	Page
The Capstone — One Simulated Week	738
The Capstone — Grading Key	746

Stay Sharp — Drill Decks

Document	Page
Drill Deck 1 — Charts & Candles	755
Drill Deck 2 — Risk & Options Math	767

Reference Shelf

Document	Page
Alpha Trading Glossary	778
Glossary — Expanded Edition	811
Quick Reference Cheat Sheets	868
The Market Almanac	875
Poster: Candlestick Patterns	885
Poster: Chart Patterns	888
Poster: The Greeks	891
Poster: The Risk Rules	893

> **RULE**
> One book, one standard — foundations first, risk always, and no document skipped because it looked easy. The easy-looking ones are where the money leaks.



AA-00

ACADEMY INDEX

The map of Alpha Academy — every module and every learning path, in order.

Alpha Academy · Team Alpha Trading

Alpha Academy — Index & Curriculum Map

Welcome to **Alpha Academy**, Team Alpha Trading's school for complete beginners. This library teaches the entire market from zero — what stocks are, how options and futures work, how to read charts, how to manage risk, and how to stay safe — in plain English, with real dollar examples, assuming you have never heard any of it before.

The Academy pairs with the **Team Alpha Strat Library**: this school teaches the whole market; the Strat Library teaches Team Alpha's specific trading method. Learn the market here first, then learn the method there.

> **NOTE**
> Everything in Alpha Academy is education, not financial advice. Trading involves real risk of loss. Read in order, do the Check Yourself questions at the end of each module, and practice in a paper (practice-money) account long before real money is involved.

The Curriculum

Code	Document	What You Will Learn
AA-00	Academy Index & Curriculum Map	This map — the whole school on one page
AA-01	Welcome: Your First Steps Into the Market	What trading is and is not, honest expectations, your 4-week starter plan
AA-02	What Is the Stock Market?	Markets, exchanges, indexes, and why prices move
AA-03	Stocks A–Z	Shares, tickers, market cap, dividends, splits, IPOs
AA-04	How Trading Actually Works	Brokers, accounts, and every order type, explained
AA-05	Reading Charts & Candlesticks	What charts show and how to read any candle
AA-06	The Language of the Market	The core vocabulary every trader uses daily
AA-07	Technical Analysis A–Z	Moving averages, VWAP, RSI, MACD and the rest of the toolkit
AA-08	Chart Patterns & Price Action	Trends, breakouts, support & resistance, classic patterns
AA-09	Fundamental Analysis A–Z	Financial statements, earnings, value — in plain words
AA-10	What Moves Markets	The Fed, inflation, jobs reports, earnings season, the VIX
AA-11	Options Part 1: The Basics	Calls, puts, strikes, premiums — with full worked examples
AA-12	Options Part 2: Pricing & the Greeks	Implied volatility, delta, theta, gamma, vega
AA-13	Options Part 3: Strategies	Covered calls to spreads and iron condors, with numbers
AA-14	Options Part 4: Risk & 0DTE	Hedging, position sizing, and the truth about same-day options
AA-15	Futures A–Z	Contracts, ticks, point values, margin, rolling — full specs
AA-16	ETFs, Index Funds & Mutual Funds	Owning the whole market in one ticker

Code	Document	What You Will Learn
AA-17	Forex & Crypto Basics	Currency pairs, pips, wallets — and their real dangers
AA-18	Bonds, Rates & Commodities	IOUs, yields, gold and oil — the market's foundation
AA-19	Risk Management A–Z	Position sizing, stops, R-multiples — staying in the game
AA-20	Trading Psychology & Discipline	Fear, greed, FOMO, revenge trading — and the cures
AA-21	Building Your Trading Plan & Journal	Your business plan and your report card
AA-22	Accounts, Margin, Rules & Taxes	The boring stuff that protects you
AA-23	Safety: Scams & Protecting Your Money	Pump-and-dumps, fake gurus, phishing — red flags
AA-24	Alpha Trading Glossary A–Z	500+ market words defined in plain English, fully searchable
AA-25	Quick Reference Cheat Sheets	Order types, Greeks, futures specs, market hours — one-glance tables

Learning Paths

The Total Beginner Path (start here)

Read in this exact order: **AA-01 → AA-02 → AA-03 → AA-06 → AA-04 → AA-05 → AA-19 → AA-23**. That path takes you from "what is a stock" to placing a paper trade safely. Then continue through the rest of the library in number order.

The Options Path

After the Beginner Path: **AA-11 → AA-12 → AA-13 → AA-14**, with AA-07 and AA-08 for chart skills. Paper trade options for at least a month before considering real money — options can expire worthless, and most beginners underestimate how fast.

The Futures Path

After the Beginner Path: **AA-15 → AA-19 → AA-21**, with AA-07 for charts. Start on the micro contracts (MES, MNQ) if you ever trade futures live — they exist so beginners can learn with small dollar risk.

How Team Alpha Trades It

- Every module ends with a **Chapter Summary** and **Check Yourself** questions — do them. Reading without testing yourself is entertainment, not study.

- Keep the **Glossary (AA-24)** open beside every module. Look up every word you cannot define out loud.
- Keep the **Cheat Sheets (AA-25)** beside your charts when you practice.
- When you finish this library, move to the **Team Alpha Strat Library** to learn the exact method Team Alpha trades, then paper trade it until your journal proves you can follow your own rules.

> **RULE**
> Nobody at Alpha Academy will ever tell you a trade cannot lose. If anyone — anywhere — promises you profits, they are selling you something. Your edge is education, risk control, and discipline, in that order.



AA-01

WELCOME TO ALPHA ACADEMY

What trading is, what it is not, and your first four weeks — for the complete beginner.

Alpha Academy · Team Alpha Trading

Welcome to Alpha Academy: Your First Steps Into the Market

Welcome. If you have never bought a stock, never seen a trading chart, and could not explain what an option is to save your life — you are in exactly the right place. Alpha Academy was built for you. We assume you know nothing about the market, and we mean that as a compliment: everybody who trades today started right where you are.

By the end of this chapter, you will know what trading really is (and what it is not), what results are realistic for a beginner, the three skills every trader builds, and how to move through this school — plus a simple four-week plan to get started. No experience needed. No money needed. Just honesty and a little patience.

> **NOTE**
> Everything in Alpha Academy is education, not financial advice. We will never tell you what to buy, and nobody can promise you profits. Anyone who does promise you profits is selling you something.

What Is Alpha Academy?

Alpha Academy is Team Alpha Trading's school. **Team Alpha Trading** is our community of traders — people who study the market together and hold each other to real standards. The Academy organizes that learning into one path of short chapters that build on each other, from "what is a stock?" to complete trading strategies.

Think of it like learning to drive: nobody hands you car keys on a highway on day one. You learn the pedals, practice in an empty lot, and only then merge into traffic. This school works the same way: understand first, practice second, real money last.

What Trading Actually Is

Trading means buying something at one price and selling it later at a different price, hoping to keep the difference. The "something" might be a **stock** — a small piece of ownership in a company, like one slice of a very large pizza. Buy 10 shares of a company at $50 each and you spend $500. If the price rises to $60 and you sell, you get $600 back: you made $100. If it falls to $40 and you sell, you get $400 back: you lost $100. That is the whole engine. Everything else in this school — charts, options, futures, strategies — is better ways of deciding **what** to buy, **when**, and **how much** to risk when you are wrong.

A few words you will see constantly, defined right now:

- A **share** is one unit of a stock — own 100 shares and you own 100 little pieces of that company.
- A **broker** is the company whose app or website lets you buy and sell — the doorway to the market, the same way a bank app is the doorway to your bank account.
- A **trade** is one complete trip: buying something and later selling it. Buying alone is only half a trade.

What Trading Is Not

Just as important is what trading is **not**.

Trading is not a job with a paycheck. A job pays you the same amount every week whether the day went well or badly. Trading pays nothing on a schedule. Some weeks a good trader makes money; some weeks they lose money while doing everything right, because nobody controls prices. If you need this month's

rent to come from trading, you are not ready — that pressure will break every rule you make.

Trading is not gambling — if you do it with rules. The honest answer is "it depends on you." A gambler at a slot machine has no edge, no plan, and no way to control a loss. A trader with a tested plan knows in advance what they will buy, why, how much they will risk, and when they will get out. That is a business process, not a coin flip. But the moment you trade on a hunch, chase an internet tip, or refuse to sell a loser because you "feel" it will come back, the rules are gone — and now it **is** gambling, in a building where the other side plays by rules. Your rules decide which version of you shows up.

Trading is not a shortcut to getting rich. Social media shows the one winning trade and hides the forty losing ones. Real skill is built the slow way, like a trade craft — electricians and surgeons took years too.

Realistic Expectations: Read This Twice

Most beginners lose money in their first year of trading. That is not a warning we add for legal reasons; it is simply true. Beginners lose because they are learning a hard skill in a place that charges tuition in the form of losing trades.

So set the right goal. **The real goal of your first year is not profit. It is learning and survival.** Survival means your account is still alive — you never lost so much on one idea that you could not continue. Ending year one near break-even, with real skills and good habits, means you have beaten most beginners.

Progress comes in stages: first fewer dumb mistakes, then smaller losses, then break-even, then — if you keep working — wins that outnumber the losses. Nobody skips steps — the students who try are the ones who fund the market for everyone else.

The Three Skills Every Trader Builds

Every good trader is really three people in one. The Academy trains all three, in this order.

Skill 1: Understanding

This is knowledge: what a stock, an option, and a futures contract are; how prices move; how to read a chart; what makes a trade a good idea or a bad one. Understanding is what most of this school's chapters build. It is necessary — but not enough on its own. Plenty of people can explain trading perfectly and still lose money, because of skills two and three.

Skill 2: Execution

Execution means doing the trade correctly: placing the right kind of order, at the right price, for the right amount, and getting out when your plan says to get out. It sounds simple. In a live market, prices jump every second — and beginners click the wrong button, buy the wrong thing, or freeze. Execution is hands-on, which is why this school makes you practice with fake money first (more on that in a moment).

Skill 3: Self-Control

This is the hardest one, and the one that decides who lasts. Self-control means following your plan when you are scared, staying calm when you are winning, and stopping for the day when you are emotional. Fear and greed are not character flaws; they are human defaults. Every trader feels them. The ones who survive built rules for their feelings before the feelings arrived.

How Alpha Academy Is Organized

The Academy is one path, in this order:

- **Market Foundations** — what the market is, who is in it, and how prices move.
- **Stocks and Funds** — owning pieces of companies, dividends, and funds holding many stocks at once.
- **Getting Set Up** — brokers, accounts, and the order types for buying and selling safely.
- **Options** — contracts that let you trade on a stock's movement without owning the stock, explained slowly.
- **Futures and Other Markets** — contracts on indexes, gold, oil, and currencies, and how they differ from stocks.
- **Charts and Technical Analysis** — reading price charts, trends, and candlestick patterns.
- **Risk Management** — how much to risk per trade, how to size positions, and how professionals stay alive.
- **Trading Psychology** — your brain on money: fear, greed, revenge trading, and the routines that beat them.
- **Strategies and Your Trading Plan** — pulling it all together into a written plan you can follow.

Two companions travel with you: the **Alpha Trading Glossary**, a searchable dictionary of every term we use, and the **Quick Reference Cheat Sheets**, one-page tables of the facts you will look up again and again. Unknown word? The Glossary is your first stop.

Here is the golden path through every chapter:

- Read the chapter in order. Do not skip ahead — later chapters assume earlier words.
- Answer the **Check Yourself** questions at the end before reading the answers.
- Write down any term you cannot explain in your own words, and look it up in the Glossary.
- Practice every new skill in a paper account (next section) before it touches real money.

> **RULE**
> Paper trade before real money. Always. No exceptions, no matter how sure you feel.

You Need $0 to Start Learning

Here is the best news in this chapter: learning to trade costs nothing. **Paper trading** means practicing in a simulator — your broker gives you a practice account with pretend money, and everything works exactly like the real market: real prices, real charts, real order buttons. The only fake part is the money — and most brokers offer it free.

Paper trading is not a kids' version of trading — professionals test new strategies on paper first. It is where you will make your beginner mistakes (clicking buy instead of sell, ordering 100 shares when you meant 10) at a cost of exactly $0 each. Make them there, on purpose, while they are free.

And when real-money day finally comes, the rule is absolute: **only money you can afford to lose completely.** Not rent money. Not borrowed money. Not the emergency fund. Start absurdly small — an amount whose total loss would annoy you, not harm you. Experience is cheapest when the stakes are tiny.

> **TIP**
> Treat your paper account like it is real: same sizes you could afford, same rules, a journal of every trade. Take fake money seriously and real money feels familiar; gamble with it and you are rehearsing gambling.

Your Time: An Hour a Day Beats a Weekend Binge

You do not need eight free hours a day for this. You need consistency. **An hour a day, five days a week, will teach you more than a ten-hour Sunday binge** — your brain keeps what it revisits often and forgets what it crams. Read one section, answer its questions, make a few paper trades, write two lines in your journal. That is a perfect study day.

Be honest about the long game: becoming competent takes months; becoming good takes longer. There will be a week where everything clicks and a week after where nothing works. That is not failure — it is what learning a real skill feels like from the inside.

Your First Four Weeks

A starter plan: adjust the pace to your life, but keep the order.

Week	What to Read	What to Do
---	---	---
Week 1	Market Foundations and Stocks and Funds	Open a free paper trading account. Watch prices move for a few days without trading anything.
Week 2	Getting Set Up: brokers, accounts, and order types	Place your first paper trades — one market order, one limit order — and note what happened.
Week 3	Charts and Technical Analysis basics	Paper trade stocks only. Start your journal: a reason before every trade, a review after.
Week 4	Risk Management	Write your personal risk rules (risk per trade, per day). Review your journal; find your most common mistake.

Options and futures come after these four weeks, once the foundations feel easy. No prize for getting there early — the prize for getting there ready is keeping your money.

Mindset Mistakes New Students Make

- **Treating this like a lottery ticket.** Buying something because it "might explode" is a wish, not a plan. Every trade here starts with a reason and an exit.
- **Believing confidence equals competence.** Feeling sure is not the same as being right. The market has humbled people far smarter than either of us. Let your results grade you, not your feelings.
- **Quitting after the first losing streak.** Losing streaks happen to every trader alive. They are weather, not a verdict — survive them and learn from them.
- **Refusing to write things down.** Memory lies, especially about losses — the journal is where honest traders are made.

- **Thinking the goal is to never lose.** Losses are a cost of doing business, like a restaurant buying ingredients. Lose small, on purpose, according to plan.

Chapter Summary

- Alpha Academy is Team Alpha Trading's school: a step-by-step path that assumes zero knowledge and builds real skill in order.
- Trading means buying something and selling it later, keeping the difference — everything else is deciding what, when, and how much to risk.
- Trading is not a paycheck and not a get-rich shortcut. With rules, it is a business process; without rules, it becomes gambling.
- Most beginners lose money early. Your first year's real goal is learning and survival, not profit.
- Every trader builds three skills: understanding, execution, and self-control — in that order, and the third matters most.
- You need $0 to start: paper trading gives you the real market with pretend money, and mistakes there are free. When real money comes in later, it must be money you can afford to lose, in amounts small enough to be boring.
- An hour a day of steady study beats weekend binges, and the first four weeks cover foundations, setup, charts, and risk — in that order.

Check Yourself

1. In one sentence, what is trading?
2. Trading without rules turns into what — and why?
3. What is the realistic main goal of your first year of trading?
4. What are the three skills every trader builds?
5. How much money do you need to start learning, and what lets you practice safely?

Answers: 1) Buying something at one price and selling it later at a different price, hoping to keep the difference. 2) Gambling — without a plan for what to buy, how much to risk, and when to exit, you are just betting on hunches. 3) Learning and survival — building skill while keeping your account alive, not profit. 4) Understanding (knowledge), execution (doing trades correctly), and self-control (following your plan under pressure). 5) Zero dollars — a free paper trading account lets you practice with real prices and pretend money.

> **RULE**
> Learn in order, practice on paper, risk only what you can afford to lose. That sentence will protect you more than any strategy in this school.



CU-00

CURRICULUM & ASSESSMENT

The layer that runs the school — the year, the rules, the exams.

Curriculum & Assessment · Team Alpha Trading

Curriculum & Assessment — Index

The Academy's books teach. This library **runs the school**: it sequences every book into a year, states the rules students are graded by, and holds the exams that decide who actually learned.

> **NOTE**
> Nothing here teaches new material — and that is the point. A library on a shelf is potential. A curriculum with gates and exams is a school.

The Documents

Code	Document	What It Does
CU-00	Curriculum & Assessment Index	This map
CU-01	The 52-Week Alpha Curriculum	The full school year — 4 terms, every week assigned
CU-02	Student Handbook	The rhythm, the grading, the promotion gates, the house rules
CU-03	Level 2 Final Exam	50 questions over all of Level 2 — pass mark 80%
CU-04	Level 2 Final Exam — Answer Key	Every answer explained, with the module to re-study
CU-05	Track A Exam — 0DTE Mastery	30 questions — pass mark 80%
CU-06	Track A Exam — Answer Key	Answers + re-study map
CU-07	Track B Exam — Futures Day Trading	30 questions — pass mark 80%
CU-08	Track B Exam — Answer Key	Answers + re-study map
CU-09	Track C Exam — Swing & Position	30 questions — pass mark 80%
CU-10	Track C Exam — Answer Key	Answers + re-study map
CU-11	The Capstone — One Simulated Week	Five sessions, one paper account, real decisions
CU-12	The Capstone — Grading Key	Model answers, 100 points, 80 to pass
CU-13	The Market Almanac	Every recurring event + the Numbers That Matter
CU-14	Drill Deck 1 — Charts & Candles	60 rapid-fire chart reps
CU-15	Drill Deck 2 — Risk & Options Math	60 rapid-fire math reps, work shown

How the Layer Fits the School

- **The Curriculum (CU-01)** sequences Level 1, the Practice Pack, Level 2, a Level 3 track, and the Worked Examples into 52 weeks — nothing in the school is unassigned, and nothing is assigned before its foundations.
- **The Handbook (CU-02)** is the constitution: weekly rhythm, grading standards, and the honest gates between paper and real money.
- **The Exams (CU-03..10)** gate the levels. The Level 1 exam (Practice Pack) guards Level 2; these guard the tracks and the Capstone. Answer keys are teacher documents — they live apart from the exams on purpose.
- **The Capstone (CU-11/12)** is the final board: a full simulated week where knowledge, sizing, and discipline are graded together.
- **The Almanac (CU-13)** is the desk reference for event days and every formula in the school.
- **The Drill Decks (CU-14/15)** are the daily reps — the Curriculum assigns them by week.

> **RULE**
> Books are read once; a curriculum is lived for a year. Start at Week 1, respect the gates, and let the exams tell the truth.



CU-02

STUDENT HANDBOOK

The weekly rhythm, the grading, the gates, and the house rules.

Curriculum & Assessment · Team Alpha Trading

Alpha Academy Student Handbook

Welcome to Alpha Academy. This handbook is not a lesson — it is the rulebook for how the school itself runs. The modules teach you the market. This document teaches you how to be a student here: how your week is supposed to look, how you are graded, what has to be true before you move up a level, what the house rules are, and exactly what to do when something goes wrong — because at some point, something will.

Read it once before you start, and again at every promotion gate. Most students who fail here do not fail on knowledge — they fail on process: skipped practice, skipped journals, skipped gates. This handbook exists so that never has to be you.

> **NOTE**
> Alpha Academy is education only. Nothing in this school is financial advice, and passing every gate here does not guarantee you will make money — most beginners lose money when they start trading real money. The gates exist to make sure you learn the lessons in the cheapest order possible: on paper first, where mistakes are free.

How This School Works

Alpha Academy is built in layers, and the layers are taken in order:

- **Level 1 (AA-00 → AA-25)** — the whole market from zero: stocks, charts, options, futures, risk, psychology, accounts, and staying safe.
- **The Practice Pack (PP-01 → PP-16)** — workbooks, templates, flashcards, posters, the 30-Trade Paper Challenge, and the Level 1 Final Exam. This is where knowledge turns into reps.
- **Level 2 (AA2-00 → AA2-20)** — how the market works underneath: order flow, volatility, advanced options structures, gamma, systems, taxes, and the case studies of real crashes and manias.
- **Level 3 (AA3-00 → AA3-15)** — three specialist tracks: 0DTE Mastery, Futures Day Trading, and Swing & Position Trading. You choose one arena and go deep.
- **The Worked Examples (EX-01 → EX-06)** — complete trades with every number worked, including the disasters.
- **Round 3** — the layer you are standing in now: the 52-Week Curriculum (your week-by-week map), the exams, the Drill Decks, the Capstone, and this handbook.

The **52-Week Curriculum** is the map that sequences all of it across four terms. This handbook is the rulebook underneath the map: the map says *what* to study each week; this book says *how* studying counts, how it is graded, and when you may move on.

One idea runs through everything below: **you do not advance by finishing pages. You advance by passing gates.** A gate is a short list of things that must be true — an exam passed, a challenge completed, a journal that proves it. The gates are not there to slow you down. They are there so that the first time you meet a hard lesson, you meet it with fake money.

Paper trading means practicing with a pretend account — real prices, real decisions, fake dollars. Almost everything in this school happens on paper first. Treat that as a feature, not a delay: a blown paper account costs you a weekend of honest review. The same lesson with real money costs rent.

The Weekly Rhythm

Every week in this school has four beats, in this order:

- **Study** — read the assigned modules. Slowly. With the glossary open. Reading a module once is exposure; the learning happens when the other three beats force you to use it.
- **Drill** — short, fast reps: glossary flashcards (PP-12) and the Drill Decks. Drills build reflexes — the sizing formula, the breakeven math, the risk rules — until they come out of you without thinking.
- **Practice** — apply it on paper: workbook exercises (PP-01 → PP-05) and paper trades, planned before they are taken and journaled after they close.
- **Review** — once a week, sit down with the Weekly Review page (PP-08) and grade your own week: what you studied, what you practiced, where you broke a rule, and the one fix for next week.

Skip a beat and the week does not count as complete. Study without practice is trivia. Practice without review is just repeating your mistakes on schedule.

Here is a model week of roughly six hours — adapt the clock to your life, but do not drop a beat:

Day	Beat	What you do
Monday	Study	Read this week's first module; write down every term you had to look up
Tuesday	Drill + Practice	20 minutes of flashcards or drills; work the workbook section for Monday's reading
Wednesday	Study	Read the second module; do its Check Yourself out loud before peeking at the answers
Thursday	Drill + Practice	20 minutes of drills; paper trades or workbook problems from Wednesday's reading
Friday	Practice	Paper session; every position planned in the journal before it is opened
Weekend	Review	45 minutes with the Weekly Review page; grade the week, name one fix, file everything in the binder

> **TIP**
> Short on time? Stretch the calendar, not the standard — a curriculum "week" may take you ten days. What you may not do is declare a week done with a beat missing.

How Grading Works

Different tools grade different things. Here is each one, plainly.

Check Yourself — the honesty check

Every module ends with five Check Yourself questions. They are **self-graded and unrecorded** — nobody sees the score but you. Their job is to catch fake learning while it is still cheap. House standard: if you miss more than one of the five, you have not finished the module. Re-read the sections you missed, then ask yourself the questions again tomorrow. Peeking at the answers first and nodding along is the single most common way students lie to themselves in this school. Do not do it.

Workbooks — graded practice

The five workbooks (PP-01 → PP-05) come with fully worked answers. They are graded by **completion and correction**: every exercise attempted, every error found, understood, and corrected in your notes. An exercise you skipped teaches nothing. An error you corrected teaches twice: the right method, and the sight of your own weak spot. Your workbook standard is not a percentage. It is: *nothing left blank, nothing left wrong.*

Drill Decks and flashcards — accuracy over time

Drills are timed, fast reps — a situation, your call, the answer on the back. You log your accuracy in the binder (date, deck, score). The standard is a trend, not a single score: by the end of a term, your first-pass accuracy on that term's decks should be climbing toward clean. A deck you score poorly on is not an embarrassment; it is a map pointing at the module to re-read.

Exams — the 80% line

Exams are different. They are **closed-book, written, and graded against an answer key** — the Level 1 Final Exam (PP-10, key in PP-11), the Level 2 Exam, one exam per Level 3 track, and the Capstone board. The pass mark across the whole school is **80%**. Not 79. The line is the line.

Every exam question you miss comes with a module code to re-study — the key tells you exactly where the answer lives. An exam result is recorded in your binder with the date, the score, and the modules you had to re-study. An exam you have not taken does not exist. An exam you failed and forgot does not exist either — see the remediation section below.

The 30-Trade Paper Challenge — graded on rule-following

The Paper Challenge (PP-09) is thirty paper trades on one setup, and it is the most misunderstood grade in the school: **you are graded on rule-following, not on profit.** Plan written before entry. Size set by the stop, not by a feeling. Exit taken where the plan said. Journal complete. A challenge where you lost paper money but followed every rule **passes**. A challenge where you made paper money by breaking rules, oversizing, and improvising **fails** — because the market just paid you to build a habit that will bill you later, with real money. Luck is not a pass. Process is.

The Capstone — the board

The Capstone (CAP-01, graded against CAP-02) is a simulated trading week: five sessions of worked scenarios, real decision points, positions handed to you mid-story. You write the plan, size the positions, and journal the week as if it were real. It is graded point by point against model answers, and every common wrong answer points back to the module that fixes it. The Capstone is the closest thing this school has to a board exam — and the final gate before real money is discussed at all.

Promotion: The Gates Between Levels

You may read ahead whenever you like — it hurts nothing. But you are not promoted, and the next level's practice work does not start, until the gate behind you is passed.

Gate 1 — before Level 2

- Every Level 1 module read, with Check Yourself passed honestly (no more than one miss, re-read until true).
- All five workbooks complete — nothing blank, nothing left wrong.
- The Level 1 Final Exam passed at 80% or better, result recorded in the binder.
- A written trading plan exists (PP-06) — even a simple one. A student without a plan is not ready for advanced material; they are ready to be confused at a higher level.
- A journal habit exists: your paper trades so far are written down (PP-07), not remembered.

Gate 2 — before a Level 3 track

- Level 2 complete, and the Level 2 Exam passed at 80% or better.
- The 30-Trade Paper Challenge completed and passed on rule-following.
- Weekly Reviews current — at least the last four weeks filed in the binder.
- One track chosen. Not two. Level 3 is where you stop going wide and start going deep; running two tracks at once is how students stay beginners in two arenas instead of becoming dangerous in one.

Gate 3 — before real money

This is the serious one, so it is stated exactly:

- The Capstone passed.
- A clean Paper Challenge on record *in your chosen arena* — rule-following grade, complete journal.
- A written plan that you have demonstrably followed on paper — the binder proves it, your memory does not.
- A starting size so small it feels almost silly, a per-trade risk at or under the school standard of 1% of the account, and a daily loss limit written down before the first real trade.
- Money you can genuinely afford to lose. Not "afford to lose" as a slogan — money whose loss would not change your rent, your bills, or your sleep.

If any line of Gate 3 is not true, real money waits. That is not the school doubting you. That is the school working as designed.

> **RISK**
> No gate in this school makes trading safe, and no certificate here makes you a professional. The gates only prove you have done the work in the right order. The market will still test you — the gates make sure it tests your process, not your unpreparedness.

The Code of the House

Four rules. They apply to every level, every arena, every account — paper or real.

- **Paper first.** Every new arena, structure, and setup is practiced on paper until its gate is passed. No exceptions for confidence. Confidence is not a credential; the binder is.
- **Journal everything.** If a trade is not written down — plan, size, entry, exit, and what you were thinking — it does not count toward any gate, any challenge, or any claim you make about your own record. Unjournaled wins are stories. Unjournaled losses are leaks.
- **No borrowed conviction.** Never take a trade because someone else is in it — not a friend, not a chat room, not a video. If you cannot state the entry, the stop, and the target in your own words, in your own plan, you do not have a trade. You have a ticket to someone else's.
- **Risk rules are not optional.** The 1% per-trade standard, the daily stop, position size set by the stop, no adding to a loser to "get back to even." These do not bend on a strong feeling, a hot streak, or a "once in a while" exception. The day the risk rules become optional is the day the account starts dying — the only question is the date it finishes.

Underneath all four sits one sentence: **process over outcome.** A good process with a losing week is a student on the way. A broken process with a winning week is a debt coming due.

When It Goes Wrong: Failing and Blowing Up

It will go wrong. The only students who never fail an exam or blow up a paper account are the ones who never actually try. What matters is what happens next — and here, that is a procedure, not a mood.

If you fail an exam (below 80%)

1. **Do not retake it the same day.** A same-day retake tests your memory of the answer key, not your understanding.
2. **Work the key.** Every missed question names the module that teaches it. Re-study those modules — actually re-study, with the workbook sections that match.
3. **Wait at least a few days**, then retake. Record both attempts in the binder. The fail stays in your records on purpose: it is the page that shows where you were weak and fixed it.
4. **Fail twice?** Stop retaking. Go back and repeat the full term block the exam covers — readings, workbooks, drills — then test again. Two fails is the material telling you the foundation has a hole in it. Patching scores is pointless; patch the foundation.
5. There is no shame column in the binder. There is only a record column. Fill it honestly.

If you blow up a paper account

A paper account is "blown" when it hits the challenge drawdown limit or the losses came from breaking the rules repeatedly. (A **drawdown** is how far the account has fallen from its highest point.) Here is the reset:

1. **Stop trading it.** Today. A blown account that keeps trading is just practicing the blow-up.
2. **Do the autopsy, in writing.** Go through the journal and label every loss honestly: *planned loss* (the setup failed, rules held — these are fine), *rule break*, *oversizing*, *revenge trade* (trading angry to win it back), or *no plan at all*. Count them. Most blown accounts die of one repeated cause, not twenty different ones.
3. **Name the one fix.** Not five fixes — one. The single rule whose violation did the most damage.
4. **Start the new paper account only after the autopsy exists.** Fresh balance, same arena, the one fix written at the top of the journal. The challenge restarts at trade 1 — no carrying over the good trades from the wreck.

5. **Real money stays locked** until a clean challenge is on record. No exceptions, no "it was only paper, I'm actually fine." The paper account is where you prove that claim, or disprove it for free.

Read those steps again and notice what they are not: they are not punishment, and nobody here is disappointed in you. Every trader who lasts has a version of this story. The ones who last did the autopsy instead of just feeling bad, and the reset instead of just feeling determined. Be kind to yourself and firm with the procedure — in that order, both completely.

Your Records: The Binder

Every student keeps a **binder** — a physical binder, a folder on your computer, whatever format you will actually maintain. Format does not matter. Completeness is the entire game. Your binder holds:

- **Your trading plan** (PP-06) — the current version, plus every older version, dated. Plans evolve; the dated stack proves you changed them on weekends, by decision — not mid-trade, by emotion.
- **Your journals** (PP-07) — every paper trade and, one day, every real one. Plan, size, entry, exit, and the honest sentence about what you were thinking.
- **Your exam results** — date, score, and the modules each miss sent you back to. Fails included. Especially fails.
- **Your challenge logs** (PP-09) — all thirty trades, the rule-following grades, and the verdict.
- **Your Weekly Reviews** (PP-08) — the four-beat grade for every week, with the one fix named each time.
- **Your drill log** — date, deck, first-pass accuracy. The trend line of your own fluency.
- **Your autopsies** — every blown account and failed gate, with the one fix each one produced.

The binder is your evidence. When a gate asks "must be true," the binder is how you know — not how you feel, not what you remember: what you can show. Students who keep it can see themselves improving on paper before the account ever shows it. Students who don't are navigating by mood.

> **TIP**
> Five minutes of filing after a session beats an hour of reconstruction on Sunday. The binder is maintained in the moment or it is maintained never.

Common Mistakes Students Make

- **Reading ahead and calling it progress.** Finishing Level 2's reading in a weekend while the Level 1 Exam sits untaken. Pages are not gates.
- **Treating paper like a video game.** Oversizing fake money, skipping the journal "because it isn't real." You are not practicing trading when you do that. You are practicing carelessness — and that transfers to the real account perfectly.
- **Retaking exams until the score behaves.** Memorizing an answer key produces a certificate and an unprepared trader. The remediation path exists because the score is the least important part of failing.
- **Trading two tracks, three setups, and a borrowed idea at once.** Breadth feels productive. Depth is productive.
- **Quitting after the first blow-up.** The blow-up is not the end of the curriculum. Handled by the procedure above, it is one of the most valuable pages in it.

Chapter Summary

- Alpha Academy advances by **gates, not pages** — each level requires proof, recorded in the binder, before the next level's practice begins.
- Every week runs four beats in order: **Study → Drill → Practice → Review**. A week missing a beat does not count.
- Grading matches the tool: Check Yourself is an honesty check, workbooks are graded on completion and correction, drills on accuracy over time, and **exams at a hard 80% pass mark**.
- The 30-Trade Paper Challenge is graded on **rule-following, not profit** — a rule-breaking win fails; a by-the-book loss passes.
- The Capstone is the board: a simulated week, graded point by point, and the final gate before real money.
- The Code of the House never bends: **paper first, journal everything, no borrowed conviction, risk rules are not optional.**
- Failing an exam means re-studying the named modules and retaking after a few days — twice means repeating the block. Blowing a paper account means stop, autopsy in writing, name one fix, restart at trade 1.
- The binder — plan, journals, exam results, challenge logs, weekly reviews, drill log, autopsies — is the student's evidence. If it is not written down, it did not happen.

> **RULE**
> Nobody at Alpha Academy gets promoted for finishing. You get promoted for proving it — on paper, in the journal, through the gate.



CU-01

THE 52-WEEK CURRICULUM

Four terms, fifty-two weeks — every book in the school, assigned.

Curriculum & Assessment · Team Alpha Trading

The 52-Week Alpha Curriculum

Welcome to the full Alpha Academy school year. This document turns the library into a schedule: what to read, what to practice, and what evidence proves you are ready to move on. A **term** is a 13-week block of study. A **pass mark** is the standard you must meet before the next week counts. It is evidence — a score, a completed calculation, or a clean journal entry — not a feeling that the material seemed familiar.

You will use only the Academy library: Level 1 (**AA**), the Practice Pack (**PP**), Level 2 (**AA2**), Level 3 (**AA3**), and Worked Examples (**EX**). Keep **AA-24** open whenever a word is new in Term 1, and keep **AA-25** beside your practice work. From Term 2 onward, use **AA2-20** as the expanded dictionary.

> **NOTE**
> This is an education plan, not financial advice. Complete the year in a paper account — an account that simulates trades without real money. Passing a week never means a real trade is safe or likely to make money.

How Each Week Works

Plan on about **five to seven hours per week**. If your schedule is smaller, split a curriculum week across two calendar weeks; do not skip the pass mark.

- **Three study blocks (45–60 minutes each):** Read the assigned material once for the story, then again for the numbers. Write down every term you cannot define out loud and look it up before the block ends. Finish each module's **Check Yourself** questions without looking at the answers.
- **Two practice blocks (60–90 minutes each):** Do the assigned workbook, example, or paper-trading work. Show calculations step by step. For an **EX** document, cover **What Happened** and **The Lesson** until you have calculated the result yourself.
- **One review block (30–45 minutes):** Mark every error, write why it happened, and redo the missed item. Record the week's score and unfinished items in **PP-07**. Use the review pages in **PP-08** at the end of each week.

A module is not complete when the last page is read. It is complete when you can explain the idea, do its math, and recognize the common mistake without help. If you miss a pass mark, repeat the practice — not necessarily the whole week — and test again.

Your Study Kit and Curriculum Record

Before Week 1, set up four simple records. They can be paper pages, printed Practice Pack pages, or digital copies, but keep them together so your evidence is easy to inspect.

- **Reading log:** Write the date, document code, pages or sections finished, and three ideas you can now explain. A check mark alone is not a useful record; the three explanations show whether reading turned into understanding.
- **Calculation sheet:** Keep the work for every premium, breakeven, position-size, futures-dollar, payoff, and expectancy problem. Write the formula first, substitute the numbers second, and label the answer in dollars, points, ticks, shares, or contracts. Most “math mistakes” are really unit mistakes.
- **Error log:** Record the question or trade, what you did, what should have happened, and the document code that teaches the correction. Review this log at the start of each review block. A repeated error

becomes the next week's first assignment.

- **Evidence folder:** Save completed workbook pages, challenge logs, score sheets, plan versions, and Board Week journals. At graduation, this folder — not your memory of having read the library — is what demonstrates completion.

Use the same order every time you study: read, close the document, explain, calculate, check, and record the miss. This feels slower than highlighting pages, but it is the difference between recognizing an answer when you see it and producing the answer when a decision depends on it.

When Life Interrupts the Calendar

Missing days does not break the curriculum. Missing evidence does. If you stop for a week, return to the last week whose pass mark was fully met; do not restart the whole term unless your records show that the earlier work was never tested. If you have forgotten vocabulary but still pass the calculations, review **PP-12** or **AA-24** for two short blocks and retest. If you can define the words but cannot do the work, repeat the practice block instead.

Never compress three curriculum weeks into one weekend to “catch up.” The spacing is part of the design: it gives you time to forget a little, retrieve the idea, correct the error, and discover whether the skill stayed with you. A slower year with complete records is worth more than a fast pass through every PDF.

Term 1 — Foundations (Weeks 1–13)

Term 1 builds the language of the whole market. You will move from what a stock is to orders, charts, analysis, options, futures, other markets, risk, psychology, planning, accounts, and safety. The Practice Pack workbooks are not optional extras: they are where reading becomes skill.

Week	Read	Practice	Pass Mark
1	AA-00, AA-01, AA-02	PP-01, AA-01 and AA-02 sections; set up a paper-trading section in PP-07	Explain what a market, exchange, index, and share are without notes; score at least 4/5 on each module's Check Yourself after review
2	AA-03, AA-06	PP-01, AA-03 and AA-06 sections	Define ticker, market cap, dividend, split, bid, ask, and spread out loud; complete the workbook calculations and correct every miss
3	AA-04, AA-05	PP-01, AA-04 and AA-05 sections; use PP-13 while labeling candle parts	Choose the right order type in each workbook scenario; label open, high, low, close, body, and wicks without help

Week	Read	Practice	Pass Mark
4	AA-07, AA-08	PP-02, AA-07 and AA-08 sections; use PP-14 as the pattern reference	Identify trend, support, resistance, breakout, and failed breakout in the workbook cases; explain why a pattern is not a guarantee
5	AA-09, AA-10	PP-02, AA-09 and AA-10 sections	Read the workbook's company figures, identify what an earnings report can change, and connect an interest-rate, inflation, jobs, or earnings event to a market scenario
6	AA-11, AA-12	PP-03, AA-11 and AA-12 sections	For practice contracts, calculate premium cost, breakeven, and maximum loss; state how delta, theta, and implied volatility would help or hurt each position
7	AA-13, AA-14	PP-03, AA-13 and AA-14 sections; use PP-15 while checking each structure	Build payoff tables for the assigned strategies; state maximum gain, maximum loss, and breakeven before checking the answers
8	AA-15, AA-16	PP-04, AA-15 and AA-16 sections	Convert points and ticks into dollars for ES, MES, NQ, MNQ, GC, and CL; explain margin and contract rollover; distinguish an ETF from a mutual fund
9	AA-17, AA-18	PP-04, AA-17 and AA-18 sections	Complete the currency, bond-yield, rate, and commodity scenarios; name one specific danger in each market before checking the key

Week	Read	Practice	Pass Mark
10	AA-19, AA-20	PP-05, AA-19 and AA-20 sections; post PP-16 where you study	Use the position-size formula correctly on every drill; identify the emotion or bias in each psychology scenario and write the planned response
11	AA-21, AA-22	PP-05, AA-21 and AA-22 sections; draft your plan in PP-06 and start PP-07	Produce a one-page paper-trading plan with market, hours, maximum risk, stop rule, and review time; explain margin, settlement, pattern-day-trader, and wash-sale basics in your own words
12	AA-23	PP-05, AA-23 section; finish PP-06; set daily and weekly checklists from PP-08	Spot every planted scam or safety failure in the workbook scenarios; your plan and journal are ready to use, with no blank risk fields
13	AA-24, AA-25	Redo only the missed sections from PP-01 through PP-05; complete a full weekly review in PP-08	Find and define 25 assigned glossary terms without a search shortcut; every workbook miss has been corrected and explained; score at least 4/5 on a self-selected Check Yourself set from five different modules

Term 2 — The Market Underneath (Weeks 14–26)

Term 2 asks what is happening behind the price: displayed orders, completed trades, market-wide participation, volatility, advanced structures, account-wide exposure, systems, long-term investing, retirement accounts, taxes, and history. The flashcards in **PP-12** become a weekly habit. Notice that **PP-12 has no X section**; the schedule follows the sections that exist. The Level 1 Final Exam is deliberately placed at the end of this term, after spaced review has had time to work.

Week	Read	Practice	Pass Mark
14	AA2-00, AA2-01, AA2-02	PP-12, Part 1 and Part 2, letters A–B; annotate three paper-session charts in PP-07	Explain the difference between a displayed order and a completed trade; define at least 90% of the A–B terms on the second attempt
15	AA2-03, AA2-04	PP-12, letters C–D; build a one-page market dashboard in PP-07 from the gauges taught this week	Interpret aggressive buying or selling, breadth, TICK, and put/call evidence without treating any one gauge as proof
16	AA2-05, AA2-06	PP-12, letters E–F; work EX-02, Examples 1–5, calculating each result before reading the lesson	Calculate an expected move from implied volatility; explain IV crush and why being right about direction can still lose money
17	AA2-07, AA2-08	PP-12, letters G–H; make payoff tables for one calendar, one diagonal, and one butterfly from the modules	State each structure's maximum loss from its terms; identify the undefined-risk danger described in AA2-08 without notes
18	AA2-09, AA2-10	PP-12, letters I–J; work EX-04, Examples 1–4	Add a small practice portfolio's directional exposure on paper; convert every futures result in EX-04 by both points and ticks, with no dollar errors
19	AA2-11, AA2-12	PP-12, letters K–L; work EX-03, Examples 1–3	Write an opening plan and a swing plan that include invalidation, overnight risk, and a reason to take no trade
20	AA2-13	PP-12, letters M–N; create a simple rules log in PP-07 and test the module's expectancy examples by hand	Calculate expectancy from a win rate, average win, and average loss; explain overfitting and why a pretty test result is not proof

Week	Read	Practice	Pass Mark
21	AA2-14, AA2-15	PP-12, letters O–P; mark a practice chart with the environment, flip, and wall concepts from the readings	Explain positive and negative gamma environments in plain English; state what a level cannot tell you and what other evidence you would require
22	AA2-16, AA2-17	PP-12, letters Q–R; add a long-term section to PP-06 that is separate from the trading plan	Build a sample allocation, state the job of each holding, and explain account-type and employer-match basics without inventing a current contribution limit
23	AA2-18, AA2-19	PP-12, letters S–T; make a timeline of the three case studies and list the risk failure in each	Distinguish the tax topics at the education level taught; name the shared lesson across 2008, 2020, and the GameStop episode without blaming one cause for everything
24	AA2-20; review AA2-02, AA2-03, AA2-04	PP-12, letters U–V; work EX-01, Examples 1–5 before reading each lesson	Define at least 90% of U–V terms on the second attempt; calculate every EX-01 position size and loss correctly
25	AA2-20; review AA2-05 through AA2-15 weak spots	PP-12, letters W, Y, and Z; work EX-06, Examples 1–3; complete a term review in PP-08	Show the same trade under the disaster rules and Academy rules; every number matches the answer you calculated before reading the lesson
26	AA-24, AA-25 for final Level 1 review	Take PP-10 closed-book; grade only afterward with PP-11; redo the Level 1 workbook section named for every miss	Score at least 80% on PP-10; write the module to re-study beside every wrong answer; no uncorrected errors remain in PP-07

Term 3 — Choose Your Arena (Weeks 27–39)

Choose **one** Level 3 track and stay with it. **Track A** is 0DTE options: **AA3-01 through AA3-05**, matched with **EX-03**. **Track B** is futures day trading: **AA3-06 through AA3-10**, matched with **EX-04**. **Track C** is swing and position trading: **AA3-11 through AA3-15**, matched with **EX-05**. In the table, "Track Module 1" means AA3-01, AA3-06, or AA3-11, according to your track; the same pattern applies to Modules 2–5. Everyone also works **EX-06**, because risk disasters are not arena-specific.

The **PP-09** 30-Trade Paper Challenge begins after you study your track's risk module. A trade counts only when it follows the setup and plan you wrote in advance. Never invent a trade just to reach a number. If too few valid chances appear, carry the remaining count forward; a blank or "no trade" journal entry is better practice than a forced trade.

Week	Read	Practice	Pass Mark
27	AA3-00; Track Module 1: AA3-01, AA3-06, or AA3-11	Work EX-06, Example 1; write your arena choice and its main risk in PP-06	Name one arena only; explain its defining risk and why the other two tracks are parked until this one is finished
28	Track Module 2: AA3-02, AA3-07, or AA3-12	Work the first matched example: EX-03 Example 1, EX-04 Examples 1–2, or EX-05 Example 1; begin PP-09, Step 1	Reproduce the structure, opening-range, or position-building math without the document open; your draft challenge setup has entry, exit, invalidation, and maximum risk fields completed
29	Track Module 3: AA3-03, AA3-08, or AA3-13	Work EX-03 Example 2, EX-04 Example 3, or EX-05 Example 2; finish PP-09, Step 1	Explain the timing, day-type, or options-structure choice in the example; your challenge plan states when you will not trade
30	Track Module 4: AA3-04, AA3-09, or AA3-14	Work EX-03 Example 3, EX-04 Example 4, or EX-05 Example 3; read all of PP-09's Rules, R, and Plan Grade sections	Calculate risk before outcome for every assigned example; write a daily or per-trade loss limit and the exact action you will take when it is reached
31	Track Module 5: AA3-05, AA3-10, or AA3-15	Start PP-09, Trades 1–10; target Trades 1–3 only if valid setups occur; log each trade or no-trade decision in PP-07	Every taken trade has a prewritten plan, size calculation, stop or invalidation, exit, and Plan Grade; no trade is justified after the fact

Week	Read	Practice	Pass Mark
32	Re-read Track Modules 1–2	Work EX-06, Example 2; target PP-09 Trades 4–7; complete PP-09, Week 1 Check-In if the first log block is under way	Your journal shows the same process on winning and losing trades; identify one repeated execution error and the correction you will test next
33	Re-read Track Module 3	Work EX-06, Example 3; target PP-09 Trades 8–10 and finish the Trades 1–10 log block	Recalculate each futures, options, or share position from entry to exit; no unexplained dollar amount appears in the log
34	Re-read Track Module 4	Start PP-09, Trades 11–20; target Trades 11–14; complete PP-09, Week 2 Check-In	Risk stayed inside the written cap on every trade; any rule break is marked as a rule break, even if the trade made simulated money
35	Re-read Track Module 5	Target PP-09 Trades 15–17; redo the matched EX document's hardest example without reading its lesson first	Your routine can be followed from the page by another student; your recalculated example matches the document's result
36	Review your two weakest track modules, chosen from your journal evidence	Target PP-09 Trades 18–20 and finish the Trades 11–20 log block; complete a weekly review in PP-08	Name the weakness with journal evidence, not mood; show the re-study questions answered at 4/5 or better
37	Review AA-19 and AA-20	Start PP-09, Trades 21–30; target Trades 21–24; complete PP-09, Week 3 Check-In	Your maximum planned risk, actual simulated loss, and R result agree across PP-07 and PP-09; emotional triggers are recorded before they repeat
38	Review AA2-13 and your track's risk module	Target PP-09 Trades 25–27; audit a sample of five journal entries against PP-06	Compute the challenge expectancy so far from wins, losses, and R; state whether the sample is too small to prove an edge — it is

Week	Read	Practice	Pass Mark
39	Review your track's playbook or routine module: AA3-05, AA3-10, or AA3-15	Target PP-09 Trades 28–30; complete PP-09, Week 4 Check-In and Final Scorecard, or carry the exact remaining count into Week 40	Present 30 fully logged trades or an exact carry-forward list; the scorecard grades rule-following separately from simulated profit and loss

Term 4 — Mastery and the Board (Weeks 40–52)

Term 4 gives you two honest choices. Take the **Depth Route** if you want to master the arena you chose in Term 3. Take the **Second-Track Route** if your first track is complete and you deliberately want a second arena. Do not drift between them. “Next Track Module” below means the next unfinished module in a track you have not completed: AA3-01 through AA3-05, AA3-06 through AA3-10, or AA3-11 through AA3-15. On the Depth Route, replace it with a closed-book re-study of the same-numbered module from your first track.

The **Board** is Alpha Academy's final review process. It is not a license, a job qualification, or proof that real-money trading will be profitable. It tests whether your plan, calculations, journal, and behavior agree with one another under review.

Week	Read	Practice	Pass Mark
40	AA3-00; Next Track Module 1 or Depth Review 1	Finish any PP-09 trades carried from Week 39; complete a full plan audit in PP-08	Choose Depth or Second Track in writing; every carried trade is completed or formally closed as unfilled in the journal
41	Next Track Module 2 or Depth Review 2	Work the newly matched EX example set: EX-03, EX-04, or EX-05; finish PP-09 Final Scorecard if it is still open	Explain the new or repeated arena's core structure and calculate its example results without notes
42	Next Track Module 3 or Depth Review 3	Redo the matched EX document from Week 41, this time writing your answer before each lesson	At least 90% of calculations match on the first attempt; every remaining miss is traced to the module that teaches it

Week	Read	Practice	Pass Mark
43	Next Track Module 4 or Depth Review 4	Take the five Check Yourself questions from each track module studied so far, closed-book; audit total open risk on a practice portfolio	Score at least 90% across the self-test; state the action required when planned risk exceeds your written cap
44	Next Track Module 5 or Depth Review 5	Produce the final version of your plan in PP-06; set PP-07 and PP-08 for Board Weeks	Another student could follow the plan without asking what a term means, when to stop, or how much risk is allowed
45	AA2-02, AA2-03, AA2-04	Answer all Check Yourself questions from AA2-02 through AA2-04; work EX-01 again, calculations first	Score at least 90%; explain why displayed size, order flow, and breadth can inform a decision but cannot make it for you
46	AA-12, AA-13, AA2-05, AA2-06, AA2-07, AA2-08, AA2-09	Answer the Check Yourself questions from AA2-05 through AA2-09; work EX-02 again, payoff tables first	Build every assigned payoff table correctly; distinguish a defined-risk structure from an undefined-risk structure at a glance
47	AA-15, AA2-10, AA2-11	Answer all Check Yourself questions from AA2-10 and AA2-11; work EX-04 again, points and ticks both shown	No futures dollar conversion errors; explain day margin as a broker-set deposit and why low margin does not mean low risk
48	AA2-12, AA2-16, AA2-17	Answer all Check Yourself questions from AA2-12, AA2-16, and AA2-17; work EX-05 again	Separate trading capital from long-term money in PP-06; identify gap risk and correlation risk in every swing example
49	AA2-13, AA2-18, AA2-19	Answer all Check Yourself questions from AA2-13, AA2-18, and AA2-19; work EX-06 again	Explain expectancy, overfitting, and the three case-study lessons; state which tax questions require a qualified professional

Week	Read	Practice	Pass Mark
50	AA3-00 and your first track's five modules	Take all 25 Check Yourself questions from your first track, closed-book; complete the Board checklist in PP-08	Score at least 23/25; correct every miss in writing and name the exact section you re-studied
51	Your final PP-06 plan; AA-25 for reference only	Complete five separate paper sessions on five different days in PP-07; a session may end as a documented no-trade decision	All five sessions have a pre-session plan, risk limit, contemporaneous notes, and post-session review; zero trades are added or edited afterward
52	Your first track's risk module and playbook or routine module	Complete the final review in PP-08; compare the first and final versions of PP-06; assemble your scores, challenge record, and journal evidence	Meet the Graduation Standard below in full; any unmet item becomes a written repeat assignment, not a reason to lower the standard

Common Beginner Mistakes

- **Treating the calendar as a race.** The 52 weeks are a minimum structure, not a deadline. Repeating a week is part of the curriculum.
- **Reading every document and practicing none of it.** If there is no calculation, journal entry, or test score, the week did not happen.
- **Changing the plan after seeing the result.** A losing trade can follow the plan; a winning trade can break it. Grade the decision you made with the information you had.
- **Forcing challenge trades.** PP-09 measures whether valid setups were handled correctly. It does not reward activity for its own sake.
- **Using profit as the pass mark.** Simulated profit in a small sample can come from luck. Accurate math, controlled risk, complete records, and repeatable behavior are the evidence this curriculum trusts.
- **Opening a second arena too early.** A second track is a Term 4 choice after the first track is complete — not a way to escape a difficult week.

Chapter Summary

- The year has four 13-week terms: Foundations, the Market Underneath, one chosen arena, and Mastery and the Board.
- Every week has assigned reading, assigned practice, and a pass mark based on evidence.
- Term 1 covers AA-01 through AA-23 and all five workbooks, then teaches you to use AA-24 and AA-25 as working references.

- Term 2 covers AA2-00 through AA2-20, completes PP-12, revisits the Worked Examples, and ends with the Level 1 Final Exam in PP-10.
- Term 3 is deliberately narrow: one AA3 track, its matching EX document, EX-06, and the PP-09 paper challenge.
- Term 4 offers depth in the same arena or one second track, followed by cumulative self-tests and a five-session Board review.
- The curriculum never requires real money, a winning week, or a forced trade.

Check Yourself

1. What are the three kinds of work in every curriculum week?
2. What should you do if you miss a week's pass mark?
3. Which Practice Pack documents contain the Level 1 Final Exam and its answer key?
4. Why does Term 3 allow only one Level 3 track at a time?
5. Why is simulated profit by itself not the graduation standard?

Answers: 1) Study blocks, practice blocks, and a review block. 2) Repeat the missed practice and test again; split the week across more calendar time if needed. 3) PP-10 is the exam and PP-11 is the key, which you open only after finishing. 4) The track is meant to build depth; splitting attention prevents the student from mastering any arena's structures, risks, and routine. 5) A small simulated sample can be lucky, while the Board is looking for accurate math, controlled risk, complete journals, and behavior that matches a written plan.

The Graduation Standard

You graduate from the 52-Week Alpha Curriculum when **all** of the following are true:

- You scored at least **80% on PP-10**, graded with PP-11, and corrected every missed question back to its source module.
- You completed **PP-09 with 30 fully logged paper trades**, or completed a formally approved carry-forward and then finished all 30 before the Board; every trade has a plan, size, invalidation, exit, result in R, and Plan Grade.
- You scored at least **90% on the cumulative Level 2 review questions assigned in Weeks 45–49** and at least **23/25 on your first track's Check Yourself questions in Week 50**, with all misses corrected.
- Your final **PP-06** plan is complete, specific, and consistent with the trades in **PP-07**. It names the arena, schedule, setup conditions, position-size method, maximum loss rules, no-trade conditions, and review process.
- Your five Board Week sessions show **zero undocumented trades, zero edited-after-the-fact entries, and zero breaches of your own maximum-risk rule**.
- You can explain, without notes, what you still do **not** know and what you will practice next.

Graduation means you have built a disciplined learning record. It does not mean the market owes you a result, that a strategy has been proven, or that real-money trading is appropriate for your finances. If real-money trading is ever considered, it is a separate personal and financial decision outside this curriculum.

> **RULE**
> Do not advance on exposure; advance on evidence.



AA-02

WHAT IS THE STOCK MARKET?

Markets, exchanges, indexes, and why prices move — from absolute zero.

Alpha Academy · Team Alpha Trading

What Is the Stock Market?

If you have never heard of the stock market, you are in exactly the right place. This chapter starts from absolute zero. We will not use a single finance word without stopping to explain it in plain English first.

By the end of this chapter, you will know what the stock market actually is, why it exists, who is in it, when it is open, and what makes prices go up and down. You will also understand the difference between **investing** and **trading** — two words people throw around like they mean the same thing. They do not.

> **NOTE**
> This chapter is education only. It is not financial advice, and nothing here is a recommendation to buy or sell anything. The stock market can make money and lose money, and most beginners lose money when they first start. Learning how it works — before risking a dollar — is the smart way in.

Start With a Regular Market

You already know what a market is. A farmers market is a place where farmers bring vegetables and shoppers bring money, and they trade. The stock market works the same way, with two differences:

- Instead of vegetables, the thing being bought and sold is **stock**.
- Instead of a parking lot, the trading happens on computers, in huge organized systems called **exchanges** (we will explain those in a minute).

So what is **stock**? Stock is a piece of ownership in a company. When a company divides its ownership into millions of equal little pieces, each piece is called a **share**. One share is one tiny slice of the whole company. If you own shares, you are a **shareholder** — a part-owner of that business.

Think of a company as a pizza cut into a million slices. One slice is almost nothing by itself. But it is a real slice. If the pizza shop becomes famous and the whole pizza becomes worth more, your slice becomes worth more too.

Why Would a Company Sell Pieces of Itself?

Good question. Why would the owners of a successful company give away ownership to strangers?

Because growing a business takes money — a lot of it. A company might need cash to build factories, hire thousands of workers, open stores in new countries, or invent new products. It has two main ways to raise that money:

- **Borrow it** from a bank or from lenders, and pay it back with interest. Money paid for the use of borrowed money is called **interest**.
- **Sell ownership** — give the public pieces of the company in exchange for cash, and never have to pay that cash back.

Selling stock is the second path. The very first time a company sells stock to the public, it is called an **IPO**, short for **initial public offering** — "initial" because it is the first time, "public" because anyone can buy, "offering" because shares are being offered for sale. After the IPO, the shares trade every day between regular people and big institutions, and the company itself is mostly out of the picture — money changes hands between buyers and sellers, not with the company.

So the stock market exists for two big reasons:

- It gives companies a way to raise money to grow.
- It gives regular people a way to own a piece of businesses they could never afford to buy whole. You cannot buy Apple. But you can buy one share of Apple.

What Is an Exchange?

An **exchange** is the organized marketplace where buying and selling happens. It is the referee and the scoreboard at the same time. The exchange matches buyers with sellers, records every trade, publishes the prices, and enforces the rules so nobody can cheat.

The two biggest stock exchanges in the United States are:

Exchange	Plain-English Description
NYSE (New York Stock Exchange)	The oldest and largest US exchange, founded in 1792, home to many huge, long-established companies like Walmart and Coca-Cola. It still has a famous trading floor in New York City, though most trading is done by computers.
Nasdaq	A fully electronic exchange — no trading floor, just computers. Home to most big technology companies, like Apple, Microsoft, and Nvidia.

When you place an order to buy a stock through an app on your phone, you never talk to the exchange directly. You use a **broker** — a licensed company (and its app or website) that takes your order and routes it to an exchange for you. Robinhood, Webull, Fidelity, and Charles Schwab are brokers. The broker is your doorway into the market.

Who Are the Players?

The market is not one crowd. It is several very different groups, all trading with each other:

- **Investors** — people and organizations who buy stock planning to hold it for months or years. They are betting the company will be worth more in the future. This group includes regular people saving for retirement.
- **Traders** — people who buy and sell much more actively, sometimes holding a stock for only minutes or hours. A **day trader** is a trader who opens and closes all positions within the same day. (A **position** is simply whatever you currently own or owe in the market — if you bought 10 shares, your position is 10 shares.)
- **Institutions** — the giants: pension funds, mutual funds, insurance companies, and hedge funds. A **pension fund** manages retirement money for workers. A **mutual fund** pools money from thousands of people and buys a basket of stocks for them. Institutions move so much money that their buying and selling often moves prices by itself.
- **Market makers** — specialized firms whose job is to always be ready to buy or sell a stock, every second the market is open. Like a pawn shop that never closes, they will buy your shares when you want to sell and sell you shares when you want to buy, earning a tiny profit on the small difference between their buying and selling price. Without them, you might click "buy" and find nobody there. They keep the market **liquid** — liquid means you can buy or sell quickly, whenever you want, without moving the price

much.

What Is an Index? Think Scoreboard

You will hear on the news: "The S&P 500 is up today." What is that?

An **index** is a scoreboard number that tracks the overall price of a group of stocks at once. Instead of watching 500 separate companies, you watch one number that sums up how they are doing together. Indexes are not things you can buy directly — you cannot hand someone money and receive "one S&P 500." (You can buy funds that copy an index, covered in a later chapter.)

The three scoreboards you will hear about most:

Index	What It Tracks
S&P 500	500 of the largest US companies, across almost every industry. This is the scoreboard professionals watch most, because it represents the broad US market.
Dow Jones Industrial Average ("the Dow")	Just 30 very large, well-known companies. It is the oldest famous scoreboard, but with only 30 companies it is a narrower view.
Nasdaq-100	The 100 largest non-financial companies on the Nasdaq exchange — heavily loaded with technology companies, so it rises and falls with the tech sector.

When the news says "the market is up," they usually mean one of these scoreboards went up that day.

When Is the Market Open?

The main US stock market session runs **Monday through Friday, 9:30 AM to 4:00 PM Eastern Time**. That is called **regular hours**. The market is closed on weekends and on major US holidays.

There are also extra sessions around the main one:

- **Pre-market** — trading that happens before 9:30 AM, as early as 4:00 AM Eastern on many brokers.
- **After-hours** (or post-market) — trading after 4:00 PM, often until 8:00 PM Eastern.

> **NOTE**
> Pre-market and after-hours sessions are thinner — fewer people trading — so prices can jump around more and it can cost you more to trade. Most beginners should stick to regular hours until they understand the basics cold.

Your broker app shows prices moving almost all day, but the "official" day is that 9:30-to-4:00 window — when the full crowd is in the room.

What Makes Prices Move? Buyers Versus Sellers

Strip away everything else and a stock price is set by one simple tug-of-war: **buyers versus sellers.**

Every trade needs both. If you buy 10 shares, someone else sold those 10 shares to you. The price you see on your screen is simply the price of the **last trade that happened**.

Now imagine the crowd:

- If lots of people want to buy and few want to sell, buyers compete with each other. They offer a little more, then a little more. **The price rises.**
- If lots of people want to sell and few want to buy, sellers compete to find a buyer. They accept a little less, then a little less. **The price falls.**

That is it. That tug-of-war is called **supply and demand** — supply is how much people are willing to sell, demand is how much people are willing to buy. Every fancy explanation you will ever hear — earnings news, interest rates, wars, viral posts — matters only because it changes how badly buyers want in or sellers want out.

A quick example. A small company's stock last traded at $50. This morning the company announces its new product is a huge hit. Thousands of people want to buy, and very few want to sell at $50. Buyers offer $51, then $53, then $55 to convince owners to part with their shares. Within minutes the last trade prints at $55. Nobody "set" that price. The crowd did. The reverse is just as fast: bad news hits, owners rush for the exit, buyers step back, and the price falls until some buyer decides it is worth the risk.

Investing Versus Trading

Both investors and traders buy the same stocks. The difference is the **time horizon** — how long they plan to hold — and what they are really betting on.

	Investing	Trading
Typical holding time	Months to many years	Minutes to weeks
Betting on	The company growing more valuable over time	The price moving, up or down, in the short term
Main homework	Studying the company's business and health	Studying price charts, timing, and risk
Mindset	Owner of a business	Renter of a price move

Neither word means "smart" or "dumb." They are two different games with different skills and risks. This academy teaches both, but it will always tell you which game a lesson belongs to — because mixing them up ("I bought this as a trade, it dropped, so now I will call it a long-term investment") is one of the most expensive habits a beginner can build.

> **RISK**
> Short-term trading is the harder game for beginners. You are competing against professionals and computer systems that do this all day, and most people who try day trading lose money. That is not a reason to fear learning — it is a reason to learn first and risk only small amounts when you do start.

Common Beginner Mistakes

- **Thinking the company gets your money when you buy stock.** After the IPO, when you buy shares, your money goes to the person who sold them to you — not to the company.
- **Thinking an index is something you can buy directly.** The S&P 500 is a scoreboard number. You buy funds or other products that track it.
- **Believing a price moves because "the market decided."** Prices move because real buyers and sellers competed. Ask: who is more eager here?
- **Trading in pre-market or after-hours as a brand-new beginner.** Thin sessions mean jumpy prices and worse fills. Learn during regular hours first.
- **Calling a losing trade "an investment" to avoid admitting a mistake.** Investing and trading are different plans. Pick the plan before you buy, not after you are down.

Chapter Summary

- The stock market is a marketplace where people buy and sell **shares** — tiny pieces of ownership in companies.
- Companies sell stock to the public (starting with an IPO) to raise money to grow, without borrowing it.
- **Exchanges** like the NYSE and Nasdaq are the organized marketplaces that match buyers and sellers and enforce the rules. You reach them through a **broker**.
- The players are investors (long-term), traders (short-term), institutions (the giants), and market makers (who keep things liquid).
- An **index** like the S&P 500, the Dow, or the Nasdaq-100 is a scoreboard tracking a group of stocks — not something you buy directly.
- Regular US hours are 9:30 AM to 4:00 PM Eastern, Monday to Friday, with thinner pre-market and after-hours sessions around them.
- Prices move for one core reason: the tug-of-war between buyers and sellers — supply and demand.
- Investing (months to years, betting on the company) and trading (minutes to weeks, betting on price moves) are different games. Know which one you are playing.

Check Yourself

1. In one sentence, what is a share of stock?
2. When you buy 10 shares of a company through your broker app two years after its IPO, who receives your money?
3. What is an index, and why can you not buy "one S&P 500" directly?
4. During regular hours, a stock's price suddenly starts climbing even though no one is officially "setting" prices. What is actually happening?
5. Your friend buys a stock at 10:00 AM planning to sell it by Friday, and another friend buys the same stock planning to hold it for ten years. Which one is trading, and which one is investing?

Answers: 1) One small piece of ownership in a company — shareholders are part-owners of the business. 2) The seller of those shares; after the IPO, trades happen between buyers and sellers, not with the company. 3) A scoreboard number tracking a group of stocks at once; it is a measurement, not a product, so you can only buy funds or products that track it. 4) More buyers want in than sellers want out, so buyers

keep offering higher prices to convince owners to sell, and the last traded price keeps rising. 5) The friend selling by Friday is trading (short horizon, betting on a price move); the friend holding ten years is investing (long horizon, betting on the company growing more valuable).

> **RULE**
> Every price move in the market comes down to buyers versus sellers. When you do not understand why a price moved, ask who was more eager — and you will usually find your answer.



AA-03

STOCKS
A–Z

Owning a piece of a company — shares, tickers, dividends, splits, and market cap.

Alpha Academy · Team Alpha Trading

Stocks A–Z: Owning a Piece of a Company

In the last chapter you learned that a **share** is a tiny piece of ownership in a company. This chapter zooms in on that one idea until you know it cold: what a share gives you, how to read a stock's name tag, how to tell whether a company is big or small, how you can get paid just for owning stock, and how a stock can split, report its grades, or even go to zero.

> **NOTE**
> This chapter is education only, not financial advice or a recommendation to buy any stock. Dollar ranges below are common conventions, not laws — treat them as approximate, and always check current details on any real company before risking money.

A Share Is an Ownership Slice

Imagine a bakery worth $1,000,000 total. The owners divide it into 100,000 equal pieces. Each piece — each **share** — is worth $10, because $1,000,000 ÷ 100,000 shares = $10 per share.

If you buy 100 shares for $1,000, you own 100 ÷ 100,000 = 0.1% of the bakery. You do not get to walk in and take the ovens — but you genuinely own a slice of everything it is: equipment, cash, future profits. If the bakery grows to be worth $2,000,000, your slice is worth $2,000. If it shrinks to $500,000, your slice is worth $500. That is the whole deal of owning stock, whether the "bakery" is a corner shop or Apple. Real companies just use bigger numbers — a giant might have **billions** of shares — but the math works exactly the same way.

Owning shares usually also comes with two rights:

- **Voting rights** — common shareholders vote on big company decisions, like who sits on the board of directors (the group that oversees management). One share usually equals one vote. Your 100 votes will not swing Apple's election, but the right is real.
- **A claim on profits** — if the company chooses to share profits with owners, you get your slice's worth. That payment is called a dividend, covered below.

Ticker Symbols: The Stock's Nickname

Every stock has a short code called a **ticker symbol** — usually 1 to 5 capital letters. It is the stock's nickname on the exchange, used because typing "Apple Inc." thousands of times a day would be madness.

Ticker	Company
AAPL	Apple
MSFT	Microsoft
AMZN	Amazon
NVDA	Nvidia
TSLA	Tesla

When you want to buy or research a stock, the ticker is what you type into your broker app. Be careful: tickers can look similar, and buying the wrong one is a real beginner error. Always double-check the company name next to the ticker before ordering.

Share Price Versus Company Value

Here is the most misunderstood idea for beginners: **the price of one share tells you almost nothing about how big the company is.** Company A trades at $500 per share; Company B at $20. Which is bigger? You cannot tell — you are missing how many shares exist. To size the whole company, you need slice price × number of slices. That whole-company value is called **market capitalization**, almost always shortened to **market cap**.

Market cap = share price × shares outstanding

Shares outstanding simply means the total number of shares that exist — all the slices, held by everyone.

Worked example:

- Company A: $500 per share × 2,000,000 shares outstanding = **$1,000,000,000** (one billion dollars) market cap.
- Company B: $20 per share × 500,000,000 shares outstanding = **$10,000,000,000** (ten billion dollars) market cap.

Company B, the "$20 stock," is **ten times bigger** than the "$500 stock." Market cap — not share price — is the number that tells you size.

Market Cap Sizes: Small, Mid, and Large

Traders sort companies into size buckets by market cap. The cutoffs drift over time, but the commonly used approximate ranges are:

Bucket	Approximate Market Cap	Plain-English Feel
Small-cap	About $300 million to $2 billion	Younger, smaller companies. More room to grow, more room to fall. Prices can swing hard.
Mid-cap	About $2 billion to $10 billion	Established, but still growing.
Large-cap	About $10 billion and up	The giants: slower, steadier, harder to move. The very biggest (over $200 billion) are sometimes called **mega-cap**.

> **TIP**
> When someone says "that's a small-cap," hear a risk hint: small companies can double — and collapse — far more easily than giants. Size quickly tells you how wild the ride might be.

Shares Outstanding and the Float

Two related numbers matter here:

- **Shares outstanding** — every share that exists, including shares held by founders, executives, and big institutions who rarely trade them.
- **Float** — the shares actually available for the public to trade day to day: shares outstanding **minus** shares locked up with insiders and major holders who are not selling.

Why does the float matter? Supply and demand again. With a tiny float — say 5 million shares — a wave of buying has few shares to chase, and the price can explode upward (and crash just as fast). A giant with billions of shares in its float needs an enormous wave to move the same way. Small float = touchy, jumpy stock. Remember that before you ever touch one.

Dividends: Getting Paid to Own

Some companies share profits directly with shareholders in cash. That payment is a **dividend** — a small thank-you check for owning the stock.

Concrete example: a company pays $0.50 per share, four times a year (payments spread through the year like this are called **quarterly** dividends). You own 200 shares, so each quarter you receive 200 × $0.50 = **$100** in cash — $400 over the year — without selling anything.

Key facts every beginner must know:

- **Dividends are never guaranteed.** A company can reduce or cancel its dividend at any time, and struggling companies do. Never count on dividend money you cannot afford to lose.
- **Not all companies pay them.** Young, fast-growing companies usually keep every dollar to grow and pay none. Big, mature companies are the typical payers.
- **The ex-dividend date matters.** To receive an upcoming dividend, you must own the stock **before** the **ex-dividend date** (shortened to **ex-date**), the cutoff day set by the exchange. Buy on or after the ex-date and the previous owner gets that payment, not you. Side effect: the share price often drops by roughly the dividend amount on the ex-date — the cash just left the company. A dividend is not free money from nowhere.
- **Dividends are taxable** in most cases, even if your broker automatically reinvests them into more shares through a **DRIP** (dividend reinvestment plan).

> **NOTE**
> The tax treatment of dividends depends on your situation and current law. This is educational information only, not tax advice — ask a tax professional about your own case.

Stock Splits and Reverse Splits

A **stock split** cuts each share into several smaller shares — same pizza, more slices, total value unchanged. Example: you own 10 shares at $400 = $4,000. In a **4-for-1 split** (every 1 share becomes 4), you now own 40 shares at about $100 each: 40 × $100 = $4,000. Same total. Companies split mainly to make the per-share price look more affordable.

A **reverse split** is the opposite: shares are combined. In a **1-for-10 reverse split**, your 100 shares at $0.50 (total $50) become 10 shares at $5.00 (total still $50). Companies do this because their price has fallen very low — exchanges generally expect stocks to stay above $1 — and a reverse split lifts the price on paper to avoid being kicked off. Often a sign of a company in trouble, not strength.

> **RULE**
> Splits and reverse splits change the slice count and the price per slice — never what your holding is worth at the moment they happen.

Earnings Reports: The Report Card

Four times a year, every public company must publish how its business actually did — money in, profit kept, and what it expects next. This is an **earnings report** — the company's quarterly report card.

Two words inside it matter most:

- **Revenue** — all the money the company took in from selling its products or services, before subtracting costs. Also called "sales" or "the top line."
- **Profit** — what is left after paying all costs. For the whole company it is called **net income**; divided by the number of shares, it is **earnings per share**, or **EPS**: profit ÷ shares outstanding.

Earnings days are famous for violent price moves. Analysts (professionals who study companies) publish what they *expect* revenue and EPS to be, and the stock reacts to the surprise: beat expectations and the price often jumps; miss them and it can fall hard — even if the company still made a profit, because the crowd expected more. Know the earnings dates of anything you own, and until you have experience, consider not holding trades through them.

Common Stock Versus Preferred Stock

Almost everything you will ever trade is **common stock**: the standard ownership slice, with voting rights, prices that swing freely, and dividends only if the company chooses to pay them.

There is also **preferred stock**, a quieter hybrid. Preferred shareholders usually get **fixed dividends** paid before common shareholders get anything, usually have **no voting rights**, and stand **ahead of common shareholders** if the company is shut down and its assets sold — but behind lenders, with often little left by then. Their prices swing much less, behaving partly like a stock, partly like a loan. Mostly bought by institutions and income-focused investors; as a beginner, common stock is your world — just know the other type exists.

IPOs: A Company's First Day for Sale

You met the IPO in the last chapter: an **initial public offering** is the first time a company's shares are sold to the public. Before it, the company is **private** — owned by founders and early investors, and you cannot buy it. After it, the company is **public**, and anyone with a brokerage account can trade it.

> **RISK**
> Brand-new IPO stocks are some of the wildest rides in the market: no trading history to study, excitement at its peak, prices that can soar on day one and sink for months. Many famous companies traded below their IPO price at some point in their first year. Hype is not a strategy.

Blue Chips Versus Penny Stocks

Two nicknames you will hear constantly:

- **Blue-chip stocks** — shares of large, old, financially strong companies with long records of surviving good times and bad (Johnson & Johnson and Procter & Gamble are classic examples). "Blue chip" comes from poker, where blue chips are the most valuable. They are the *relatively* steadier end of the stock world — steadier, not safe.
- **Penny stocks** — very cheap shares, officially defined by US regulators as stocks under $5, and in practice often under $1. They are usually tiny, little-known companies, many trading on loosely regulated **over-the-counter (OTC)** markets — trading done directly between parties, not on a central exchange — instead of the NYSE or Nasdaq.

> **RISK**
> Penny stocks are where beginners get hurt worst. Prices are easily manipulated because so few shares trade ("pump and dump" schemes exist precisely to lure beginners in), information is scarce and unreliable, spreads eat your money, and many of these companies are near failure. A stock at $0.30 is usually cheap for a reason. Treat penny stocks as dangerous territory — or skip them entirely.

How a Stock Goes to Zero — and Delisting

Yes, it happens: **a stock can go to zero, and you can lose every dollar you put in it.** If a company fails and cannot pay its debts, it may file for **bankruptcy**, the legal process for a company in that position. The line to get paid is strict: lenders and bondholders (people who lent the company money) first, then preferred shareholders, and common shareholders **dead last**. In most bankruptcies nothing is left by then, and the shares become worthless. Owning stock means owning the upside *and* the downside of a real business.

Delisting is a related event: an exchange removes a stock, usually because the company broke its rules — most commonly by letting its price stay below the $1 minimum too long or failing to file required reports. Delisted stocks typically move to the OTC markets, where they are harder to trade and often keep falling — not always the end, but almost never good news.

Your protection is boring but real: own companies you understand, never put money you need into a single stock, and make sure one company going to zero could never wipe you out. Position sizing gets its own chapter later.

Common Beginner Mistakes

- **Thinking a $3 stock is "cheaper" than a $300 stock.** Price per share says nothing by itself. Market cap tells you the real size.
- **Buying on or after the ex-dividend date and expecting the dividend.** Own before the ex-date, or that payment goes to the seller.
- **Counting on dividends like a paycheck.** They are never guaranteed and can be cut or cancelled anytime.
- **Getting excited about a split.** A 4-for-1 split does not make you richer — more slices, same pizza.
- **Chasing penny stocks and hot IPOs because they feel exciting.** Low price plus a tiny float means violent moves and manipulation.
- **Believing a real company "can't go to zero."** It can. Shareholders are last in line in bankruptcy and usually get nothing.

Chapter Summary

- A **share** is a slice of ownership: its value = company value ÷ shares, rising and falling with the business.
- Every stock has a **ticker symbol**, its short exchange nickname — verify it before ordering.
- **Market cap = share price × shares outstanding** is the true measure of company size; share price alone is nearly meaningless.
- Size buckets: small-cap (about $300M–$2B), mid-cap (about $2B–$10B), large-cap (about $10B+). Smaller usually means wilder.
- The **float** — shares actually available to trade — can be far smaller than shares outstanding; a small float makes prices jumpy.
- **Dividends** are optional cash payments, never guaranteed; own before the **ex-dividend date** to receive one.
- **Splits** and **reverse splits** change share count and price per share — not your total value.
- **Earnings reports** are quarterly report cards (revenue and EPS versus expectations) that often trigger the biggest price moves.
- **Common stock** is the standard trading vehicle; **preferred stock** pays fixed dividends first but usually has no vote. Stocks can be **delisted** — and can go to **zero** in bankruptcy, where shareholders are paid last.

Check Yourself

1. A company has a share price of $40 and 250 million shares outstanding. What is its market cap, and which size bucket does it fall into?
2. You own 20 shares at $250 each. The stock does a 5-for-1 split. How many shares do you own afterward, at roughly what price, and what is your total holding worth?
3. A stock's ex-dividend date is this Friday. If you buy the stock on Friday morning, do you receive the upcoming dividend? Why or why not?
4. What is the difference between shares outstanding and the float?
5. In a bankruptcy, why do common shareholders usually end up with nothing?

Answers: 1) $40 × 250,000,000 = $10 billion — right at the bottom edge of large-cap (about $10 billion and up). 2) 20 × 5 = 100 shares at roughly $250 ÷ 5 = $50 each; 100 × $50 = $5,000, exactly what you had before the split. 3) No — you must own before the ex-dividend date; buying on or after it means the seller gets that payment. 4) Shares outstanding is every share that exists; the float is only the shares available for public trading, excluding insider and major-holder shares not for sale. 5) The payment order is strict — lenders and bondholders first, then preferred shareholders, common shareholders last — and the money usually runs out before reaching them.

> **RULE**
> Never judge a stock by its price tag alone. Judge it by market cap, float, and what could go wrong — that is how owners think, and you are an owner.



AA-04

HOW TRADING ACTUALLY WORKS

Brokers, accounts, and every order type, explained in plain English.

Alpha Academy · Team Alpha Trading

How Trading Actually Works: Brokers, Accounts & Orders

People say "I bought some stock today" like it is just tapping a button. But behind that tap, a chain of people, computers, and rules moves your money safely to a stranger on the other side of the trade. This chapter pulls back the curtain: what a **broker** is, how the two main account types work, what happens after you press "buy," and how to use the main **order types** — the exact instructions you give when you trade.

> **NOTE**
> This chapter is education only — not financial advice, and not a recommendation for any broker or account. Always read your own broker's current rules, fees, and disclosures before you trade.

What Is a Broker?

A **broker** is a licensed company that gives you access to the stock market. You cannot walk up to an exchange and buy shares yourself — exchanges only deal with member firms. Your broker is your doorway in, like the agent who gives you access to house listings and makes the deal official, for stocks and **options** (contracts based on a stock's price — covered in the options chapters).

Your broker sends your orders where buyers and sellers meet, holds your money and investments safely separated from its own money, and keeps records of everything you own.

US brokers are regulated — watched over — by the **SEC** (Securities and Exchange Commission, the main federal market regulator) and **FINRA** (the Financial Industry Regulatory Authority, an industry watchdog). Customer assets are protected by **SIPC** insurance (Securities Investor Protection Corporation) up to $500,000, including up to $250,000 in cash, if the broker itself fails. Be clear: SIPC protects you if the *firm* collapses — not if your investments go down in value.

How to Pick a Broker

There is no single "best" broker — only the best fit for you:

- **What you can trade.** Some brokers offer only stocks and funds; others also offer options and **futures** (contracts based on the future price of things like oil or indexes).
- **Costs.** Many brokers charge $0 commission on stock trades today, but options and futures usually carry per-contract fees.
- **The platform.** Can you find your balance, positions, and the order screen without hunting?
- **Education and practice tools.** Good beginner brokers offer lessons and **paper trading** — a practice account with fake money, covered at the end of this chapter. Some open accounts at $0; others ask for a deposit.

The Two Main Account Types: Cash and Margin

Cash account

A **cash account** is the simple one. You trade only with money you deposited that has **settled** — finished moving through the banking system and become fully yours to use. Deposit $500 and you can buy up to $500 of stock. You can never owe the broker money or be charged interest. One quirk: money from a *sale* also needs time to settle before you can spend it again, and re-buying with unsettled money can trigger a warning called a **good faith violation**.

Margin account

A **margin account** lets you borrow money from your broker to buy more than your own cash allows. Borrowing to invest is called **buying on margin**, or using **leverage** — a little of your money controlling a bigger position.

Example: you have $1,000. In the US, the starting rule (called **Regulation T**, or Reg T) lets you borrow up to another $1,000, controlling $2,000 of stock. If it rises 10%, your position is worth $2,200 — a $200 gain on your $1,000, or 20%. But if it *falls* 10%, you lost $200 — 20% of your money — and you still owe the borrowed $1,000 plus **interest** (charged on the loan, like a credit card). If the fall gets bad enough, the broker issues a **margin call** — a demand to deposit more money right away — and can even sell your investments without asking, to protect its loan.

Margin accounts also unlock **short selling** (betting a stock will fall) and many options strategies — plus an extra rule day traders must know:

> **NOTE**
> The classic **Pattern Day Trader (PDT)** rule says four or more "day trades" (buying and selling the same stock the same day) within five business days in a margin account requires at least $25,000 in the account. US regulators have been replacing it with new intraday-margin standards, and brokers are transitioning at different speeds — check your broker's current rule.

> **RISK**
> Margin magnifies everything — gains, losses, and interest costs. Learn in a cash account first.

How You Actually Open an Account

The process is similar at almost every US broker. You **apply online**, giving your name, address, date of birth, Social Security number, and employment info — not nosiness: federal law (called **Know Your Customer** rules) requires brokers to verify who you are, partly to prevent fraud. You **choose cash or margin**; margin requires a separate agreement accepting the borrowing risks in writing. You **answer risk questions** about income, net worth, and experience, which decide your approvals — options trading, for example, comes in levels. Then you **fund the account**, usually by bank transfer, which can take a few business days to settle.

How a Trade Travels: From Your Tap to the Exchange

Say you decide to buy 10 shares of a fictional company, **Acme Corp**, ticker **ACME**. Here is its journey:

- **Step 1 — You place the order.** In the app you pick the stock, the share count, and the order type (covered below), and tap "buy."
- **Step 2 — Your broker checks and routes it.** Its computers confirm you have the money, then send the order to a **venue** — a place where trades happen, such as a stock **exchange** (a regulated marketplace like the New York Stock Exchange or Nasdaq).
- **Step 3 — Your order meets a seller.** Another investor wants to sell 10 shares of **ACME**. Every buy needs a sell; the venue's computers match you in a fraction of a second, and the trade prints publicly — that is why prices update all day on financial websites.

- **Step 4 — The trade settles.** Money and shares officially change hands. For US stocks this takes **one business day**, called **T+1** (trade date plus one day) — the standard since May 2024. You *see* the shares right away, but the final transfer completes on T+1.

The Three Prices on Every Stock: Bid, Ask, and Last

Every stock quote shows three prices. Beginners often notice only one — and it costs them.

- **Bid price** — the highest price a buyer is offering right now. Sell immediately, and this is roughly what you get.
- **Ask price** (also called the offer) — the lowest price a seller is asking right now. Buy immediately, and this is roughly what you pay.
- **Last price** — the price of the most recent completed trade. This is the big number on TV and in apps. It is history, not a promise of your price.

The gap between bid and ask is the **spread**. Example: **ACME** shows a bid of $49.98 and an ask of $50.02. The spread is $0.04. Buy at the ask and instantly sell at the bid, and you lose 4 cents a share before the stock even moves. Popular stocks have spreads of a penny or two; quiet, rarely traded stocks can have wide spreads — a hidden cost.

> **RULE**
> Your fill price comes from the bid and ask at the moment your order fills — not the "last price" on a chart. Always glance at the bid and ask before you trade.

Buying Power: How Much You Can Actually Trade

Your **buying power** is the amount your broker lets you commit to trades right now. In a **cash account** it is basically your settled cash: $500 settled means $500 of buying power. In a **margin account** it includes borrowable money — $1,000 of cash might show $2,000 of buying power under Reg T. Buying power drops the moment you place an order, because the broker reserves the money.

Order Types: The Instructions You Give Your Broker

An **order** is not just "buy." It is a set of instructions: what, how much, and *under what conditions*.

Order Type	What It Means in Plain Words	When Traders Use It
Market order	Buy or sell right now at the best available price, whatever it is	When speed matters more than the exact price
Limit order	Buy or sell only at your chosen price or better — never worse	When you refuse to overpay or undersell
Stop order (stop-loss)	Once the price touches your trigger, it becomes a market order	To limit a loss automatically if a trade goes wrong
Stop-limit order	Once the price touches your trigger, it becomes a *limit* order at your chosen price	To control the exit price — but it may not fill at all

Order Type	What It Means in Plain Words	When Traders Use It
Trailing stop	A stop that follows the price by a set amount or percentage	To lock in gains while giving a trade room to run
Day order	Cancels at the end of today's session if it does not fill	The default; for prices that only make sense today
GTC order (Good 'Til Canceled)	Stays active until it fills or you cancel it (brokers cap this, often ~90 days — check yours)	When you will wait days or weeks for your price

Limit order — "my price or nothing"

A **limit order** sets a ceiling for buys and a floor for sells. Example: **ACME** trades at $50.10, but you only want it at $49.50. Place a limit buy at $49.50: you buy only if the price falls there or lower — and maybe never, if it never gets there. Certainty about price; no certainty about filling. For beginners, this is the safest default.

Stop order — "get me out if I'm wrong"

A **stop order** sleeps until the stock trades at your **stop price**, then wakes up as a market order. Its classic use is the **stop-loss**: buy at $50, place a stop-loss at $46, and if the stock falls to $46 your shares sell at the next available price — maybe $46, maybe lower in a fast drop. It limits your loss; it does not promise an exact exit price.

Stop-limit order — control, with a catch

A **stop-limit order** has two prices: the stop triggers it, the limit controls it. Stop at $46, limit at $45.50: once the stock hits $46, sell — but only at $45.50 or better. The catch: if the stock crashes straight through $45.50 — called **gapping**, jumping past a price without trading there, often overnight on news — it may never fill.

One more worth knowing: a **trailing stop** moves with the price. Set one $3 below the price on a $50 stock — the stop sits at $47 — and if the stock climbs to $58, the stop climbs to $55. It never moves backward, and it can be set as a percentage.

Commissions and Fees: The Small Print That Isn't Small

Many US brokers advertise **$0 commissions** on online stock and ETF trades. That is real — but trading is not free. **Options** usually cost a per-contract fee (commonly around $0.50–$1.00 per contract). **Futures** carry per-contract commissions plus exchange fees. **Margin interest** is charged daily on borrowed money at rates that vary widely, and tiny **regulatory fees** are passed through on trades.

> **NOTE**
> Fees change — always check your own broker's current fee schedule.

Fractional Shares: Start Small, for Real

A **fractional share** is a slice of one share. Some famous companies trade at several hundred dollars a share. Many brokers now let you invest by dollar amount instead: put in $25 and own $25 worth of the stock, even if one full share costs $500 — you own 0.05 shares. If it pays a **dividend** (a cash payment a company sends its shareholders), you get your proportional slice. Not every broker offers them, so check yours.

Paper Trading: Practice With the Training Wheels On

Paper trading (also called simulated trading) is a full practice account: real live prices, fake money. You place real order types, watch fills, and track wins and losses — and risk nothing. Use it to practice each order type above until it is boring, and make your first mistakes for free.

> **TIP**
> Paper trading has one flaw — it does not *feel* real. Nobody cries over fake money. Treat practice results as proof you understand the mechanics, not proof you will stay calm with real cash at risk.

Common Beginner Mistakes

- **Using market orders on everything.** On a quiet stock with a wide spread, a market order can fill at a terrible price. Use limit orders as your default.
- **Opening a margin account on day one "for the features."** Borrowing and interest are not features a beginner needs. Learn in cash first.
- **Placing a GTC order and forgetting it.** It can fill weeks later, when you no longer want the trade.
- **Skipping paper trading.** Refusing free lessons and paying for them with real losses is the most expensive habit in trading.

Chapter Summary

- A **broker** is your licensed doorway to the market — regulated by the SEC and FINRA, with SIPC protection if the firm fails.
- A **cash account** trades only settled money: no debt, no interest. A **margin account** lets you borrow (leverage), magnifying gains *and* losses, charging interest, and risking a margin call.
- A trade travels: you → broker → exchange or venue → matched seller, then settles **T+1**.
- Every quote has a **bid**, an **ask**, and a **last** price; the gap between bid and ask is the **spread** — a real cost.
- **Buying power** is what you can commit: settled cash in cash accounts; cash plus borrowable funds in margin.
- Order types: **market** (now, any price), **limit** (my price or nothing), **stop** (trigger, then market), **stop-limit** (trigger, then limit), **trailing stop**, **day** vs **GTC**.
- **Fractional shares** let you invest by dollar amount; **paper trading** lets you practice with fake money first.

Check Yourself

1. What does a broker do for you, and who regulates US brokers?

2. You have $1,000 in a margin account and buy $2,000 of stock that falls 10%. Roughly how much have you lost, and what do you still owe?
3. A stock shows a bid of $30.00 and an ask of $30.06. What is the spread, and which price do you roughly pay if you buy immediately?
4. You bought at $80 and want automatic protection if the price falls to $72, accepting whatever price the market gives then. Which order type fits, and what does it become when triggered?
5. What does T+1 mean, and when did it become the US stock standard?

Answers: 1) It routes your orders to exchanges, holds your money and investments, and keeps your records; US brokers are regulated by the SEC and FINRA, with SIPC protection if the firm fails. 2) About $200 — 20% of your $1,000 — and you still owe the $1,000 loan plus interest. 3) $0.06; you pay roughly the ask, $30.06. 4) A stop order (stop-loss) at $72; at $72 it becomes a market order and fills at the next available price. 5) The trade settles one business day after the trade date; US standard since May 2024.

> **RULE**
> Never place a trade you could not explain in one sentence: what you are buying, which order type you used, and exactly how you will get out. If you can't say it, don't send it.



AA-05

READING CHARTS & CANDLESTICKS

What a chart shows and how to read any candle, step by step.

Alpha Academy · Team Alpha Trading

Reading Charts & Candlesticks

Every trader you have ever seen on TV is staring at a chart. This chapter teaches you how to read one — slowly, from zero. By the end, you will be able to open any stock chart, understand what every shape and bar on it means, and read it step by step with confidence.

No math beyond basic arithmetic. No experience needed. Just prices, pictures, and patience.

> **NOTE**
> A chart shows you the past — what price already did. It cannot show you the future. Reading charts means reading a story that already happened, so you can make calmer, better-informed guesses about what might happen next. It is a skill, not a crystal ball.

Why Traders Use Charts

A **stock price** is simply the last price someone paid for one share. That price changes constantly — hundreds or thousands of times a day for a popular stock. Nobody can follow a raw stream of numbers like that. So we draw a **chart**: a picture of price over time, like a heart monitor for a stock — not the patient itself, but a clear picture of how it is doing.

Traders use charts for three simple reasons:

- **To see the trend.** Is this stock generally climbing, falling, or drifting sideways? A chart answers that in two seconds. A list of numbers never could.
- **To plan entries and exits.** A chart shows where price has turned around before. Those levels help you decide where a trade makes sense — and where to get out if it goes wrong.
- **To stay calm.** A scary red day looks less scary when you can see it is a small dip inside a long, healthy climb. The chart gives context instead of panic.

The Three Basic Chart Types

There are three common ways to draw price.

Line Chart

A **line chart** connects one price point to the next with a single line — usually the **closing price** (the last price of each period, explained below). It is the simplest view: great for the overall shape of a move, useless for detail. News websites mostly show line charts.

Bar Chart

A **bar chart** draws one small vertical bar for each period. Each bar has a top (the highest price of the period), a bottom (the lowest), a tick on the left (the **opening price** — the first price of the period), and a tick on the right (the closing price). Detailed, but harder to read quickly.

Candlestick Chart

A **candlestick chart** shows the exact same four prices as a bar chart — open, high, low, close — but draws them as a chunky colored shape that looks like a candle. The method comes from Japanese rice traders, centuries ago. Nearly all traders today use candlesticks because they are the easiest to read at a glance, so the rest of this chapter focuses on candles.

Chart type	Shows	Best for
Line	Closing prices connected	Seeing the big picture fast
Bar	Open, high, low, close as thin bars	Precise detail, old-school style
Candlestick	Open, high, low, close as colored shapes	What most traders use daily

Anatomy of One Candle

One candle covers one **period** of time — one minute, one hour, one day, whatever you choose. During that period, four prices matter:

- **Open** — the first price traded in the period.
- **High** — the highest price traded in the period.
- **Low** — the lowest price traded in the period.
- **Close** — the last price traded in the period.

Traders nickname these four numbers **OHLC**, for Open, High, Low, Close.

The candle itself has two parts:

- **The body** — the thick middle block. It stretches from the open to the close. A long body means price moved a lot during the period. A tiny body means it barely moved.
- **The wicks** — the thin lines sticking out of the top and bottom of the body. The top wick reaches up to the high. The bottom wick reaches down to the low. Wicks are also called **shadows**.

A wick tells a story: price went there, but could not stay there. A long top wick means buyers pushed price up, then sellers dragged it back down before the period ended.

A Worked Example With Real Numbers

Say you are watching the stock of a fictional company, ticker **XYZ**, on a **daily chart** — each candle is one full day. Today **XYZ** trades like this:

- It **opens** at $50.00 (first trade of the day).
- Buyers push it up to a **high** of $53.00 by midday.
- Sellers knock it down to a **low** of $49.00 in the afternoon.
- It recovers a bit and **closes** at $52.00 (last trade of the day).

That day's candle would show a body from $50 to $52 ($2), a top wick from $52 up to $53 ($1), and a bottom wick from $50 down to $49 ($1).

Read it as a story: buyers won the day (closed at $52, above the open), but the fight ranged $4 wide — from $49 to $53. That is the whole skill. Every candle is one short story like that, and a chart is hundreds of them in a row.

Green Candles and Red Candles

The color of a candle answers one question: did price close higher or lower than it opened?

- **Green candle** — close is **above** the open. Buyers won the period. In our example, XYZ opened at $50 and closed at $52, so that candle is green.
- **Red candle** — close is **below** the open. Sellers won the period. If XYZ had opened at $52 and closed at $50, that candle would be red, even if the prices it visited were identical.

> **TIP**
> Some platforms use white and black, or blue and orange, instead of green and red. The rule never changes: color only compares the close to the open of the same candle. You can change the colors in your chart settings if green and red are hard to tell apart.

One confusion to kill early: a red candle does **not** always mean the stock is down compared to yesterday. It only means price fell from that candle's open to its close. A stock can open much higher than yesterday's close, drift down a little, print a red candle, and still be up nicely on the day.

Timeframes: How Much Time Is One Candle?

The **timeframe** is how much time each candle covers. You choose it. The same stock looks completely different on different timeframes — the way the same road looks different from an airplane and from the driver's seat.

Timeframe	One candle =	Typically used by
1-minute	1 minute	Day traders scalping fast moves
5-minute / 15-minute	5 or 15 minutes	Day traders planning intraday trades
1-hour	1 hour	Day traders and short-term swing traders
Daily	1 full trading day	Swing traders and most investors
Weekly	1 full week	Investors and position traders
Monthly	1 full month	Long-term investors checking the big picture

A **day trader** buys and sells within the same day and lives on the small timeframes. A **swing trader** holds for days to weeks and mostly uses the daily chart. A **long-term investor** sticks to weekly and monthly charts.

> **RULE**
> Match the timeframe to your plan. If you bought a stock to hold for six months, a scary 5-minute candle should mean almost nothing to you. Staring at too-small timeframes shakes beginners out of good trades.

Smart traders check two timeframes: the bigger one for overall direction (the "weather"), the smaller one for timing. As a beginner, start with just the daily chart until reading it feels boring. Boring means you are getting it.

Volume: The Bars Under the Chart

Under almost every chart you will see a row of vertical bars along the bottom. That is **volume** — the number of shares that changed hands during each period. A daily candle with volume of 2,000,000 means two million shares were bought and sold that day. Volume bars are usually colored to match their candle.

Volume answers the question: **how much conviction was behind that move?**

- Price jumps 5% on huge volume — many people were involved. The move has weight behind it.
- Price jumps 5% on tiny volume — very few people participated. The move is fragile and may not last.

Think of volume like applause. A standing ovation means the crowd really meant it. Three people politely clapping does not.

> **TIP**
> Compare today's volume to the stock's **average volume** (usually shown on the chart or quote page). Double the average means something real happened — earnings news, a big announcement, or institutions moving in or out.

Trend vs. Sideways: The Two Basic Shapes

At the simplest level, price does only three things: goes up, goes down, or goes sideways.

- **Uptrend** — a pattern of higher peaks and higher valleys, like a staircase going up. Each push up goes higher than the last, and each pullback stops higher than the last.
- **Downtrend** — the staircase flipped: lower peaks and lower valleys. Each rally is weaker, and each dip goes deeper.
- **Sideways (a range)** — price bounces between a rough ceiling and a rough floor, like a ping-pong ball in a box.

Chapter 8 goes deeper into trends and patterns. For now, train your eye on one honest question: **staircase up, staircase down, or ping-pong box?** If you cannot tell, zoom out — a chart that looks like chaos on a 5-minute timeframe often shows a clean trend on the daily. And "I can't tell" is a perfectly good reading. Forcing a trend onto a messy chart is how beginners talk themselves into bad trades.

Four Candle Signals Worth Knowing

Certain candle shapes appear so often that traders gave them names. Each one is a **hint** about who is winning the fight between buyers and sellers.

Doji

A **doji** forms when the open and close are nearly the same price, so the body is almost invisible — the candle looks like a plus sign. It means a tie: buyers and sellers fought all period and ended where they started. After a long run up or down, a doji can hint that the run is tiring out.

Hammer

A **hammer** has a small body near the top and a long bottom wick — at least twice as long as the body. It appears after a fall. The story: sellers pushed price way down, but buyers stormed back and closed it near the top. It looks like a hammer nailing down a bottom, hence the name.

Shooting Star

A **shooting star** is the hammer flipped upside down: small body near the bottom, long top wick. It appears after a rise. Buyers pushed price way up, but sellers dragged it back down by the close.

Engulfing Candle

An **engulfing candle** is a candle whose body completely covers (engulfs) the body of the candle before it. A **bullish engulfing** candle — a green candle swallowing the red one before it — means buyers took over completely. A **bearish engulfing** candle is the reverse: sellers took over. **Bullish** means acting in a way that profits if price rises; **bearish** means the opposite.

> **NOTE**
> These are hints, not guarantees. A hammer does not promise a reversal — it suggests one might be starting, especially if the next candle confirms it by closing higher. Anyone who tells you a candle pattern "always works" is selling you something.

How to Read Any Chart in 5 Steps

When you open a chart, do not just stare at it. Walk this checklist, in order, every time:

1. **Name what you are looking at.** Ticker, timeframe, and how much history is on screen. A 5-day view and a 5-year view of the same stock tell opposite stories.
2. **Check the big shape.** Staircase up, staircase down, or ping-pong box? Say it out loud. If you cannot tell, zoom out.
3. **Find the recent turning points.** Where did price last stop and reverse at the top? At the bottom? Those rough levels matter — Chapter 8 calls them support and resistance.
4. **Read the last few candles.** Big bodies or small? Long wicks? Any of the four signals above? What story did the last three to five candles tell together?
5. **Check volume.** Did the recent moves happen on heavy volume (conviction) or light volume (fragile)? Then stop and think before acting.

Common Beginner Mistakes

- **Reading one candle like it is the whole story.** One candle is one period. Read it in the context of the trend around it.
- **Using a timeframe that does not match the plan.** Checking a 1-minute chart every thirty seconds on a stock you bought for the year is self-torture, not analysis.
- **Ignoring volume.** A move on tiny volume and a move on massive volume are not the same event.
- **Treating candle signals as guarantees.** Hammers fail. Dojis fail. They shift the odds slightly; they never remove risk.
- **Zooming in until the chart agrees with you.** If you have to hunt through six timeframes to find one that supports your idea, the chart is telling you something.

Chapter Summary

- A chart is a picture of price over time — the heart monitor of a stock.
- Line charts connect closing prices; bar and candlestick charts both show open, high, low, and close.
- One candle has a body (open to close) and wicks (out to the high and low). Green means the close beat the open; red means it didn't.
- Timeframe is how much time one candle covers. Match it to your plan: minutes for day traders, days for swing traders, weeks and months for investors.
- Volume counts shares traded and shows how much conviction a move has.
- Price does three basic things: trends up (higher peaks and valleys), trends down (lower peaks and valleys), or moves sideways in a range.
- Doji, hammer, shooting star, and engulfing candles hint at the buyer-seller balance — hints, never guarantees.
- Read every chart the same way: name it, find the shape, find the turning points, read the last candles, check volume.

Check Yourself

1. A candle opens at $30, reaches a high of $33, a low of $29, and closes at $31. What are the body and the two wicks, and is the candle green or red?
2. What is the only thing a red candle actually tells you?
3. You bought a stock planning to hold it for a year. Which timeframes matter most to you, and which one should you mostly ignore?
4. Two stocks both rise 4% today. Stock A's volume is triple its average; Stock B's volume is half its average. Which move has more conviction behind it, and why?
5. A hammer candle appears. What story does its shape tell, and why should you not buy on it blindly?

Answers: 1) The body runs from $30 to $31 ($1). The top wick runs from $31 to $33 ($2); the bottom wick from $30 down to $29 ($1). It is green — the close ($31) is above the open ($30). 2) Only that price closed below where it opened for that candle's period — nothing about yesterday or the day overall. 3) The daily, weekly, and monthly charts match a one-year plan; 1-minute and 5-minute charts are noise for you. 4) Stock A. Heavy volume means many participants drove the move; Stock B's move had thin participation and is more fragile. 5) Sellers pushed price far down, but buyers fought back and closed it near the top — a hint a fall may be tiring. It is only a hint; hammers fail regularly, so traders wait for confirmation and always manage risk.

> **RULE**
> Read the chart in the same five steps, in the same order, every time. A routine you trust beats a feeling you don't — especially when money is on the line.



AA-06

THE LANGUAGE OF THE MARKET

The core vocabulary traders use every day — defined for humans.

Alpha Academy · Team Alpha Trading

The Language of the Market

Traders have their own slang, and at first it sounds like a foreign language. Someone says "I'm long, the tape looks strong, but watch that resistance level" — and a beginner hears nothing. Here is the good news: the core vocabulary is small. Learn the few dozen words in this chapter and you will understand most of what traders, news anchors, and trading apps are actually saying.

We will go slowly. Every term gets a plain definition, then a tiny example so you can hear it used the way traders really use it. By the end, you will be able to read a typical market sentence and translate it into plain English.

> **NOTE**
> Words do not make anyone money — understanding them just keeps you from being confused while you learn. Treat this chapter like a phrasebook you will keep coming back to.

Bulls, Bears, and the Mood of the Market

- **Bull / bullish.** A **bull** is someone who believes prices will go **up**. **Bullish** means feeling positive about a price rising. The image is a bull thrusting its horns upward. *Example: "I'm bullish on this stock — I think it goes higher."*
- **Bear / bearish.** A **bear** believes prices will go **down**. **Bearish** means feeling negative. The image is a bear swiping its paws downward. *Example: "He turned bearish after the bad sales report."*
- **Bull market.** A long period when prices in general are rising — commonly described as a rise of 20% or more from recent lows. *Example: "Stocks were in a bull market for years after 2020's bottom."*
- **Bear market.** The opposite: a long decline, commonly described as a fall of 20% or more from recent highs. *Example: "In a bear market, even good companies get cheaper."*

> **NOTE**
> Those 20% lines are conventions — labels journalists and analysts agree on — not laws of nature. A market does not change its behavior the day it crosses 19% to 20%.

- **Green day / red day.** On charts and apps, **green** means the price went up and **red** means it went down. A "green day" is a day your stock (or the whole market) rose. *Example: "Finally a green day — my account is up 2%."*
- **Rally.** A strong move upward over hours, days, or weeks. *Example: "After the good jobs report, stocks rallied all afternoon."*
- **Pullback.** A small, temporary dip during an overall uptrend — prices rising overall, taking a short step back. Traders often see pullbacks as normal breathing, not danger. *Example: "The stock is up this month despite Tuesday's pullback."*
- **Correction.** A drop of about 10% or more from a recent high — bigger than a pullback, smaller than a bear market. Also a convention, not an exact law. *Example: "Analysts called the 12% slide a healthy correction."*
- **Crash.** A sudden, violent drop — think double-digit percentage falls in days, with panic in the air. Crashes are rare, fast, and emotional. *Example: "In the 2020 crash, the market fell about a third in a month."*

A quick ladder to remember: a **pullback** is a small step back, a **correction** is roughly 10% down, a **bear market** is roughly 20% down, and a **crash** is a bear-sized move arriving all at once.

Your Position: Long, Short, In and Out

- **Position.** What you currently own or owe in a trade — your stake. If you buy 50 shares, your position is 50 shares. *Example: "My position is small while I'm learning."*
- **Long.** You are **long** when you own something and profit if its price rises. Buying a stock the normal way puts you long. *Example: "I'm long 100 shares of Acme at $50 — I need it above $50 to make money."*
- **Short.** You are **short** when you profit if the price **falls**. Shorting means selling something you borrowed, planning to buy it back cheaper later. It is an advanced move with serious risk, covered in a later chapter. *Example: "She shorted the stock at $80, hoping to buy it back at $70."*
- **Entry.** The price (and moment) where you start a trade. *Example: "My entry was $50.10, right after the open."*
- **Exit.** The price where you end the trade — hopefully planned before you entered. *Example: "His exit was $54, where he took his profit."*

Every trade is just: choose a **position**, mark your **entry**, and eventually take your **exit**. Everything else in trading is deciding those three things well.

The Scoreboard Words: Volume, Liquidity, Volatility

- **Volume.** How many shares changed hands in a period — the market's activity meter. High volume means lots of people trading; low volume means a quiet market. *Example: "Ten million shares traded today — huge volume."*
- **Liquidity.** How easily you can buy or sell something quickly at a fair price. Cash is perfectly liquid; a famous stock is highly liquid because buyers are always there. An illiquid (hard-to-trade) stock can trap you. *Example: "That tiny stock has no liquidity — when I tried to sell, nobody was buying."*
- **Volatility.** How much and how fast a price swings. A calm stock might move 0.5% a day; a volatile one can jump 8% before lunch. High volatility means bigger possible gains *and* bigger possible losses. *Example: "Earnings week is always volatile for this stock."*
- **Spread.** From the last chapter: the gap between the **bid** (what buyers offer) and the **ask** (what sellers want). A tight spread means cheap, easy trading; a wide spread is a hidden cost. *Example: "The spread was only a penny, so getting in and out was cheap."*
- **Level 2.** A screen showing the line of buyers and sellers waiting at different prices — not just the best bid and ask, but the whole queue behind them. *Example: "Level 2 showed a huge wall of sellers at $60."*
- **The tape.** The live stream of trades as they happen — every price and size, scrolling by. "Reading the tape" means watching that flow to sense who is winning, buyers or sellers. The name is a leftover from the paper ticker tapes of a century ago. *Example: "The tape stayed green all morning — buyers kept stepping in."*

The Trading Day: Open, Close, and Beyond

- **The open.** The moment regular trading starts — 9:30 AM Eastern Time for US stock exchanges. The first minutes are often wild, because a night's worth of news hits at once. *Example: "I never trade the first five minutes after the open — too chaotic."*

- **The close.** Regular trading ends at 4:00 PM Eastern. The **closing price** is the day's final price, the one headlines use. *Example: "It closed at $52, up a dollar on the day."*
- **Pre-market.** Trading before the open, starting as early as 4:00 AM Eastern on many platforms. Volume is thin, prices jump around, and spreads are wide. *Example: "The stock jumped 5% in pre-market on the earnings news."*
- **After hours.** Trading after the close, into the evening. Same warnings as pre-market: thin, jumpy, wide spreads. *Example: "She sold in after hours instead of waiting for tomorrow."*

> **TIP**
> As a beginner, trade during regular hours (9:30 AM–4:00 PM Eastern). Pre-market and after-hours moves often reverse by the next open, and their wide spreads quietly tax every trade.

Words for Price Levels: Support and Resistance

- **Support.** A price level where a falling stock tends to stop and bounce, because buyers step in there. Picture a floor under the price. *Example: "It bounced off $40 support three times this year."*
- **Resistance.** The opposite — a level where a rising stock tends to stall or turn back, because sellers step in. Picture a ceiling over the price. *Example: "Every rally this month has died at $60 resistance."*

Support and resistance get a full chapter later in this course. For now, just hear them correctly: floors below, ceilings above, and prices often reacting when they arrive at either one.

How Traders Judge Themselves

- **Risk/reward.** The comparison between what you could lose and what you could gain on a trade. If you risk $100 to make $300, your risk/reward is 1 to 3. *Example: "I only take trades where the reward is at least twice the risk."*
- **Win rate.** The percentage of your trades that make money. Winning 6 of 10 trades is a 60% win rate. *Example: "Her win rate is only 40%, but her winners are much bigger than her losers — so she still profits."* That example matters: win rate alone does not decide success.
- **Drawdown.** How far your account has fallen from its highest point. If your account peaked at $10,000 and is now $8,500, you are in a 15% drawdown. Drawdowns are the pain every trader must survive. *Example: "He stopped trading for a week after a 10% drawdown to clear his head."*
- **Catalyst.** An event that can move a price — an earnings report, a new product, a court ruling, an interest-rate decision. Traders watch calendars for catalysts the way sailors watch weather reports. *Example: "Earnings next Tuesday are the catalyst everyone is waiting for."*

Common Beginner Mistakes

- **Mixing up long and short.** "Long" is not about time — it means you profit when the price rises. Saying it wrong leads to placing the wrong trade entirely.
- **Thinking a correction or bear market is "the end."** These are normal, recurring weather in markets. Every historical crash has eventually been followed by recovery, though no single stock is guaranteed one.
- **Believing volatility is purely bad.** Volatility is movement. It creates the opportunities traders want — it just punishes the unprepared harder.

- **Chasing pre-market moves.** A stock up 8% before the open on thin volume often gives it all back by 10 AM. Beginners buy the excitement; the spread takes its cut either way.
- **Judging yourself only by win rate.** A trader can win 70% of trades and still lose money if the 30% of losses are huge. Risk/reward and drawdown tell the fuller story.
- **Using words you can't define.** If you cannot explain a term in this chapter in your own words, do not trade on a sentence that contains it.

Chapter Summary

- **Bullish** means expecting prices up; **bearish** means expecting them down. A **bull market** is a long rise (about +20% by convention); a **bear market** is a long fall (about −20%).
- Moves have sizes: a **pullback** is a small dip, a **correction** is about 10% down, and a **crash** is a sudden, violent fall.
- Your **position** is your stake; being **long** profits from rises, being **short** profits from falls; every trade has an **entry** and an **exit**.
- **Volume** counts shares traded; **liquidity** is how easily you can trade; **volatility** is how wildly prices swing; the **spread** is the bid–ask gap; **Level 2** shows the queue of buyers and sellers; **the tape** is the live stream of trades.
- Regular US hours are 9:30 AM–4:00 PM Eastern; **pre-market** and **after hours** are thinner and jumpier.
- **Support** is a floor under price; **resistance** is a ceiling above it.
- Judge trading with **risk/reward**, **win rate**, and **drawdown** together — and watch for **catalysts**, the events that move prices.

Check Yourself

1. A friend says, "I'm bearish here." What does she expect prices to do?
2. A stock rises for months, dips 3% for two days, then keeps rising. What is that dip usually called?
3. You buy 100 shares at $25. Are you long or short, what is your position, and what was your entry?
4. Why is trading at 7:00 AM usually riskier for a beginner than trading at 11:00 AM?
5. Your account peaked at $5,000 and is now $4,500. What are you experiencing, and how big is it?

Answers: 1) She expects prices to fall — bearish means negative on price. 2) A pullback — a small, temporary dip inside an overall uptrend. 3) You are long 100 shares; your position is those 100 shares; your entry is $25. 4) 7:00 AM is pre-market: thin volume, jumpy prices, and wide spreads, while 11:00 AM is regular hours with deep liquidity. 5) A drawdown — your account is down 10% from its peak ($500 ÷ $5,000).

> **RULE**
> Never use a market word you cannot define in one plain sentence. If you can't say it simply, you don't know it yet — and the market charges tuition for lessons learned live.



AA-07

TECHNICAL ANALYSIS A–Z

Moving averages, VWAP, RSI, MACD — the chart toolkit, honestly explained.

Alpha Academy · Team Alpha Trading

Technical Analysis A–Z: Tools That Read the Chart

Picture a chalkboard at a farmers market. Every time apples change hands, someone writes the new price on the board. Draw those prices as a line across a page, and you have a **chart** — a picture of price over time. **Technical analysis** is the skill of reading that picture to understand what buyers and sellers have been doing.

This chapter teaches the main chart-reading tools one at a time, in plain words, assuming you know nothing about markets yet. By the end you will be able to open almost any chart, find the trend (the general direction price has been moving), and use a few tools without getting lost. Start with the most important lesson: these tools describe the past and present. They do not see the future.

> **NOTE**
> Every tool in this chapter describes probability, not certainty — how likely something seems, based on what has happened before. Nothing predicts the future. Treat every tool like a weather report, not a crystal ball.

What Technical Analysis Is — and Is Not

Technical analysis rests on one idea: price already reflects what the crowd knows and feels — their information, hope, and fear get baked into it. So instead of only asking "is this a good company?", the chart reader asks "what is the crowd actually doing right now?"

The other approach is **fundamental analysis**: studying the business itself — sales, profits, debts — to judge what it is worth. Many traders use both. Neither makes you right.

A chart is built from **candlesticks**. A candlestick is one small shape summing up one slice of time — five minutes, one day, whatever you choose. It shows four prices: open, high, low, and close — where it started, its extremes, and where it ended. Green means it closed higher than it opened; red means lower.

Tools calculated from candles are called **indicators** — helper lines or numbers computed from price, and sometimes from volume (defined below). Your software does the math; you only interpret it. One warning: indicators are built from past prices, so they react after price has moved. Traders call this **lag** — a lagging tool can confirm a move that already started, never warn you before it begins.

Trend Lines and Channels: Start With Price Itself

Before any indicator, learn to read plain price. First question on any chart: which way is the **trend**, the general direction price has been traveling?

- **Uptrend**: higher highs and higher lows — a staircase going up, with small steps down in between.
- **Downtrend**: lower highs and lower lows — a staircase going down.
- **Sideways** (also called a range): price bounces between the same top and bottom, going nowhere overall.

A **trend line** is a straight line connecting the low points of an uptrend — underneath price, like a ramp it keeps bouncing off — or the high points of a downtrend, above price like a ceiling. Connect at least two obvious peaks or valleys (called swing points). The more times price touches the line and bounces, the more traders are watching it.

Example: a stock rises from $40 to $44 over two weeks, dipping first to $41.50, then to $42.50 — rising dips, meaning higher lows. Draw a line under them: an uptrend line. While daily prices keep closing above it, the staircase is intact; a firm close below it means the trend deserves a second look. Add a second line parallel to the first, on the other side of price, and you have a **channel** — a river between two banks, where price often slows or turns near the edges.

Moving Averages: The Trend, Smoothed Out

Price jumps around. A **moving average** smooths the jumps into one calm line: add up the closing prices of the last, say, 20 days and divide by 20. Tomorrow, drop the oldest day, add the new one, average again — the line "moves." Price above the line means recent prices are stronger than their recent average; below, weaker.

There are two common kinds. The **SMA** (Simple Moving Average) counts every day in the window the same. The **EMA** (Exponential Moving Average) counts recent days more than old days, so it hugs price more closely and reacts faster. The trade-off: faster means earlier signals and more false alarms; slower means later signals and fewer false alarms. Beginners usually start with the SMA.

The number is the **period** — how many candles it looks back over. The most watched are:

- **9 and 20** — short-term, the last few weeks.
- **50** — medium-term, about ten weeks; a common line between a healthy and a struggling stock.
- **200** — long-term, close to a trading year. Above it reads as a long-term uptrend; below it, a long-term downtrend.

Tiny example: the last five closes are $100, $102, $101, $103, $104. The 5-period SMA is (100 + 102 + 101 + 103 + 104) ÷ 5 = $102. Today's close of $104 sits above the line — a small sign of short-term strength. Longer periods work identically.

A **golden cross** is popular jargon for a shorter average (usually the 50-day) crossing up through a longer one (usually the 200-day). A **death cross** is the same crossing downward. The dramatic names are just press labels. Because averages lag, a cross only confirms a shift already weeks old.

> **NOTE**
> Moving averages work best when price is trending. In a sideways range, price whips across the line and the averages point nowhere.

VWAP: The Day’s Fair-Price Line

VWAP stands for Volume-Weighted Average Price: the average price of a stock for the day so far, weighted by how many shares traded at each price — prices where lots of shares changed hands count more than prices where few did. Think of it as the day's true average cost.

VWAP restarts every morning, so it belongs mainly to **day traders** — people who open and close trades within the same day. Giant institutions are often judged against VWAP — buy below it and they beat the day's average — so VWAP acts like a magnet and a dividing line.

- **Price above VWAP**: buyers have controlled the day so far; the day leans bullish (upward).
- **Price below VWAP**: sellers have controlled the day so far; the day leans bearish (downward).

Example: at 11:00 AM a stock's VWAP is $75.20 and the stock trades at $76.10 — almost a dollar above the day's average transaction price, so demand is winning. Sink below it and stay there, and the story flips to sellers. VWAP never says "buy" or "sell"; it says who is winning today. In the first minutes it swings wildly, so give it time to settle.

RSI: A Speedometer for Momentum

Momentum is the strength and speed behind a price move — not just that price rose, but how hard it pushed. The **RSI** (Relative Strength Index) turns recent momentum into one number from 0 to 100, comparing the size of recent up-moves to down-moves, traditionally over 14 periods.

- **Above 70** is conventionally called **overbought** — price has risen unusually fast and far.
- **Below 30** is conventionally called **oversold** — price has fallen unusually hard and fast.

"Conventionally" is the key word: customs, not laws. In a powerful uptrend, RSI can sit above 70 for days while price keeps climbing. Overbought means "stretched, by this one measure" — not "must fall now."

RSI's most respected use is **divergence** — the indicator and price disagreeing. Example: a stock reaches a new high of $120 on Monday with RSI at 74. Thursday it edges to $121 — but RSI only reaches 66. Price made a new peak on a weaker push. That warning is called bearish divergence: the climb may be tiring. It is a warning, not an order — price can keep rising afterward.

MACD: Watching Two Averages Argue

The **MACD** (say "mack-dee") stands for Moving Average Convergence Divergence. MACD compares a fast EMA with a slow EMA — traditionally the 12-period and the 26-period. When the fast average pulls away, momentum is building; when they squeeze together, momentum is fading. "Convergence" means coming together; "divergence," pulling apart.

It draws two lines: the **MACD line**, the gap between the fast and slow EMAs, and the **signal line**, a smoothed average of the MACD line itself (traditionally a 9-period EMA of it).

The classic reading is the **signal crossover**. When the MACD line crosses up through the signal line, recent momentum has just turned upward — a possible early hint of strengthening. Crossing down means momentum has rolled over. MACD is built from moving averages, so it lags: the crossover comes after the turn has begun.

Bollinger Bands: A Belt That Breathes

Volatility is how much and how fast price typically swings — how jumpy a market is. **Bollinger Bands** draw three lines: a moving average in the middle (usually the 20-period SMA) and two outer bands a set distance above and below it, based on how much price has been swinging lately. The behavior:

- When price gets jumpy, the bands **expand**.
- When price gets quiet, the bands pinch into a narrow **squeeze**.

The squeeze is the famous part. Very quiet periods tend to end with a bigger move, in one direction or the other. A squeeze says energy is building — never which direction. Also unlearn a misunderstanding: touching the upper band is not an automatic sell signal, nor the lower band an automatic buy — in a strong trend, price can "walk the band" for days.

Volume: The Crowd Behind the Move

Volume is how many shares (or contracts) changed hands in a period — one candle might see 200,000 shares trade, a quiet one 8,000. Volume answers what price cannot: how many people showed up?

The core principle of **volume analysis** fits in one sentence: volume confirms moves. A **breakout** — price pushing above a level it could not pass before — means far more when volume surges with it. The same breakout on weak volume is suspect: little commitment, and a higher chance it fizzles. A sell-off on enormous volume shows real urgency to exit.

Example: a stock has sat under $60 for a month. Tuesday it closes at $61.40 on volume of 3.2 million shares, against a recent daily average of 1.1 million — nearly triple the normal crowd pushed it through $60. The same $61.40 close on only 600,000 shares — half the usual crowd — would tell a much weaker story.

> **RULE**
> Price tells you what happened; volume tells you how much it mattered.

ATR: The Average Daily Wiggle

The **ATR** (Average True Range) answers a homey question: how much does this thing normally move in a day? For each of the last, traditionally, 14 days, it measures the full range price traveled — the whole high-to-low swing, including overnight gaps — then averages them. The result is in dollars: an ATR of $2.40 means the stock recently traveled about $2.40 from daily low to daily high, on average. Traders call it the **average daily wiggle**.

ATR never points up or down. It is a measuring stick, useful two ways. First, expectations: with an ATR of $0.60, hoping for a $3 move today is wishing; with an ATR of $6, a $0.50 move is noise. Second, risk: many traders set their protective exit — the price where they admit the trade idea was wrong — at a distance related to ATR, and trade smaller when ATR is large.

Support, Resistance, and Fibonacci Levels

Support is a price area where declines have repeatedly stalled — a floor where buyers showed up before. **Resistance** is a ceiling where rallies kept stalling as sellers appeared. Treat them as zones, not exact pennies: traders remember "around $50," not "$50.13." Old resistance, once price breaks firmly above it and holds, often becomes new support — the ceiling becomes the floor.

Levels come from previous highs and lows and round numbers like $50 and $100, and work — to the extent they do — because so many traders watch the same places.

Fibonacci retracement is the famous add-on: after a clear move up, draw a tool between the move's low and high, and it marks lines at 38.2%, 50%, and 61.8% of the way back down. Those percentages come from the Fibonacci sequence of numbers. Example: a stock ran from $80 to $100. A 50% retracement brings it back halfway, to $90. The 50% level is not even a true Fibonacci ratio, yet it is watched anyway, which tells you what is really going on:

> **NOTE**
> Be honest about what these levels are. Support, resistance, and Fibonacci lines are conventions — landmarks that can become self-fulfilling, because price reacts partly where people expect it to and place orders. They are not laws of physics: price slices straight through them whenever real pressure is strong enough. Have a plan for when a level fails.

Multi-Timeframe Analysis: Zoom Out, Then Zoom In

A **timeframe** is the slice of time each candle represents — one minute, one hour, one day, one week. The same stock can look calm weekly and chaotic on a one-minute chart. **Multi-timeframe analysis** means checking more than one zoom level before judging.

- **Big timeframe first** (daily or weekly): What is the main trend? Where are the nearest big support and resistance zones?
- **Smaller timeframe second** (hourly or five-minute): Inside that big picture, what is happening right now?
- **Agreement is information.** If the daily trend is up and the hourly chart is rising too, the views support each other. If they fight — daily up, hourly plunging — that disagreement is itself worth knowing before risking a dollar. When timeframes disagree, respect the larger one more: it represents more trading and more money.

Building Your First Indicator Stack

The temptation now is to load every tool at once. Resist it. Indicators mostly repackage the same price data, so five of them repeat each other while cluttering the screen — **indicator overload**. A beginner stack covers only three jobs:

Job	Tool	What it answers
Trend	50- and 200-period moving averages, or trend lines	Which way is the main direction?
Day's control line	VWAP (for day trading)	Who is winning today — buyers or sellers?
Momentum (pick ONE)	RSI or MACD — never both to start	Is the move strong, stretched, or fading?

Add volume — the raw count of shares traded, not an indicator layered on price. An **oscillator** is an indicator that swings back and forth within a set range, like RSI. That is the whole starter kit; everything else arrives one tool at a time, later.

> **RULE**
> One trend tool, VWAP, and at most ONE oscillator. If a new indicator answers no new question, it does not go on your chart. A simple chart you fully understand beats a crowded one you half understand.

Worked Example: Reading One Chart, Start to Finish

Let us use everything on one made-up morning. The stock is a fictional company, ticker **XYZ**, and it is 10:30 AM. We read the chart the slow way: big picture first, conclusions last.

Step 1 — Name the trend. XYZ has climbed from $88 to $104 over three months. On the daily chart, price sits above its 50-day SMA ($99) and its 200-day SMA ($93), both sloping upward. Higher highs, higher lows. Verdict: the main trend is up.

Step 2 — Mark the map. The last big swing high was $105, so resistance sits around $105. It stalled at $98 twice, so $98 is the support zone below.

Step 3 — Check today's control line. XYZ opened at $103, dipped to $102.40, and now trades at $104.10. VWAP sits at $103.10, and price is above it: buyers are winning today, and the dip bounced right off VWAP.

Step 4 — Ask the one oscillator. Hourly RSI reads 61 — above the middle, so momentum leans upward, but below the 70 overbought convention, so the move is not wildly stretched. No divergence: price and RSI rose together.

Step 5 — Confirm with volume and the wiggle. Volume is running about 30% above the usual pace for this hour, and the up-moves carried more volume than the dip. ATR is $2.80, so a run from $104 to the $105 resistance, and even beyond, fits inside a normal day's travel.

Step 6 — State the honest summary. "Main trend up. Buyers control today above VWAP at $103.10. Momentum is positive but not extreme. Resistance at $105 is the next test; support sits at $98. Nothing here predicts that $105 breaks." That is technical analysis done right.

Common Beginner Mistakes

- **Loading every indicator at once.** Ten tools repeating the same data create confusion, not confidence.
- **Treating "overbought" as "sell now."** RSI above 70 means stretched, not finished.
- **Believing a crossover predicts the future.** Crossovers describe shifts that already began. They lag by design.
- **Ignoring volume.** A breakout on tiny volume is a rumor with no witnesses.
- **Drawing lines to fit a hope.** A real trend line connects obvious swing points any viewer would pick.
- **Using one timeframe only.** A terrifying five-minute chart may be a harmless wiggle in a calm daily uptrend.
- **Expecting the squeeze to pick a direction.** A Bollinger squeeze warns a bigger move may come — never which way.

Chapter Summary

- Technical analysis is reading charts to describe what buyers and sellers have been doing. It estimates probability; it never predicts.
- Name the trend first: uptrend, downtrend, or sideways. Trend lines and channels make the path visible.
- Moving averages smooth price into a line: the SMA weighs every day equally, the EMA weighs recent days more and reacts faster. The 9/20, 50, and 200 periods are the most watched.
- VWAP is the day's volume-weighted average price. Above it, buyers control the day so far; below it, sellers do.

- RSI measures momentum from 0 to 100: above 70 is conventionally overbought, below 30 oversold — customs, not laws. Divergence can warn that a move is tiring.
- MACD compares fast and slow EMAs, and its crossovers describe momentum turning after the turn has begun. Bollinger Bands widen and narrow with volatility; a squeeze warns of a bigger move, not its direction.
- Volume confirms moves: big moves on heavy volume carry conviction; big moves on light volume deserve doubt. ATR measures the average daily wiggle in dollars, not direction.
- Support, resistance, and Fibonacci levels are widely watched conventions that can act self-fulfilling — and fail when real pressure overwhelms them.
- Check the big timeframe first, then the small one. Keep the beginner stack small: a trend tool, VWAP, one oscillator at most, plus volume.

Check Yourself

1. A stock trades above its VWAP at noon. Who has controlled the day so far, and why does VWAP say so?
2. How do an SMA and an EMA differ, and what trade-off comes with the EMA's speed?
3. RSI prints 74 while a stock makes new highs three days in a row. Does that prove the rise is over? Why or why not?
4. A stock breaks above a level it failed at for a month, on half its average volume. Why trust that breakout less than the same breakout on triple the volume?
5. Name the three parts of the beginner indicator stack, and the rule about oscillators.

Answers: 1) Buyers — VWAP is the day's average transaction price weighted by shares traded, and price above it means participants paid more than that average. 2) The SMA weighs every period equally; the EMA weighs recent periods more and reacts faster — earlier signals, but more false alarms. 3) No. Above 70 is a convention meaning "stretched," not a law; strong trends can stay overbought for days while price keeps rising. 4) Volume confirms moves: a breakout backed by unusually few shares has little crowd commitment and is more likely to fizzle. 5) A trend tool (moving averages or trend lines), VWAP, and at most ONE oscillator — RSI or MACD, not both — plus volume. If a new indicator answers no new question, it does not go on the chart.

> **RULE**
> Describe first, predict never. Read the trend, check who controls the day, ask one oscillator, confirm with volume — and let probability, not hope, do the talking.



AA-08

CHART PATTERNS & PRICE ACTION

Trends, breakouts, support and resistance, and the classic patterns.

Alpha Academy · Team Alpha Trading

Chart Patterns & Price Action

In Chapter 5 you learned to read single candles. This chapter zooms out: you will learn to read the *shape* of a whole move — the repeating patterns price makes as buyers and sellers fight — and two key levels: support and resistance.

By the end, you will be able to say, in plain words, what structure a chart is in, where its important levels are, and which classic patterns might be forming — plus the honest truth about what patterns can and cannot do.

> **NOTE**
> Everything in this chapter is about probabilities, never certainties. A pattern that "usually" works still fails often. Treat this chapter as learning to read weather signs — not a forecast that must come true.

What Is Price Action?

Price action is simply the movement of price on a chart, and the study of what that movement tells you. Traders who "trade price action" decide by watching price itself — its swings, levels, and candle shapes — instead of piling on tools.

The idea underneath it: price is where a buyer and a seller agreed to do business. Every swing up means buyers were, for a while, more eager; every swing down means sellers were. The chart is a record of that argument, and price action is reading it carefully — not to predict the future, but to answer three questions: who has been winning lately, where did the fight change hands before, and what is price doing now at the levels that mattered?

Trend Structure: Reading the Staircase

Chapter 5 introduced the staircase: an uptrend makes higher peaks and higher valleys. Now we give those swings their real names.

When price swings up, it stops at a **swing high** — a peak. When it swings down, it stops at a **swing low** — a valley.

- **Uptrend structure:** each swing high is higher than the one before (**higher highs**), and each swing low is higher too (**higher lows**). Traders shorten this to "HH and HL."
- **Downtrend structure:** each swing high is lower than the one before (**lower highs**), and each swing low is lower too (**lower lows**) — "LH and LL."
- **Sideways structure:** highs and lows stay roughly level. Price is ranging, not trending (the ping-pong box from Chapter 5).

Why this matters: trend structure is the simplest honest description of who is winning. In an uptrend, buyers keep paying higher prices *and* keep rescuing every dip at a higher level than the last. That is demand in control.

Traders also watch for the moment structure **breaks**. If a stock in an uptrend suddenly makes a swing low *lower* than the previous swing low, the staircase is damaged. That does not guarantee a reversal — but it is the first objective sign the uptrend's story may be changing.

> **TIP**
> Practice labeling swings. Open any stock's daily chart, scroll back a year, and mark the peaks and valleys: HH, HL, HH, HL... or LH, LL. Ten minutes a day beats any indicator for building this skill.

Support and Resistance: The Floor and the Ceiling

Support is a price area where buying has repeatedly stepped in and stopped a fall — a floor under price. **Resistance** is a price area where selling has repeatedly stepped in and stopped a rise — a ceiling over price.

See it this way: a ball dropped toward a wooden floor bounces — that floor is support. A ball tossed at a ceiling gets knocked back down — that ceiling is resistance.

Worked Example

Say a stock falls to $40 three times in two months, and each time buyers push it back up. The $40 area is support. Meanwhile, every rally stalls near $48, where sellers keep unloading. The $48 area is resistance. Between them sits a **range** with a known floor and ceiling.

Zones, Not Lines

Beginners draw support as one exact line at $40.00 and panic when price dips to $39.60. Real markets are messier: support and resistance are **zones** — neighborhoods, not street addresses.

Why? Because thousands of people placed orders at slightly different prices around that level: $39.75, $40.10, $39.90. Treat every level as a band a few dimes wide (a few dollars, on an expensive stock). Price entering the zone is what matters — not price touching one magical penny.

Role Reversal: When a Ceiling Becomes a Floor

One of the most useful ideas in all of chart reading: **broken levels tend to flip roles.**

- If price finally breaks *above* resistance and later falls back to that level, the old ceiling often acts as a new floor: the sellers are gone, and buyers who missed the move buy there. Old resistance becomes new support.
- If price breaks *below* support and later rallies back up to it, the old floor often acts as a ceiling. Old support becomes new resistance.

> **RULE**
> The more times a level has been tested and held, the more traders are watching it — and the more meaningful its eventual break. A level tested four times matters far more than one touched once.

Breakouts and Failed Breakouts

A **breakout** is when price pushes through a level that had been holding it — closing above resistance, or below support — and keeps going. Breakouts matter because when a floor or ceiling finally gives way, everyone who bet on it holding has to react at once, which can fuel a fast move.

Traders watch for these signs that a breakout is real:

- **A close through the level**, not just a quick poke above it. A wick poking through means little; a close on the other side means buyers actually held the ground.

- **Volume rising** on the breakout. Heavy volume means conviction; a breakout on weak volume is suspect.
- **A successful retest.** Price breaks out, comes back to the old level, the level flips role (resistance becomes support), and price bounces. Patient traders often wait for this instead of chasing.

A **failed breakout** (also called a **false breakout**) is the trap: price pokes through the level, luring in eager buyers, then falls back inside the range. Everyone who chased is now trapped and selling, which can push price down faster.

> **RISK**
> Chasing a breakout the second price crosses a line is one of the most common ways beginners lose money. Wicks cross lines constantly. Wait for a close, watch volume, and know where you will exit if it fails — before you enter.

The Classic Patterns

Over a century of chart watching, traders noticed the same shapes appearing again and again. Each shape is just the buyer-seller argument drawn in a recognizable form. For each pattern: what it looks like, and what traders watch for.

Double Top and Double Bottom

A **double top** looks like the letter M: price rises to a level, falls back, rises to roughly the same level again, and fails again. Two rejections at the same ceiling suggest buyers ran out of strength there. A **double bottom** is the same shape flipped — the letter W — two failed attempts to push through a floor, suggesting sellers are exhausted.

What traders watch for: the pattern only counts when price breaks the **neckline** — the low point between the two peaks (double top) or the high point between the two dips (double bottom).

Head and Shoulders

The **head and shoulders** pattern has three peaks: a modest peak (left shoulder), a higher peak (the head), then a modest peak about the height of the first (right shoulder). Appearing after an uptrend, it suggests the climb is tiring: the final push could not reach the head's height. The line connecting the valleys under the peaks is the neckline; a break below it is the signal traders watch. The flipped version, **inverse head and shoulders**, appears after a downtrend and suggests a bottom may be forming.

Triangles

A **triangle** forms when price squeezes between two converging lines — the swings get smaller and smaller.

- **Ascending triangle:** a flat ceiling (resistance) with rising lows underneath. Buyers keep bidding higher against the same ceiling. Traders watch for a break *up*.
- **Descending triangle:** a flat floor (support) with falling highs above it. Sellers keep pressing down against the same floor. Traders watch for a break *down*.
- **Symmetrical triangle:** highs falling and lows rising, squeezing toward a point. Neither side has the edge yet; traders watch for a break either way and follow it.

The key idea in all three: the squeeze cannot last, and the eventual break often moves fast — which is why the failed-breakout warning above matters so much here.

Flags and Pennants

A **flag** appears after a sharp, fast move (the **flagpole**): price then drifts sideways or slightly against the move in a small, tidy channel. A **pennant** is the same idea with a small triangle instead of a channel. These are usually **continuation patterns** — a pause to catch breath inside a strong trend, not a reversal. Traders watch for a break in the same direction as the flagpole.

Ranges and Rectangles

The simplest pattern of all: price bounces between a clear support zone and a clear resistance zone, forming a box — a **rectangle**. Some traders buy near the floor and sell near the ceiling while the box holds; everyone watches for the breakout that ends it.

Wedges

A **wedge** looks like a triangle, but both lines slope the same direction. In a **rising wedge**, price climbs between two rising lines that keep converging — each push up is weaker than the last. It often appears when an uptrend is running out of steam, and traders watch for a break *down*. In a **falling wedge**, price sinks between two converging falling lines — each push down is weaker — and traders watch for a break *up*.

The Honest Truth About Patterns

Patterns are probabilities, not promises. A double top does not have to reverse. A flag does not have to continue. Every pattern in this chapter fails, regularly, in real markets. What a pattern gives you is not certainty — it is a *plan*: a place to enter, and a level that tells you you are wrong.

Be skeptical, for real reasons:

- **Hindsight draws perfect patterns.** After the fact, every chart is full of beautiful M's and W's. In real time, halfway through forming, most patterns look like meaningless mess.
- **Two traders draw the same chart differently.** One sees a triangle; another sees a falling wedge. If patterns were an exact science, there would be one answer.
- **Big players know the levels too.** Obvious levels attract orders — including orders that trigger false breakouts and trap beginners, as you read above.

> **RISK**
> The most dangerous sentence in trading is "this pattern always works." It does not. Most beginners lose money, and traders who bet as if a pattern cannot fail are the fastest to blow up an account. Patterns help you organize risk. They never remove it.

So what are patterns actually good for? Three things: they tell you **where you are** (which structure, which levels), **what would change your mind** (a broken neckline, a failed breakout), and **where your exit is** if you are wrong. Used that way — as a map, not a prophecy — they are genuinely useful.

How Beginners Should Practice

Pattern recognition is a visual skill, like reading sheet music. It comes from reps, not from memorizing this chapter.

- **Paper trade first. Paper trading** means practicing with fake money in a simulator most brokers offer free. Spot patterns, make your plan, place pretend trades, and see what actually happens — with zero

dollars at risk.

- **Journal with screenshots.** Every time you think you see a pattern, save a screenshot *before* anything happens. Write two or three sentences: what pattern, what you expect, what would prove you wrong. A week later, screenshot it again and grade yourself honestly.
- **Score the misses on purpose.** Your journal should fill up with failed patterns. That is not discouragement — it is the real success rate, learned cheaply. Watching fifty of your own pattern calls play out teaches more than reading fifty chapters.
- **One pattern at a time.** Pick a single pattern — say, double tops — and hunt only for that one for two weeks. Depth beats breadth while you train your eye.

> **TIP**
> Slow-motion practice works too. Many platforms replay old price action bar by bar. Reveal one candle at a time and call the structure out loud. It feels silly. It works.

Common Beginner Mistakes

- **Drawing support and resistance as exact lines.** They are zones. Price dipping a few cents into a zone is normal, not a break.
- **Calling a pattern before it completes.** A double top is not a double top until the neckline breaks. Half-formed patterns are just price moving.
- **Ignoring the trend the pattern sits in.** A bullish pattern fighting a strong downtrend is a knife fight. Context first, pattern second.
- **Chasing breakouts on the first poke through a level.** Wait for a close and volume. Failed breakouts exist to punish chasing.
- **Seeing patterns everywhere.** If every wiggle looks like a head and shoulders, you are drawing your hopes, not the chart. "Messy and unclear" is a valid, common reading.
- **Risking real money while still learning to see.** Paper trading exists so your tuition is time, not dollars.

Chapter Summary

- Price action is the study of price movement itself: who is winning, where the fight changed hands, and what price is doing at important levels.
- Trend structure is described by swing highs and lows: higher highs and higher lows (uptrend), lower highs and lower lows (downtrend), or level swings (sideways).
- Support is a floor where buying stops falls; resistance is a ceiling where selling stops rises. Both are zones, not lines.
- Broken levels tend to flip: old resistance often becomes new support; old support, new resistance.
- A breakout is a close through a level, ideally on rising volume. A failed breakout traps chasers and can reverse hard.
- The classic patterns — double top/bottom, head and shoulders, triangles, flags and pennants, rectangles, wedges — are the buyer-seller argument in recognizable shapes.
- Patterns are probabilities, not promises. Their real value is a plan: where you are, what changes your mind, where your exit is.
- Practice by paper trading and journaling screenshots, one pattern at a time.

Check Yourself

1. A stock's swings go: high of $60, low of $52, high of $64, low of $55, high of $68. Is this uptrend, downtrend, or sideways structure — and why?
2. A stock bounces off $30 four times, finally breaks below it, then rallies back to $30 and gets rejected. What is this an example of?
3. Why is it a mistake to draw support as one exact price line?
4. Price pokes above resistance briefly on light volume, then falls back into its range. What happened, and who got hurt?
5. After an uptrend, price forms a modest peak, a higher peak, then a second modest peak, and breaks below the line connecting the valleys. What pattern is it, and what completes it?

Answers: 1) Uptrend structure — the highs keep rising ($60, $64, $68: higher highs) and so do the lows ($52, $55: higher lows). 2) Role reversal: the old $30 support flipped and acted as resistance once price broke below it. 3) Because orders cluster at different prices around a level, so levels behave as zones, not single pennies — treating them as exact lines makes normal wiggles look like breaks. 4) A failed (false) breakout; traders who chased above resistance are trapped and likely selling, which can push price down. 5) Head and shoulders; the break below the neckline completes it.

> **RULE**
> Let the pattern finish and the level prove itself. A close through the level, on real volume, is the market voting — a wick poking through is just noise asking for your money.



AA-09

FUNDAMENTAL ANALYSIS A–Z

What a company is really worth — statements, earnings, and value in plain words.

Alpha Academy · Team Alpha Trading

Fundamental Analysis A–Z: What a Company Is Really Worth

Imagine two lemonade stands for sale on your street. Both are priced at $10,000. One is busy every day, owns its cart outright, and has cash saved in the bank. The other is slow, owes money to three people, and barely covers its costs. Same price — but they are NOT worth the same amount. Learning to tell the difference is what this chapter teaches.

That skill has a name: **fundamental analysis**. It means studying a company's actual business — how much money it makes, how much it owes, how fast it is growing — to judge what the company is really worth, instead of just watching its stock price jump around.

After this chapter, you will be able to read the three basic financial reports every public company must publish, understand the numbers investors talk about most, and run a simple quality checklist before considering any stock for the long term.

> **NOTE**
> This chapter is education only, not financial advice. Fundamental analysis helps you understand a business. It cannot tell you the day to buy, and it never guarantees a profit.

Price Is Not the Same as Worth

A stock's **price** is simply what the last buyer paid for it. It changes every second the market is open, pushed around by news, fear, and excitement.

A company's **value** — what the business is truly worth — changes much more slowly. It depends on real things: the money the business earns, what it owns, what it owes, and how likely it is to keep earning in the future.

It works like buying a house: the asking price is just a hope. The real value depends on the house's condition and what similar homes actually sell for. Smart buyers study the house, not the price tag.

> **RULE**
> Price is what you pay. Value is what you get. Fundamental analysis is how you study the "what you get" part.

When price and value drift far apart, opportunities and dangers appear. A wonderful company can be a bad buy if the price is silly-high. A struggling company can look "cheap" and still be a trap, because its value is shrinking.

The Three Financial Statements, Translated

Every public company must publish three reports, usually four times a year. Together they tell the whole money story of the business:

- The **income statement** is the company's paycheck report. Over a period of time (usually three months), it shows how much money came in and how much was left after all the bills.
- The **balance sheet** is a snapshot — a photo taken on one single day. It shows everything the company owns, everything it owes, and what is left over for the owners.

- The **cash flow statement** tracks the actual cash moving in and out of the company's bank account — real money, not accounting math.

Let's meet a fictional company: **BrightWheel Toys**, a maker of ride-on toys for kids. Its numbers work exactly like a real company's.

BrightWheel's Income Statement (one year)

- **Revenue** (total sales): $10,000,000 — customers paid BrightWheel $10 million for toys.
- **Cost of goods sold**: $6,000,000 — the plastic, wheels, and factory labor to make the toys.
- **Gross profit**: $4,000,000 — what is left after making the product ($10M − $6M).
- **Operating expenses**: $2,500,000 — rent, office salaries, advertising, insurance.
- **Net income** (the final profit, often just called **earnings**): $1,500,000 — the bottom line after everything.

> **TIP**
> "Top line" means revenue; "bottom line" means net income — the last line of the paycheck report. "Grew the top line" means sales went up; "the bottom line shrank" means profit went down.

BrightWheel's Balance Sheet (one day)

- **Assets** (what it owns): $8,000,000 — factory, inventory of toys, and cash in the bank.
- **Liabilities** (what it owes): $3,000,000 — a bank loan and bills owed to suppliers.
- **Equity** (what is left for the owners): $5,000,000 — because $8M owned − $3M owed = $5M left over.

> **RULE**
> Assets = Liabilities + Equity. Always. If a company owns $8 million and owes $3 million, the owners' slice is worth $5 million on paper. This one equation is the whole balance sheet.

BrightWheel's Cash Flow (one year)

BrightWheel's profit was $1.5 million, but its bank account only grew by $900,000. Why? Because it spent $600,000 cash on new delivery trucks and machines. Profit is an opinion shaped by accounting rules; cash is a fact. A company can show a profit on paper and still run out of cash — and companies die from running out of cash, not from running out of accounting profit.

Earnings and EPS: The Score Everyone Watches

Earnings is another word for net income — the company's final profit for a period. But a giant company and a tiny one cannot be compared by total profit alone, so investors divide the profit by the number of shares. That gives **EPS — earnings per share**: how much profit belongs to each single share of stock.

The math is simple: **EPS = Net Income ÷ Shares Outstanding**. **Shares outstanding** means the total number of shares that exist.

BrightWheel earned $1,500,000 and has 1,000,000 shares. So **EPS = $1,500,000 ÷ 1,000,000 = $1.50**. Every share you own "earned" $1.50 of profit this year.

Four times a year, companies announce their earnings in what traders call **earnings season**. Analysts (professionals who study companies for big firms) publish estimates of what they expect EPS to be. Reporting above the estimate is an **earnings beat**; below it is a **miss**. Prices often jump on beats and drop

on misses — more on that in the chapter on what moves markets.

Revenue Growth: Is the Pie Getting Bigger?

Profit matters, but so does growth. **Revenue growth** tells you whether a company's sales are expanding or shrinking compared with the same period a year earlier.

If BrightWheel sold $10 million of toys this year and $8 million last year, its revenue grew by 25%: ($10M – $8M) ÷ $8M = 0.25, or 25%.

Why compare with a year earlier instead of last quarter? Because many businesses are seasonal. Toy sales explode before the holidays and sleep in February. Comparing this December to last December is fair; comparing December to February is not.

A company whose sales grow year after year is usually winning customers. A company with shrinking sales has a problem cost-cutting can only fix for so long — you cannot cut your way to growth forever.

Profit Margins: How Much of Each Dollar Survives

A **margin** is a percentage: out of every dollar of sales, how much survives to a certain level of profit. Three margins cover almost everything a beginner needs:

- **Gross margin** = gross profit ÷ revenue. BrightWheel: $4M ÷ $10M = 40%. Out of every $1 of sales, 40 cents survives after making the product.
- **Operating margin** = operating profit ÷ revenue. This is what survives after running the business day to day, too.
- **Net margin** = net income ÷ revenue. BrightWheel: $1.5M ÷ $10M = 15%. Out of every $1, the company keeps 15 cents as final profit.

Margins let you compare companies of different sizes fairly. A grocery chain might keep only 2 cents per dollar but sell billions of dollars of food; a software company might keep 30 cents. Neither is automatically better — but if a company's margins keep shrinking year after year, something is wrong: competition is squeezing it, or its costs are running away.

The P/E Ratio: The Price Tag on Profits

The most famous number in investing is the **P/E ratio** — price divided by earnings. It answers one question: "How many dollars am I paying for each $1 of yearly profit?"

P/E = Share Price ÷ EPS

BrightWheel's stock trades at $30 per share, and its EPS is $1.50. So **P/E = $30 ÷ $1.50 = 20**. Investors are paying $20 for every $1 of BrightWheel's yearly profit.

A worked example: if a stock costs $100 and the company earns $5 per share per year, the P/E is 20. If another stock costs $100 but earns only $2 per share, its P/E is 50 — you pay much more per dollar of profit, usually because buyers expect that profit to grow fast.

The Limits of P/E — Read This Carefully

- A high P/E is not automatically bad, and a low P/E is not automatically a bargain. A low P/E often means the market expects the company's profits to shrink — the stock is cheap for a reason.

- P/E is useless for companies with no profit — if EPS is negative, the ratio is meaningless. Many young companies lose money on purpose while they expand.
- P/E only makes sense compared with something: the same company in past years, or similar companies in the same industry. A P/E of 15 might be expensive for a slow utility company and cheap for a fast-growing software firm.
- One strange year can poison the number. A one-time gain or loss can make EPS look amazing or terrible for a single year. Check several years.

> **RISK**
> Beginners love hunting for "low P/E bargains." Many of the lowest P/E stocks are companies in real trouble — dying businesses the market is pricing for decline. Cheap can get cheaper. The ratio is a question, not an answer.

Debt: Borrowed Money, in Plain Words

Debt is money a company has borrowed and must pay back, usually with **interest** (a fee charged for borrowing, like rent on money).

Some debt is normal and even smart — a growing company might borrow cheaply to build a factory that earns far more than the interest costs. Debt becomes dangerous when payments are heavy compared with the money the business brings in. Think of a person: a small car payment on a good salary is fine. Five maxed-out credit cards on a tiny salary is a crisis waiting for one bad week.

A quick beginner check: compare total debt with the cash the company holds and the profit it earns each year. If a company owes many years' worth of profits and has little cash, one bad year can threaten its survival. Companies with more cash than debt are called **net cash** companies, and they sleep well at night.

Free Cash Flow: The Money That Is Truly Free

Free cash flow is the cash left over after a company pays all its bills AND buys the equipment it needs to keep running. One line: it is the real, spendable money the business generated — cash it could hand back to owners, save, or reinvest without hurting itself.

Investors love free cash flow because, unlike accounting profit, it is very hard to fake. Cash either arrived in the bank account or it did not.

Dividends and Buybacks: Getting Money Back

Profitable companies with extra cash return some of it to shareholders (the owners — including you, if you own shares) in two ways:

- A **dividend** is a cash payment a company sends its shareholders — like a small thank-you check for owning the stock. If a stock pays a $2 yearly dividend and trades at $50, its **dividend yield** (dividend ÷ price) is 4%. Dividends are never guaranteed; a troubled company can cut or cancel them.
- A **buyback** (or share repurchase) is when a company buys its own shares back and retires them. Fewer shares remain, so each remaining share owns a bigger slice of the same company — like cutting a pizza into 8 slices instead of 10.

Both return value, just differently: dividends hand you cash directly; buybacks quietly grow your ownership percentage.

Moats and Quality: Why Some Companies Stay Winners

A **moat** is whatever protects a company from competitors — named after the water-filled ditch around a castle. Plain-word examples:

- A brand people trust and pay extra for, year after year.
- A product that is painful to switch away from, because all your data, habits, or equipment already live there.
- Being the biggest, so the company can buy supplies cheaper than any rival.
- Legal protection, like a patent on a medicine no one else may copy until it expires.

Strong moats protect high margins for years; without one, competitors copy the product and crush its prices. Always ask: "What stops someone else from doing exactly this, cheaper?" If the honest answer is "nothing," be careful.

How Beginners Actually Use This: The Quality Checklist

You do not need a finance degree. Before considering any long-term stock purchase, walk through this table honestly. One "no" does not always disqualify a company — several should slow you down.

Check	What you are really asking
Revenue growth	Have sales grown over the last 3–5 years?
Profits	Is the company actually profitable, most years?
Margins	Are margins steady or improving, not collapsing?
Free cash flow	Does it generate real cash, not just paper profit?
Debt	Could it survive a bad year without panic?
Moat	Is there a real reason competitors cannot copy it?
Price	Is the P/E reasonable next to its own history and rivals?
Understanding	Can you explain in one sentence how it makes money?

> **TIP**
> Every number in this chapter is free. Companies file these reports with the SEC (the US agency that oversees markets), and brokers and finance websites show them on each stock's "financials" page. You never need to pay a guru to see them.

The Honest Limits of Fundamental Analysis

Here is the truth this chapter owes you: fundamental analysis has real limits.

First, it tells you nothing about timing. A stock can be overpriced and keep climbing for years, or underpriced and keep sinking. The market can disagree with your homework for a long time.

Second — and this matters most — **a great company can still be a bad buy**. If everyone already knows a company is wonderful, its price may assume perfection for the next decade. Then even good news disappoints, and buyers who paid the silly price lose money on a perfectly fine business. Paying too much for quality is one of the most common ways careful investors still lose.

Third, these reports describe the past, not the future. Your job is to judge — humbly — whether the story continues.

That is why patient investors combine two skills: fundamentals to decide WHAT is worth owning, and price discipline to decide what it is worth paying.

Common Beginner Mistakes

- Buying a stock only because its P/E is low, without asking WHY it is low.
- Looking at one quarter of earnings instead of several years of history.
- Confusing a great product with a great investment — the price you pay still matters.
- Ignoring debt because the company's ads and story feel exciting.
- Falling in love with a company and refusing to see margins shrinking or sales stalling.
- Believing a dividend is guaranteed. It is not — it can be cut at any time.

Chapter Summary

- Fundamental analysis means judging what a company is really worth from its business results, not its daily price swings. Price is what you pay; value is what you get — and they are often different.
- The income statement is the paycheck report; the balance sheet is the snapshot of what is owned and owed (Assets = Liabilities + Equity); the cash flow statement tracks real money in and out.
- EPS is net income divided by shares outstanding — the profit belonging to one share.
- Revenue growth shows whether sales are expanding; margins show how much of each sales dollar survives as profit.
- The P/E ratio is price ÷ EPS — how much you pay for $1 of yearly profit. It is a comparison tool with real limits, not a bargain detector.
- Debt is fine in moderation and dangerous when payments dwarf earnings and cash. Free cash flow is the real spendable cash a business generates after maintaining itself.
- Companies return cash through dividends (direct payments) and buybacks (shrinking the share count so your slice grows).
- Moats — brands, switching pain, size, patents — protect profits from competitors.
- Even a great company is a bad buy at a silly price.

Check Yourself

1. In plain words, what is the difference between a stock's price and a company's value?
2. A company earns $2,000,000 and has 500,000 shares outstanding. What is its EPS?
3. That same company's stock trades at $60. What is its P/E ratio?
4. Which of the three statements tracks real cash moving in and out, and why does that matter?
5. Name two ways a profitable company can return cash to its shareholders.

Answers: 1) Price is what the last buyer paid and changes every second; value is what the business is truly worth based on its earnings, assets, debts, and future — it changes slowly. 2) EPS = $2,000,000 ÷ 500,000 = $4.00 per share. 3) P/E = $60 ÷ $4 = 15. 4) The cash flow statement — because companies die from running out of cash, not accounting profit, and cash is hard to fake. 5) Dividends (cash payments to shareholders) and buybacks (the company repurchases shares, so each remaining share owns a bigger slice).

> **RULE**
> Study the business first and the price second — and never pay a silly price, even for a wonderful company.



AA-10

WHAT MOVES MARKETS

The Fed, inflation, jobs reports, earnings season — and the VIX.

Alpha Academy · Team Alpha Trading

What Moves Markets: News, the Fed & Earnings Season

A stock sits still at $50 all morning. Then, in one minute, it jumps to $53. Nothing about the company changed in that minute — no factory was built, no product shipped. So why did the price move?

Because prices move when buyers and sellers change their minds about what the future will bring. This chapter is about the forces that change those minds: the Federal Reserve, scheduled economic reports, company earnings, surprise news, and plain human emotion. After reading it, you will know what a "catalyst" is, why good news can make a stock FALL, and how to follow market news on a calm routine instead of drowning in it.

> **NOTE**
> This chapter explains how news moves prices. It is education only, not financial advice, and it is not a system for trading the news — reacting to headlines in the first seconds is one of the fastest ways beginners lose money.

First, the One Engine Under Everything

Every price in every market is set by **supply and demand** — how much people want to sell versus how much they want to buy. If more people want to buy than sell at the current price, buyers bid the price up until enough sellers agree. If more want out than in, the price falls until buyers show up. News does not move prices directly; it moves them only by changing how badly people want to buy or sell. Everything below is just a list of things that turn this one engine.

The Federal Reserve and Interest Rates

The **Federal Reserve** — usually just called **"the Fed"** — is the central bank of the United States. Its most famous job is setting a key **interest rate**. An interest rate is the price of borrowing money, charged as a percentage. When the Fed raises or lowers its rate, borrowing costs across the whole country — mortgages, car loans, business loans, credit cards — tend to follow.

Why do stock markets hang on every word the Fed says? Two plain reasons:

- **Cheap money lifts business.** When rates are low, companies borrow cheaply to build, hire, and expand. Customers also borrow cheaply to buy houses, cars, and phones. Profits tend to grow, and growing profits support higher stock prices.
- **Expensive money squeezes business.** When rates are high, loans cost more, customers slow their spending, and company profits get squeezed. Also, safe bank accounts and government bonds start paying attractive interest — so some investors pull money OUT of risky stocks and park it where the return is guaranteed.

Here is the money seesaw beginners must understand: higher rates make safe investments more attractive AND make future company profits worth less today. That is why a hint that the Fed will raise rates can drop the whole market in seconds, and a hint it will cut rates can send prices flying.

The Fed's leaders meet about eight times a year. The market watches the rate decision itself, and the **press conference** afterward, where the Fed Chair (the Fed's leader) answers questions. Traders read those answers like weather forecasts for money.

> **RISK**
> Fed days are some of the most violent, whipsawing days in the market — prices can spike up, crash down, and reverse again within minutes. They are a spectator sport for beginners, not a playground.

Economic Reports: Report Cards for the Whole Economy

The government publishes scheduled reports about the health of the US economy. Think of them as report cards, released on known dates at known times — **8:30 AM Eastern** for most of the big ones, before the market opens. Two matter most to beginners:

CPI: The Inflation Report

Inflation means prices in general are rising — your dollar buys a little less than it did before. The **CPI (Consumer Price Index)** measures it by tracking the cost of a standard basket of everyday goods and services: groceries, rent, gasoline, haircuts.

Why markets care: if CPI shows inflation running hot, traders expect the Fed to keep rates high (or raise them) to cool the economy — remember the seesaw. If CPI shows inflation calming down, the Fed has room to cut rates, and markets often cheer. CPI is released once a month, and in recent years it has been one of the single most market-moving reports in the world.

The Jobs Report

Once a month, the government reports how many jobs the economy added, and the **unemployment rate** — the percentage of people who want work but do not have it.

Strong job growth sounds purely good, but markets read it through Fed glasses: a red-hot job market can keep inflation high, which can keep rates high. So sometimes a "great" jobs report makes stocks fall, and a mildly disappointing one makes stocks rise. Confusing at first — but it makes sense once you see that traders are really asking one question: "What does this make the Fed do next?"

Other reports exist — retail sales, housing numbers, factory surveys — but CPI and jobs move markets the most. As a beginner, those two are enough to watch.

Earnings Season: Report Cards for Each Company

You met earnings in the fundamental analysis chapter: four times a year, every public company must report its results — revenue, profit, and EPS (earnings per share, the profit belonging to each share). These release periods are called **earnings season**, and for individual stocks, nothing moves the price more reliably.

Two parts of the report matter:

- **The results themselves** — did the company beat or miss what analysts (professional company-watchers) expected?
- **Guidance** — the company's own forecast for the coming months, given by its leaders on a public phone call after the report. Guidance is often MORE powerful than the results. A company can report a fine quarter and still crash if its leaders warn that the next quarter looks weak. The market trades the future, not the past.

> **TIP**
> Earnings dates are published weeks in advance, and every broker shows them. Before you buy any stock, check when its next earnings report lands. Holding a new position through earnings is a gamble on a coin flip you do not yet understand — the stock can gap up or down 5%, 10%, sometimes far more, overnight.

Company-Specific Catalysts: One Company, One Story

A **catalyst** is any event that gives people a new reason to buy or sell. Beyond earnings, individual companies get hit by their own headlines:

- **Regulator decisions** — for a drug company, an FDA decision (the FDA is the US agency that approves medicines) can double the stock or cut it in half in a day.
- **Product launches** — a hit product lifts sales expectations; a flop or a delay sinks them.
- **Lawsuits and investigations** — legal trouble means possible fines, payouts, and distraction.
- **Leadership changes and deals** — a respected CEO leaving, or news that a bigger company wants to buy this one (usually at a premium — a price above today's), can move a stock instantly.

These are unpredictable — you cannot schedule them — which is why position size (never betting too much on one company) matters so much for beginners.

The 11 Sectors: The Market's Neighborhoods

The **S&P 500** (an index — a list that tracks 500 large US companies as one number) sorts its companies into 11 **sectors**, meaning groups of businesses that do similar things. When news hits, whole neighborhoods often move together: oil prices lift energy stocks, high interest rates squeeze real estate, and so on.

Sector	What these companies do, in plain words
Technology	Computers, software, chips, and the internet services built on them
Health Care	Hospitals, insurers, drug makers, and medical device companies
Financials	Banks, credit card companies, and insurance and investment firms
Consumer Discretionary	Things people buy when they have extra money — cars, restaurants, travel, online shopping
Consumer Staples	Everyday essentials people buy no matter what — food, toothpaste, household goods
Energy	Oil, natural gas, and the companies that drill, refine, and deliver them
Industrials	Airlines, machinery, delivery companies, defense builders, and manufacturers

Sector	What these companies do, in plain words
Materials	Mining, chemicals, metals, and packaging — the raw stuff other industries use
Real Estate	Companies that own buildings, malls, warehouses, and apartments and collect rent
Utilities	Electricity, water, and gas providers — steady, regulated, and usually slow-moving
Communication Services	Phone and internet companies plus media, streaming, and social platforms

Why this matters: if you own five stocks and all five are Technology, you do not own five separate bets — you own one big bet on one neighborhood.

Fear, Greed, and the VIX

Markets are machines operated by humans, and humans run on emotion. When prices rise for months, greed takes over — people buy because they fear missing out. When prices fall hard, fear takes over — people sell just to make the pain stop. This is why markets often fall faster than they rise: fear is a more urgent emotion than greed.

Traders watch this emotion with the **VIX**, an index that measures how much price-swing insurance costs on the S&P 500 (through options prices, a topic covered in the options chapters). In plain words:

- A **low VIX** (roughly under 15–20) means the crowd is calm — insurance is cheap because nobody expects trouble.
- A **high VIX** (30, 40, or more) means the crowd is scared and paying up for protection — this usually happens during sharp market drops.

> **NOTE**
> The VIX measures expected movement, not direction. A high VIX means traders expect BIG moves — it does not, by itself, say whether those moves will be up or down.

"But the News Was Good — Why Did the Stock Fall?"

This confuses every beginner, and the answer is one of the most valuable ideas in this whole academy: **prices move on the difference between what was expected and what actually happened — not on whether the news sounds good or bad.**

An analogy: imagine a student whose parents expect a perfect report card. She brings home five A's and one B. Objectively, that is a great report card. But because it fell short of what was expected, the reaction at home is disappointment. Now imagine a struggling student expected to fail everything who brings home straight C's. Objectively worse grades — but the reaction is celebration, because reality beat the expectation.

Stocks work the same way. When everyone already expects wonderful earnings, that expectation is already inside the price — traders say the good news is **priced in**. The company then has to be even MORE wonderful than the sky-high hope, or disappointed holders sell. This is why you will see headlines like

"Company beats earnings, stock falls 6%." The beat was smaller than the crowd had quietly bet on, or the guidance (the forecast) was soft.

> **RULE**
> The market does not trade the news. It trades the news VERSUS what it expected. Always ask: "What was already priced in?"

A Beginner's Routine for Watching Catalysts (Without Drowning)

You do not need to watch financial television all day — most of it is noise designed to keep you watching, not to make you money. Here is a calm routine that covers everything in this chapter:

- **Once a week (10 minutes, weekend):** Check the coming week's scheduled events — any Fed meeting, the CPI or jobs report dates, and the earnings dates of companies you own or are studying.
- **Each morning before the market opens (5 minutes):** Skim headlines for your own stocks only. Did anything real happen overnight — earnings, a deal, a lawsuit — or is it just commentary?
- **Know the clock:** Big reports land at 8:30 AM Eastern, before the open. Fed decisions land at 2:00 PM Eastern. Expect wild swings around both, and never place trades in the first chaotic minutes.
- **Keep a simple journal:** Date, event, what you expected, what actually happened, how price reacted. After a few months of entries, this chapter's patterns stop being theory and start being obvious.
- **Ignore the rest.** If a headline is not about the Fed, the economy's report cards, or a company you actually own or study, it is entertainment. Let it pass.

> **TIP**
> Every broker and most finance websites publish a free "economic calendar" and "earnings calendar" listing these dates. Bookmark both. Ten quiet minutes with a calendar beats ten hours of shouting TV, every single week.

Common Beginner Mistakes

- Trading in the first seconds after a headline, when prices are swinging wildly and spreads are at their worst.
- Buying a stock the day before its earnings report "because the news will be great," without realizing the greatness is already priced in — and the gap down is not.
- Thinking good news must mean the price rises and bad news must mean it falls. Expectations decide, not adjectives.
- Treating one hot CPI or jobs report as the whole story, instead of a trend the Fed watches over months.
- Owning five stocks in one sector and believing they are diversified (spread across different bets).
- Checking prices and headlines all day, every day, until fear or greed — not a plan — is making the decisions.
- Ignoring the calendar entirely, then being shocked that a position moved 12% overnight on an earnings date that was published weeks earlier.

Chapter Summary

- Every price move traces back to supply and demand — news moves prices only by changing how badly people want to buy or sell.
- The Federal Reserve sets a key interest rate. Cheap money tends to lift business and stocks; expensive money squeezes both, and makes safe interest-paying investments more tempting.
- CPI measures inflation; the jobs report measures employment. Both are monthly "report cards" for the economy, and traders read them mainly as clues about the Fed's next move.
- Earnings season, four times a year, is report card time for each company — and guidance, the company's own forecast, often moves the price more than the results.
- Company catalysts — FDA decisions, launches, lawsuits, deals — hit single stocks without warning.
- The S&P 500 is organized into 11 sectors; stocks in the same sector often move together, which matters for real diversification.
- The VIX measures how much traders are paying for protection — a plain gauge of fear and expected movement, not direction.
- Prices react to news versus expectations. Good news that was already priced in can still send a stock down.
- A weekly calendar check plus a five-minute morning skim covers the catalysts that matter — no drowning required.

Check Yourself

1. In one sentence, what actually makes a stock's price move?
2. Why can the whole stock market drop on a hint that the Fed will raise interest rates?
3. A company reports record profits, beating expectations — and its stock falls 7%. Give the most likely explanation.
4. What does a high VIX tell you, and what does it NOT tell you?
5. Name the two monthly government reports that move markets the most, and what each one measures.

Answers: 1) Prices move when the balance of buyers and sellers shifts — when more people want to buy than sell at the current price (or the reverse), driven by changing expectations about the future. 2) Higher rates make borrowing expensive, squeeze company profits and customer spending, and make safe interest-paying investments more attractive competition for stocks. 3) The great results were already priced in — the crowd expected even more, or the company's guidance for the future was weaker than hoped, so disappointed holders sold. 4) A high VIX says traders expect big price swings and are paying up for protection; it does not say which direction prices will move. 5) CPI, which measures inflation (rising prices on everyday goods and services), and the jobs report, which measures job growth and the unemployment rate.

> **RULE**
> Before any big report or earnings date, check the calendar and know what is already priced in — surprises move prices, and most "surprises" were on the schedule all along.



AA-11

OPTIONS
THE BASICS

Calls, puts, strikes, and premiums — Part 1 of the options course, with full worked examples.

Alpha Academy · Team Alpha Trading

Options A–Z, Part 1: The Basics

Options are the tool that confuses almost every new trader — and the tool that can empty a beginner's account faster than anything else if it is used before it is understood. This chapter fixes the first problem so you never suffer the second.

By the end of this chapter, you will know what an option is, how calls and puts work, what every number on an option means, what happens when time runs out, and how to read an option chain. We start from zero.

> **NOTE**
> This chapter is education only, not financial advice. Everything here teaches how options work — what you do with your own money is your decision, and a licensed financial professional can help you make it.

Start With the Core Idea: An Option Is a Contract, Not a Share

When you buy a **stock**, you buy a small piece of a company. You own something real, with no expiration date — you can hold it for fifty years.

An **option** is completely different. An option is a **contract** — a written agreement between two people — that gives one of them a *right* for a limited time. You do not own any part of the company. You own a deal, written in exact terms, with an end date.

Every option contract answers four questions before money changes hands:

- **Which stock?** (For example, Apple, ticker AAPL.)
- **What price?** A locked-in price, called the **strike price**.
- **Which direction?** The right to buy, or the right to sell.
- **By when?** An **expiration date** — the day the contract dies.

Here is the analogy. Imagine a house for sale at $300,000. You are not ready to buy today, but you think the neighborhood is about to get popular. So you pay the owner $5,000 for a signed agreement: *"You may buy this house for $300,000 any time in the next six months, even if the price goes up. The $5,000 is mine to keep no matter what."*

- If the house's market price jumps to $340,000, your agreement is gold: you buy at $300,000, a price nobody else can get.
- If the price falls to $270,000, you walk away — why buy at $300,000 when anyone can buy at $270,000? You lose only the $5,000.
- Either way, the $5,000 is gone. That was the cost of holding the price.

That is an option. The $5,000 is like the option's price (the **premium**). The $300,000 is the **strike price**. The six months is the time until **expiration**. And the big difference from buying the house: you controlled the deal for $5,000, never putting up $300,000.

> **SETUP**
> One standard stock option contract controls **100 shares** of stock. It matters for every price in this chapter.

Calls: The Right to Buy

A **call option** gives the buyer the **right to buy 100 shares of a stock at the strike price, at any time before the expiration date** — no matter how high the market price goes.

You would buy a call when you believe a stock is going **up**.

Worked example — buying a call.

- The stock **XYZ** trades at **$50** per share today.
- You buy **1 call contract** with a **strike price of $52** — the right to buy XYZ at $52.
- The **premium** (the option's price) is **$2.50**.
- Premiums are quoted *per share*, but a contract covers 100 shares, so your real cost is $2.50 × 100 = **$250**. That $250 leaves your account the moment you buy, and it is the most you can ever lose on this trade.

Now three futures:

Case 1 — right, and big. XYZ rises to **$60** by expiration. Your right to buy at $52 is worth $60 − $52 = $8 per share. $8 × 100 = **$800** of value. You paid $250, so your profit is $800 − $250 = **$550**.

Case 2 — right, but only a little. XYZ rises to **$53**. Your advantage is $1 per share, or **$100**. You paid $250, so you *lose* $150 — even though the stock went up! The stock must go up *enough*, not just up.

Case 3 — wrong. XYZ stays at $50, or falls. A right to buy at $52 is useless when anyone can buy cheaper in the open market. The contract expires worth **$0**, and you lose the full $250.

Case 2's breaking point has a name: the **breakeven price**, where the trade makes exactly zero. For a call: breakeven = strike + premium = $52 + $2.50 = **$54.50**. At expiration, XYZ must be above $54.50 for this call to have made money.

> **RULE**
> For a bought call — breakeven = strike price + premium. For a bought put — breakeven = strike price − premium. If the stock is not past your breakeven at expiration, the trade lost money.

Puts: The Right to Sell

A **put option** gives the buyer the **right to sell 100 shares of a stock at the strike price, at any time before the expiration date** — no matter how low the market price falls.

You would buy a put when you believe a stock is going **down**.

Worked example — buying a put.

- The stock **ABC** trades at **$80** per share.
- You buy **1 put contract** with a **strike price of $78** — the right to sell ABC at $78.
- The premium is **$2.00**, so your cost is $2.00 × 100 = **$200** — again, the most you can lose.

Case 1 — right. ABC falls to **$70**. Your right to sell at $78 is worth $78 − $70 = $8 per share = **$800**. Profit: $800 − $200 = **$600**.

Case 2 — barely right. ABC falls to **$77**. Your advantage is $1 per share = **$100**. You paid $200, so you lose $100. Breakeven for this put is $78 − $2.00 = **$76**: ABC must fall below $76 by expiration for the trade to

profit.

Case 3 — wrong. ABC rises to $85. A right to sell at $78 is worthless when the market happily pays $85. The put expires at $0 and you lose the $200.

Buyer vs. Seller: Two Sides of Every Contract

Every option trade has two people. The **buyer** pays the premium and receives the right. The **seller** — also called the **writer** — receives the premium and accepts an **obligation**. The two sides have opposite risk profiles:

- **The buyer** can lose only the premium paid — never more. Their possible gain is large. But they must be right on direction *and* timing — the contract dies at expiration.
- **The seller** collects money up front and profits when nothing dramatic happens — if the contract expires worthless, the seller keeps the whole premium. But their risk is large: a sold call obligates them to deliver shares at the strike no matter how high the stock flies; a sold put obligates them to buy at the strike even if the stock collapses.

Think of it like insurance. A policy buyer pays a modest premium and is protected against disaster. The insurance company collects premiums from many people and does fine — until a disaster hits and it pays out far more than it collected. Option sellers sit in that chair: steady small wins, with rare but heavy losses if they are careless.

> **RISK**
> Selling options without owning the stock (or a partner option to limit the loss) can create losses far bigger than the premium collected — for a sold call, the theoretical loss has no ceiling, because a stock can rise without limit. Beginners should buy options first; selling is an advanced topic.

The Vocabulary on Every Option: Strike, Expiration, and Moneyness

You already know **strike price** and **expiration date**. Many stocks offer contracts expiring every week ("weeklies"), plus monthly expirations further out. The further away the expiration, the more the option usually costs — more time means more chance for the stock to move.

Traders describe an option by how its strike compares to the stock's current price — its **moneyness**. There are three states:

Term	For a call	For a put	Plain meaning
---	---	---	---
In the money (ITM)	Strike is *below* the stock price	Strike is *above* the stock price	The right is already worth something today
At the money (ATM)	Strike is *about equal to* the stock price	Strike is *about equal to* the stock price	The strike sits right at today's price
Out of the money (OTM)	Strike is *above* the stock price	Strike is *below* the stock price	The right is worthless if used today — it needs the stock to move

Check this against the examples. The XYZ call had a $52 strike with the stock at $50 — strike *above* the stock price, so that call was **out of the money** when purchased. Beginners often buy out-of-the-money options because they are cheaper — but cheap also means the stock has further to travel before the option gains real value.

What an Option's Price Is Made Of: Intrinsic and Extrinsic Value

Every option's premium is built from two ingredients.

Intrinsic value is what the option would be worth if it expired *right now* — the built-in advantage of its strike over the market price.

- The XYZ call (strike $52) with the stock at $60 has intrinsic value of $60 − $52 = **$8 per share**.
- At or below $52, that call's intrinsic value is **$0** — out-of-the-money options always have zero intrinsic value.

Extrinsic value (also called **time value**) is everything else in the price — what buyers pay for the *possibility* that the stock moves before expiration. Time is opportunity: a contract with three months left has far more chances to become profitable than one with three hours left.

premium = intrinsic value + extrinsic value.

Watch it work. XYZ is at $60, and the $52 call trades at $8.60. Intrinsic value is $8.00, so extrinsic value is $8.60 − $8.00 = **$0.60** — buyers pay 60 cents per share for the remaining time. As expiration approaches, extrinsic value melts away; at expiration it is always exactly $0, and an option is worth only its intrinsic value. This melting is the central fact of options, and the next chapter is devoted to measuring it.

What Happens at Expiration

At expiration, every option is settled by one rule: **an option is worth the distance the stock finished past the strike, times $100 per contract — or zero if it did not finish past the strike.**

- A **call** finishes in the money if the stock closes *above* the strike. Final value = (stock price − strike) × 100. Stock at $60, strike $52 → **$800 per contract**.
- A **put** finishes in the money if the stock closes *below* the strike. Final value = (strike − stock price) × 100. Stock at $70, strike $78 → **$800 per contract**.
- An option that finishes out of the money is worth **$0** — the premium is gone.

Most traders do not wait for expiration. An option can be **sold back into the market** any time before expiration, at its current price — still including whatever extrinsic value remains. That is how most option trades are actually closed. Waiting means accepting the all-or-nothing settlement above.

Exercise and Assignment: The Two Ends of the Right

Exercise is what the buyer does when they *use* their right: exercising a call means actually buying the 100 shares at the strike; exercising a put means actually selling 100 shares at the strike.

Assignment is the other end: when the buyer exercises, the seller is *assigned* — chosen by the system — and must honor the deal, delivering the shares (call) or buying them (put) at the strike price.

Almost no beginner needs to exercise early — selling the option usually captures more value, because you keep the extrinsic value instead of throwing it away. But exercise and assignment explain *why the seller's risk is real*: the buyer can pull the trigger whenever the contract allows.

American vs. European Style: When the Right Can Be Used

Options come in two styles:

- **American-style** options can be exercised **at any time** before expiration. Nearly all options on individual US stocks and ETFs are American-style. (An **ETF** is a fund that trades like a stock, holding a basket of investments.)
- **European-style** options can be exercised **only at expiration**. Most **index options** — options on an index like the S&P 500 (ticker **SPX**) — are European-style. An **index** is a number tracking a group of stocks; it is not a company you can own directly.

Index options are also **cash-settled**: there are no shares of an index to deliver, so at expiration the value is simply paid in cash — the distance past the strike, times the contract's dollar multiplier. With a stock option exercised into shares, real stock changes hands instead.

Why People Buy Options

With all these warnings, why does anyone touch options? Three honest reasons:

- **Leverage.** A small amount of money controls 100 shares. In the XYZ example, $250 controlled a position that gained $550 on a $10 stock move; buying 100 shares outright would have cost $5,000. Leverage magnifies percentages — in *both* directions.
- **Defined risk.** A buyer's maximum loss is known on day one: the premium. No margin calls, no losing more than you paid.
- **Protection (hedging).** A **hedge** is a position that reduces the risk of another position — like insurance. Own 100 shares of ABC at $80 and fear a drop? One $78 put (cost: $200 in our example) guarantees you can sell at $78 no matter how far ABC falls before expiration. Many investors buy puts exactly the way they buy homeowners insurance: hoping to never need them.

Why Options Are Dangerous for Beginners

> **RISK**
> A bought stock can fall and later recover. A bought option can be *right about the direction* and still lose 100% of its cost, if the move comes too late or too small. Every option you buy can expire completely worthless. Never buy options with money you cannot afford to lose entirely.

The four dangers, stated plainly:

- **The clock.** Your deadline is fixed, and stocks do not care about your expiration date.
- **The double hurdle.** You must be right on direction *and* size of move. A small move in your favor can still lose money (remember XYZ at $53).
- **The melt.** Extrinsic value drains daily, faster as expiration nears. You hold a melting ice cube.
- **The temptation of cheap.** Very cheap options are cheap because the market believes the needed move is unlikely. Buying them is closer to a lottery ticket than an investment.

None of this means "never trade options." It means learn the mechanics first — which is what you are doing — start small, and respect the clock.

Reading an Option Chain

Options are displayed in a table called an **option chain** — one row per strike price, usually calls on the left and puts on the right. What the columns mean:

- **Strike** — the strike price for that row.
- **Bid** — the highest price a buyer currently offers. Sell right now at the market, and this is roughly what you receive.
- **Ask** — the lowest price a seller currently accepts. Buy right now at the market, and this is roughly what you pay.
- **Last** — the price of the most recent trade. It can be stale (old) on quiet options — trust bid and ask more.
- **Volume** — contracts traded today. High volume = active, easier trading.
- **Open interest** — contracts that exist right now, not yet closed. High open interest generally means an active, liquid (easy to trade) option.
- **Implied volatility (IV)** — a percentage expressing how much movement the market expects, baked into the price. High IV means expensive options. The next chapter explains this in depth.

The gap between bid and ask is called the **spread**. On popular stocks, a few cents; on quiet ones, a dollar or more. A wide spread is a hidden cost: you overpay entering and get underpaid leaving. Favor options with high volume, high open interest, and tight spreads.

> **TIP**
> Place option orders with a **limit order** — an order setting the maximum you will pay (or minimum you will accept) — not a market order that takes whatever price appears. Quiet options can fill at terrible prices.

Common Beginner Mistakes

- **Buying an option without knowing its expiration date** — then being surprised when it expires.
- **Thinking a $0.50 premium is "cheap"** — it is $50 per contract, and cheap options are priced low because the required move is unlikely.
- **Forgetting the × 100.** A $2.50 premium is $250. Size every trade in real dollars.
- **Buying far out-of-the-money options expiring in days**, hoping for a miracle — the classic way beginners donate money to the market.
- **Ignoring the spread.** Paying a $2.00 ask when the bid is $1.20 starts the trade deep underwater.
- **Holding to expiration by accident.** Know whether you plan to sell the option or let it settle — and what settlement means for your account.
- **Risking rent money on leverage.** A capped loss per trade does not make a string of total losses painless.

Chapter Summary

- An option is a **contract**, not a share: a right, with a strike price and an expiration date, controlling 100 shares.
- A **call** is the right to **buy** at the strike; a **put** is the right to **sell** at the strike.

- Premium is quoted per share; multiply by 100 for the true cost per contract — also the buyer's maximum loss.
- Call breakeven = strike + premium. Put breakeven = strike − premium.
- **Buyers** get rights with limited risk; **sellers (writers)** get the premium and accept obligations with large risk.
- Options are **in, at, or out of the money** based on strike versus the stock's price.
- Premium = **intrinsic value** (built-in advantage, if any) + **extrinsic value** (payment for time and possibility) — and extrinsic value melts to zero at expiration.
- At expiration an option pays the distance past the strike × $100 — or nothing.
- **Exercise** is the buyer using the right; **assignment** is the seller made to honor it. American style: exercise any time. European style: expiration only, and index options settle in cash.

Check Yourself

1. A call has a strike of $40 and a premium of $1.50. What does one contract cost, and what is the breakeven at expiration?
2. A stock trades at $95. Is a $100 call in, at, or out of the money? What about a $100 put?
3. A put has a strike of $60 and the stock finishes expiration day at $52. What is one contract worth?
4. Who has more risk — the buyer or the seller — and why?
5. An option's premium is $3.20 and its intrinsic value is $2.00. How much extrinsic value are you paying, per share and per contract?

Answers: 1) $1.50 × 100 = $150 per contract; breakeven = $40 + $1.50 = $41.50. 2) The $100 call is out of the money (strike above the stock price); the $100 put is in the money (selling at $100 already has value when the stock is $95). 3) ($60 − $52) × 100 = $800 per contract. 4) The seller — the buyer's loss is capped at the premium, while the seller must honor the contract no matter how far the stock moves. 5) $3.20 − $2.00 = $1.20 per share = $120 per contract — the price of time and possibility, and the part that melts away by expiration.

> **RULE**
> Before buying any option, say this out loud: the stock, the strike, the expiration, the full dollar cost, and the breakeven. If you cannot, you are not ready to place the trade.



AA-12

OPTIONS
PRICING & GREEKS

Implied volatility and the five Greeks — Part 2 of the options course.

Alpha Academy · Team Alpha Trading

Options A–Z, Part 2: Pricing & the Greeks

In Part 1 you learned what an option is. This chapter answers the next question every beginner asks: *why did my option's price move — and why did it sometimes move the "wrong" way?*

Here is the puzzle. You buy a call because you think a stock will rise. The stock rises — and your option barely gains, or even loses money. Or the stock sits perfectly still, and your option quietly bleeds value every single day. Nothing is broken. Your option's price is being pushed by several forces at once, and the stock's price is only one of them.

By the end of this chapter you will know the five ingredients that set an option's price, what **implied volatility** really means, and how to read the five measurements traders call **the Greeks** — the dashboard gauges that tell you, in advance, roughly how your option will behave. This is the chapter that turns option buying from guessing into planning.

> **NOTE**
> This chapter is education only, not financial advice. The Greeks are estimates based on pricing models, not guarantees — real prices can and do move differently. Use them to understand risk, not to predict the future.

What Sets an Option's Price: Five Ingredients

Recall from Part 1: **premium = intrinsic value + extrinsic value**. Intrinsic value is the built-in advantage of the strike. Extrinsic value is the payment for time and possibility. Five ingredients determine the whole premium:

- **The stock's price.** The big one. As a stock rises, calls gain intrinsic value (or get closer to gaining it) and puts lose it. This is the only ingredient most beginners watch — and the source of the puzzle above.
- **The strike price.** A call with a lower strike is a better deal for the buyer, so it costs more. A $45 call on a $50 stock already holds $5 of intrinsic value; a $55 call on the same stock holds none, so it is cheaper — it is buying only possibility.
- **Time until expiration.** More time = more chances for the stock to move = more extrinsic value. A contract with three months left costs more than the same contract with three days left. This ingredient only ever moves in one direction: down, as the clock runs.
- **Volatility.** How much the stock's price swings around. A wild, jumpy stock can travel a long way before expiration, so its options cost more. A sleepy stock that barely moves has cheap options. This ingredient deserves its own section — see below.
- **Interest rates.** Higher interest rates slightly raise call prices and slightly lower put prices. For options expiring in days or weeks, the effect is tiny — most beginners can safely be aware of it and move on. (Its Greek, rho, appears at the end of this chapter.)

Everything in this chapter flows from these five. The Greeks are simply a way to measure, one ingredient at a time: *if this one thing changes, what happens to my option's price?*

Implied Volatility: The Market's Price Tag for Fear and Excitement

Volatility means how much a price swings. A stock that moves 3% on a normal day is more volatile than one that moves 0.3%.

Implied volatility (IV) is a percentage shown on every option chain. It is not a measurement of the past. It is the market's *expectation* of future swings, worked backward out of the option's price. Read it as a price tag: **IV is how much fear or excitement is currently baked into option prices.** When traders expect drama — an earnings report (a company's scheduled financial announcement), a court ruling, a big economic release — they bid options up, and IV rises. When calm returns, IV falls, and options get cheaper even if the stock never moved.

Two practical facts follow:

- **Same option, different IV, different price.** A call that costs $2.00 when IV is low might cost $3.50 when IV is high — same stock, same strike, same expiration. Buyers who purchase during high IV are paying a drama surcharge.
- **IV is about size of move, not direction.** High IV means the market expects a big swing *somewhere* — up or down. It does not tell you which way.

IV Crush: The Trap After Earnings

The most painful version of this lesson is called **IV crush**, and it strikes right after earnings.

Worked example. A stock trades at **$100**. Tonight it reports earnings, and traders expect a big reaction, so IV is very high. You buy a call with a **$100 strike** expiring in two days. Because of the expected drama, the premium is **$3.50** — all extrinsic value, since the strike equals the stock price.

The report is good. The stock rises to **$102**. You were right! Now look at your call:

- Intrinsic value: $102 − $100 = **$2.00**.
- Extrinsic value: the drama is over, IV has collapsed, and only two days remain — say **$0.30**.
- Your option is now worth about **$2.30**. You paid $3.50.

The stock rose $2 and you *lost* $1.20 per share — $120 per contract. The earnings move you paid for was smaller than the move the price had baked in, and the fear surcharge evaporated the moment the news landed.

> **RISK**
> Buying options right before earnings means paying the highest IV of the year for them. The stock must move *more than the market already expects* — not just in your direction — or IV crush can hand you a loss on a correct guess.

Meet the Greeks

The Greeks are five measurements, each named with a Greek letter, that describe how an option's price responds to one ingredient. Your broker's option chain shows them next to every contract. Think of them as the gauges on a car dashboard: you do not need to build the engine, but you must be able to read the speedometer and the fuel gauge before you drive.

Delta: The Speedometer

Delta measures how much an option's price changes when the stock moves $1.

- A call with a delta of **0.50** gains roughly **$0.50 per share** when the stock rises $1 — about **$50 per contract** — and loses roughly the same when the stock falls $1.

- A call with a delta of **0.20** moves only about $0.20 per $1 — slower, cheaper, and further from the action.
- Call deltas run from 0 to +1. Put deltas are negative: a put with a delta of **−0.40** *gains* about $0.40 per share when the stock *falls* $1.

Delta follows moneyness. Deep in-the-money calls have deltas near 1 — they move almost dollar-for-dollar with the stock. Far out-of-the-money calls have deltas near 0 — the stock can move and they barely respond. At-the-money calls sit near 0.50.

Delta also gives a rough probability hint: traders use it as a quick **approximation** of the chance an option expires in the money. A 0.30-delta call is often read as "about a 30% chance." Treat this as a ballpark, not an exact odds calculation — it is a shortcut, labeled honestly.

Theta: The Daily Rent

Theta measures how much value an option loses with the passing of **one day**, everything else unchanged. It is quoted as a negative number for buyers.

- An option with theta of **−0.05** loses about **$0.05 per share per day — $5 per contract, every day**, weekends included, whether the stock moves or not.

This is the rent a buyer pays for holding the contract, and the landlord always collects. Worse, the rent rises as the deadline approaches: an option might lose a few cents a day with two months left, then dimes a day in its final week. Theta decay **accelerates into expiration** — the melting ice cube from Part 1 melts fastest at the end. This is why an option can lose value on a day when "nothing happened." Something did happen: a day of your contract's life ended.

For the seller on the other side, theta is income — time passing pays them. That is the deep reason option selling exists.

Gamma: Delta's Change

Gamma measures how much **delta itself changes** when the stock moves $1.

- A call has delta 0.50 and gamma of **0.08**. The stock rises $1: delta becomes about 0.58, so the *next* $1 move is worth more than the last. The stock falls $1: delta drops to about 0.42, and the option slows down.

Gamma is the acceleration to delta's speed. It is largest for at-the-money options close to expiration — exactly where beginners like to trade cheap, short-dated contracts. There, delta can swing wildly on small stock moves, which is why options in their final days can gain 80% or lose 60% in an hour. Gamma is why expiration-week trading feels like a different, wilder game.

Vega: The Volatility Gauge

Vega measures how much an option's price changes when **implied volatility moves by 1 percentage point**.

- An option with vega of **0.12** gains about **$0.12 per share ($12 per contract)** if IV rises 1 point, and loses the same if IV falls 1 point — with the stock completely still.

Vega is IV crush, quantified: the earnings example above was vega taking money from the buyer when IV collapsed. Vega is biggest for options with lots of time left and strikes near the stock price. It shrinks toward zero at expiration, when there is no time left for expectations to matter.

Rho: The Small Print

Rho measures sensitivity to **interest rates**: how much the price changes if rates move 1 percentage point. For options expiring in days or weeks, rho is so small you can ignore it. It matters mainly for options expiring a year or more out, where higher rates modestly favor calls over puts. Know it exists; spend your attention on the other four.

The Five Greeks at a Glance

Greek	It measures...	Plain meaning for a buyer
---	---	---
Delta	Price change per $1 stock move	Your speed — and a rough hint of your odds
Theta	Value lost per day	The rent you pay for holding the contract
Gamma	Change in delta per $1 stock move	How fast your speed itself is changing
Vega	Price change per 1-point move in IV	Your exposure to fear getting cheaper or pricier
Rho	Price change per 1-point move in interest rates	Mostly ignorable for short-term trades

How a Beginner Actually Uses the Greeks

You do not need all five, all the time. Two checks before every option purchase will prevent most beginner disasters:

Check delta — are you buying speed or a lottery ticket? A call with delta 0.60 participates in most of the stock's move: if the stock rises $2, your option gains roughly $1.20 per share. A call with delta 0.10 is a lottery ticket — the stock must move a *long* way before the option responds meaningfully. Neither is "wrong," but know which one you are holding, and do not pay real money for lottery-ticket expectations.

Check theta — what does one quiet day cost you? If theta is −0.09, every day the stock goes nowhere costs you $9 per contract. On a $150 option, that is 6% of your money per day, gone even if you are eventually right. Ask: *can my idea play out before the rent eats the position?* If the honest answer is no, buy more time (a later expiration) or do not take the trade.

Then combine them with the two lessons of this chapter. Before earnings, check IV: if it is sky-high, understand you are paying the drama surcharge and IV crush is waiting on the other side. And never forget that all extrinsic value — everything theta and vega are measuring — goes to exactly zero at expiration.

> **RULE**
> Do not hold cheap, far out-of-the-money options into expiration. They combine the worst of every Greek: tiny delta, brutal theta, and value that almost always finishes at zero. If you buy a short-dated option, plan your exit — a profit target and a sell-by date — before you enter.

Common Beginner Mistakes

- **Watching only the stock.** Your option answers to five ingredients, not one. A flat stock plus passing days is a losing option.
- **Buying before earnings without checking IV** — then meeting IV crush while being "right."
- **Ignoring theta on Friday.** Two weekend days of decay arrive in your account on Monday whether the market opened or not.
- **Buying 0.10-delta options as "cheap exposure."** Cheap because the market gives them roughly a one-in-ten ballpark chance — price and probability agree.
- **Holding a winning option into its final days** without a plan, while theta and gamma turn a calm trade violent.
- **Treating the Greeks as promises.** They are model estimates that update constantly — guides for thinking, not guarantees.

Chapter Summary

- An option's price is set by five ingredients: the stock's price, the strike, time left, volatility, and (barely) interest rates.
- **Implied volatility** is the market's expectation of future swings, expressed as a percentage and baked into prices — a price tag for fear and excitement.
- **IV crush**: after a big expected event like earnings, IV collapses, and options can lose value even when the stock moves the buyer's way.
- **Delta** is the speedometer: price change per $1 stock move, and a rough, ballpark hint of the odds of expiring in the money.
- **Theta** is the daily rent buyers pay; it is always negative for buyers and accelerates as expiration approaches.
- **Gamma** is delta's acceleration — biggest near expiration, which is why final-days options swing violently.
- **Vega** measures exposure to IV changes; **rho** measures interest-rate exposure and barely matters for short-term options.

Check Yourself

1. A call has a delta of 0.60. The stock rises $2. Roughly how much does the option gain per share, and per contract?
2. Your option has theta of −0.07. The stock does not move for three days. Roughly how much value does one contract lose?
3. Before earnings, IV is very high. The report is good and the stock rises — yet your call loses money. What happened?
4. An option has vega of 0.15. Implied volatility falls 3 points, and the stock is unchanged. What happens to the option's price, per contract?
5. Which Greek explains why options become wild and swing hugely in their final days before expiration?

Answers: 1) About 0.60 × $2 = $1.20 per share, or $120 per contract. 2) About 0.07 × 3 = $0.21 per share, or $21 per contract — lost to time alone. 3) IV crush: the pre-earnings premium carried a large fear surcharge; once the news landed, IV collapsed and the extrinsic value you paid for evaporated faster than the stock's rise could replace it. 4) It falls by about 0.15 × 3 = $0.45 per share, or $45 per contract — a pure vega loss with the stock sitting still. 5) Gamma: near expiration, delta changes extremely fast as the stock moves, so the option's speed — and price — whips around.

> **RULE**
> Before you buy, read two gauges out loud: delta (am I buying speed or a lottery ticket?) and theta (what does each quiet day cost me?). If you cannot answer both, the trade is not ready — and neither are you.



AA-13

OPTIONS STRATEGIES

From covered calls to spreads and iron condors — Part 3, with numbers on every strategy.

Alpha Academy · Team Alpha Trading

Options Part 3: Strategies, From Simple to Spreads

In Parts 1 and 2 of this options series, you learned what calls and puts are, how premiums are priced, and how time and volatility move an option's value. That was learning the tools. This part is about using them: the standard ways traders combine buying, selling, and owning stock into complete plans called **strategies**.

A strategy is a plan made before you trade. It says what you buy or sell, what you expect to happen, the most you can make, and the most you can lose. That last number matters most. Every strategy here states its maximum loss in plain dollars, because a trader who knows the worst case in advance can survive being wrong.

We build in order, simplest first, each strategy adding one small idea to the one before it. By the end, you will be able to take apart any common options strategy piece by piece.

> **NOTE**
> This chapter is education only, not financial advice. Some strategies involve selling options. Selling options can create losses larger than the money you collect, and your broker may require experience approval and a margin account first. Learn the math here; trade live only when you fully understand the worst case.

A Quick Refresher Before We Start

Every example uses the same made-up company, **ABC**, trading at **$100 per share**.

- A **call** gives the buyer the right to buy 100 shares at a set price, the **strike price**, before a set date, the **expiration date**. A **put** gives the right to sell 100 shares at the strike.
- The **premium** is the option's price, quoted per share. One contract covers 100 shares, so a $2.50 premium costs $2.50 × 100 = **$250 per contract**.
- An option is **in the money** when it has real value at expiration (a call whose strike is below the stock price, a put whose strike is above it) and **out of the money** when it does not.
- **Theta** is time decay: the slice of value that melts away each day as expiration approaches. Buyers fight theta. Sellers collect it.

> **RULE**
> Before entering any options trade, write down three numbers: what you pay or collect, the most you can lose, and your breakeven price. If you cannot write all three, you do not understand the trade yet.

Strategy 1: Buying a Call

The simplest bullish trade in options. **Bullish** means you expect the price to rise.

Instead of buying 100 shares of ABC for $10,000, you buy one call with a **$105 strike**, expiring in about a month, for **$2.50** — a cost of **$250**.

- ABC rises to $115. The call is worth $115 − $105 = $10 per share, or $1,000. Profit: $1,000 − $250 = **$750**.

- ABC reaches $107.50. The call is worth exactly what you paid. Breakeven for a call = strike + premium = $105 + $2.50 = **$107.50**.
- ABC stays at $100 or falls. The call expires worthless. You lose the full **$250** — and not one cent more.

Your maximum loss is locked at the premium from the moment you buy. The catch is time: ABC must rise far enough, fast enough — a move to $106 after expiration pays you nothing.

Risk in one line: You can lose the entire $250 premium if ABC does not rise above $107.50 before expiration.

Strategy 2: Buying a Put

The simplest bearish trade. **Bearish** means you expect the price to fall.

You buy one put with a **$95 strike**, expiring in about a month, for **$2.00** — a cost of **$200**.

- ABC falls to $85. The put is worth $95 − $85 = $10 per share, or $1,000. Profit: $1,000 − $200 = **$800**.
- ABC falls to $93. The put is worth exactly what you paid. Breakeven for a put = strike − premium = $95 − $2.00 = **$93**.
- ABC stays at $100 or rises. The put expires worthless. You lose **$200**, and no more.

Buying a put is also how a stock owner buys protection — that idea returns in Strategy 5, where the put becomes insurance instead of a bet.

Risk in one line: You can lose the entire $200 premium if ABC does not fall below $93 before expiration.

Strategy 3: The Covered Call

Now we add stock ownership. A **covered call** means you own 100 shares and sell one call against them. "Covered" means the shares sit in your account, ready to be delivered if needed — which makes this the most conservative selling strategy.

You own 100 shares of ABC bought at $100, a position worth **$10,000**. You sell one call with a **$110 strike**, expiring in about a month, for **$1.50**. **$150 lands in your account immediately.**

- ABC ends at $105. The call expires worthless. You keep the $150 and the shares — a trade many investors repeat monthly for income.
- ABC rockets to $120. The buyer exercises the call and buys your shares at $110. You receive $11,000 plus the $150 premium = $11,150 — but the shares were worth $12,000. You gave up $850 of the rise. Not a loss, but a ceiling you agreed to in advance.
- ABC falls to $85. Your shares lose $1,500 of value. The $150 premium softens the blow slightly — and that is all it does.

A covered call trades away big upside for steady small income. It does **not** protect you from a crash.

> **RISK**
> A covered call is not insurance. If the stock collapses, you own the collapse. The premium is a cushion, not a floor.

Risk in one line: Your shares can still fall almost the full amount; your real trade-off is capping your gains at the strike price.

Strategy 4: The Cash-Secured Put

A **cash-secured put** means you sell a put and keep enough cash in the account to buy the shares if you are assigned. **Assignment** means the put buyer uses their right, and you must buy 100 shares at the strike price.

Think of it as a standing offer: "I will happily buy ABC at $90 — and until someone takes my offer, I keep a fee."

You sell one put with a **$90 strike** for **$1.80**, collecting **$180**, and set aside $9,000 in cash — enough to buy 100 shares at $90.

- ABC stays above $90. The put expires worthless. You keep the $180 and your cash is free again — a 2% return on the cash set aside ($180 ÷ $9,000).
- ABC falls to $80. You are assigned: you buy 100 shares at $90 for stock now trading at $80. Because you collected $180 first, your true cost is $90 − $1.80 = **$88.20 per share**, and you are down $820 on paper.

That second ending is the whole strategy: only sell a cash-secured put on a stock you genuinely want to own at the strike. If owning ABC at $90 would upset you, do not sell the $90 put.

> **RISK**
> If the stock keeps falling after assignment — to $60, to $40 — those losses are yours. The premium does not stop them.

Risk in one line: You can be forced to buy a falling stock at the strike price, and it can keep falling after that.

Strategy 5: The Protective Put

A **protective put** means you own 100 shares and buy one put on the same stock. It is the options version of an insurance policy, and the analogy holds almost perfectly.

You own 100 shares of ABC at $100, and you are worried about an **earnings report** — the company's scheduled quarterly update on its profits, which often moves the stock sharply. You buy one put with a **$95 strike**, expiring just after the report, for **$2.00**. The $200 is your insurance premium.

- ABC crashes to $70 on bad news. Your shares lost $3,000 of value, but the put is worth $95 − $70 = $25 per share, or $2,500. You can exit at an effective $95 per share. Total loss: about ($100 − $95) × 100 + $200 premium = **$700**, instead of an open-ended fall.
- ABC rises to $110. Your shares gain $1,000. The put expires worthless and the $200 is gone. Net result: up $800, and you were protected the whole time.

That is exactly how house insurance feels: most periods nothing burns down, and the premium is simply gone. You are not buying a profit — you are buying a floor.

Risk in one line: Your worst case is known in advance — you can lose down to the strike, plus the premium, and no further.

Strategy 6: Vertical Spreads — The Debit Spread

A **spread** combines two or more options in one trade. A **vertical spread** pairs two options of the same type (both calls or both puts), same expiration, different strikes.

Why spread at all? A lone bought option costs full price and fights theta alone. A spread sells a second option to pay for part of the first, and in exchange your profit gets a ceiling — while both risk and reward become **defined**: known to the dollar on day one.

Bull Call Spread (Debit)

You are bullish but want a cheaper, sturdier trade than a lone call. In one trade you:

- Buy the **$100 call** for **$3.00**
- Sell the **$110 call** for **$1.20**

Your **net debit** — the total you pay — is $3.00 − $1.20 = **$1.80**, or $180.

- **Maximum loss = the debit = $180.** If ABC stays at or below $100, both calls expire worthless.
- **Maximum profit = width − debit = ($110 − $100) − $1.80 = $8.20, or $820** — reached if ABC is at $110 or higher at expiration.
- **Breakeven = lower strike + net debit = $100 + $1.80 = $101.80.**

Compare Strategy 1: the lone call needed ABC above $107.50 to make anything. This spread breaks even at $101.80, costs less, and decays more slowly — but it can never make more than $820.

Bear Put Spread (Debit)

The mirror image, for a bearish view:

- Buy the **$100 put** for **$2.80**
- Sell the **$90 put** for **$1.00**
- Net debit = $2.80 − $1.00 = **$1.80**, or $180
- **Maximum loss = $180** if ABC stays at or above $100.
- **Maximum profit = width − debit = $10 − $1.80 = $8.20, or $820**, if ABC falls to $90 or below.
- **Breakeven = higher strike − net debit = $100 − $1.80 = $98.20.**

> **TIP**
> Debit spreads are the beginner-friendly way to bet on direction: smaller cost, a breakeven that is closer, slower time decay, and a worst case you know before you enter.

Risk in one line: A debit spread can lose only what you paid for it — but it loses all of it if the stock does not move your way.

Strategy 7: Credit Spreads — Paid Up Front, Capped Risk

A **credit spread** flips the flow of money. You collect a premium up front — a **credit** — and profit if the stock stays away from the option you sold. The option you buy, further away, exists purely to cap your loss.

> **RISK**
> Read this section slowly. Credit spreads feel safe because money arrives on day one. That money is not profit yet — it is a deposit against a possible loss. Your maximum loss is always larger than the credit you collect, sometimes much larger.

Bull Put Spread (Credit)

You believe ABC will stay above $95. You are bullish, or at least not bearish.

- Sell the **$95 put** for **$1.60**
- Buy the **$90 put** for **$0.60**
- Net credit = $1.60 − $0.60 = **$1.00**, so **$100 is paid into your account**
- **Maximum profit = the credit = $100.** If ABC stays at or above $95, both puts expire worthless and you keep every cent.
- **Maximum loss = width − credit = ($95 − $90) − $1.00 = $4.00, or $400.** If ABC falls to $90 or below, the spread settles at its full $5 width against you: $500 − $100 credit = $400.
- **Breakeven = $95 − $1.00 = $94.**

Risking $400 to make $100 sounds backwards until you see the point: ABC only has to avoid falling more than 6% before expiration. Credit spreads are high-probability, small-win, defined-loss trades — the danger is sizing by the income and forgetting the $400 side exists.

Bear Call Spread (Credit)

The mirror image, for a bearish or "not bullish" view:

- Sell the **$105 call** for **$1.50**
- Buy the **$110 call** for **$0.50**
- Net credit = **$1.00** ($100 collected)
- **Maximum profit = $100** if ABC stays at or below $105.
- **Maximum loss = $5 width − $1.00 credit = $400** if ABC rises to $110 or above.
- **Breakeven = $105 + $1.00 = $106.**

Risk in one line: You keep a small credit if the stock behaves, and you can lose width − credit — here $400 — if it does not.

Strategy 8: The Iron Condor — Two Credit Spreads, One Range

An **iron condor** is not a new animal. It is the bull put spread and the bear call spread from Strategy 7, placed on the same stock, with the same expiration.

The bet, in plain words: "ABC will stay inside a range. It will not fall far, and it will not rise far, before expiration."

ABC is at $100. You place both spreads:

- Sell the **$95 put**, buy the **$90 put** (the bull put spread below the price)
- Sell the **$105 call**, buy the **$110 call** (the bear call spread above the price)
- Total credit collected = **$1.80**, or $180
- ABC expires anywhere between $95 and $105. All four options expire worthless and you keep the full **$180** — the condor's home turf is a quiet, range-bound stock.
- ABC falls to $90 or below, or rises to $110 or above. One side loses its full width (the stock cannot finish in both places). Maximum loss = $5 width − $1.80 credit = **$3.20, or $320**.

- Breakevens: **$93.20** below ($95 − $1.80) and **$106.80** above ($105 + $1.80). Between them, you make at least something.

Time decay works for the condor every day the stock sits still. Its trap: a calm-looking stock can gap violently on news, and many small wins can be handed back in one bad week if you sized too big.

Risk in one line: You profit if the stock stays in the range; your loss is capped at width − credit ($320 here) if it breaks out either way.

Strategy 9: Straddles and Strangles — Betting on a Big Move

Sometimes you are sure a stock will move a lot, but you honestly do not know which way — the night before an earnings report is the classic case. So you buy both sides at once.

A **straddle** is a call and a put bought at the **same strike**, usually the strike closest to the current price (called **at the money**). On ABC at $100:

- Buy the **$100 call** for **$2.80**
- Buy the **$100 put** for **$2.70**
- Total cost = **$5.50**, or $550

To break even, ABC must move more than $5.50 by expiration — above **$105.50** or below **$94.50**. If it lands near $100, both options expire worthless and you lose the whole $550, even though you were "right" that something could happen.

A **strangle** is the cheaper cousin: an out-of-the-money call plus an out-of-the-money put. Buy the **$105 call** for $1.40 and the **$95 put** for $1.30 — total **$2.70** ($270). It costs less, but ABC must travel further to pay you: above **$107.70** or below **$92.30** just to break even.

The IV Crush Warning

IV is **implied volatility**: how much movement the options market is pricing in. Before a big announcement, IV is high and options are expensive — you pay for a move the whole market already expects. The moment the news prints, the uncertainty is gone and IV collapses: **IV crush**. ABC can jump 4% in your favor and your straddle can still lose money, because the options deflated faster than the move paid you.

> **RISK**
> Buying a straddle or strangle into a major announcement means paying the highest prices of the year for options that deflate the instant the news is out — win, lose, or draw. Being right about direction is not enough. The move must be bigger than the large move already priced in.

Risk in one line: Your maximum loss is the premium paid ($550 or $270 here), and you can lose all of it even when the stock moves — if it does not move far enough, or IV collapses.

Defined Risk vs. Undefined Risk

Every strategy above belongs to one of two families, and knowing the family is a survival skill.

Defined risk means the maximum loss is known to the dollar before you enter, and no market move can make it worse. **Undefined risk** — sometimes called naked risk — means no built-in limit: losses keep growing as the stock moves against you.

Strategy	Family	Maximum loss
---	---	---
Buying a call or a put	Defined	The premium you paid
Vertical debit spread	Defined	The debit you paid
Vertical credit spread	Defined	Width of the spread − credit received
Iron condor	Defined	Width of one side − total credit received
Straddle / strangle (bought)	Defined	Total premium paid
Covered call	Defined, but large	The stock can fall toward zero, minus the premium
Cash-secured put	Defined, but large	Strike × 100 shares, minus premium, if the stock goes to zero
Selling a naked call	Undefined	No limit — a stock's price has no ceiling
Selling a naked put	Undefined	Strike × 100 shares if the stock goes to zero

RISK

A **naked** option is one you sold with no stock and no protective option behind it. A naked call has theoretically unlimited risk, because a price has no maximum. This chapter does not teach naked selling, and most brokers will not approve beginners for it. If a trade's worst case cannot be stated in one sentence with a dollar figure, that trade is not for you yet.

Which Strategy Fits Which View

The whole chapter on one card. Find what you believe, then read across.

Your view	Simpler approach	Spread approach
---	---	---
Bullish — "it goes up"	Buy a call — or sell a cash-secured put at a price where you'd happily own the stock	Bull call spread (debit), or bull put spread (credit)
Bearish — "it goes down"	Buy a put	Bear put spread (debit), or bear call spread (credit)
Neutral — "it stays in a range"	Sell a covered call, if you already own the shares	Iron condor, or a credit spread on the side you think is safe

Your view	Simpler approach	Spread approach
Big move coming, direction unknown	Buy a straddle (costly) or a strangle (cheaper)	—
You own it and want protection	Buy a protective put	—

Notice the pattern: the simple column bets on direction with premium you pay. The spread column pays less, risks less, and accepts a ceiling. Neither is "better" — they are different tools for different forecasts.

Common Beginner Mistakes

- **Treating a credit as free money.** The credit is compensation for risk — size every credit trade by its loss column, not its income column.
- **Buying far out-of-the-money options because they are cheap.** A $0.30 option is usually cheap because it will almost certainly expire worthless. Cheap is not good value.
- **Ignoring the breakeven.** You can have the direction right and still lose, because the stock did not move far enough past your breakeven in time.
- **Letting a spread ride into expiration day with no plan.** Prices near the strike get wild in the final hours, and assignment can surprise you. Many traders close spreads early instead of gambling on the final print.
- **Removing the protective leg to "make it cheaper."** The long option in a spread is what makes your risk defined. Remove it, and the trade quietly becomes undefined-risk.
- **Trading a strategy you cannot explain out loud.** If you cannot state what you own, what you sold, and your worst case in one breath, **paper trade** it first — practice with simulated money until the mechanics are boring.

Chapter Summary

- A strategy is a complete plan: entry, forecast, maximum profit, maximum loss, and breakeven — known before you trade.
- Buying a call is a simple bullish bet; buying a put is a simple bearish bet. Both can lose only the premium paid, and both need the stock to move far enough, fast enough.
- A covered call sells away your upside above the strike for income, and does not protect against a falling stock.
- A cash-secured put is a paid standing offer to buy at the strike — use it only on stocks you want to own.
- A protective put is insurance for shares you own: a floor under your loss, bought for a premium.
- Debit spreads (bull call, bear put) cost less than lone options and break even sooner, but cap profit at width − debit. Maximum loss is the debit.
- Credit spreads (bull put, bear call) collect premium and profit when the stock stays away from the sold strike. Maximum loss is width − credit — always larger than the amount collected.
- An iron condor is a bull put spread plus a bear call spread: a bet the stock stays inside a range.
- Straddles and strangles bet on a big move in either direction, and IV crush after news can sink them even when the stock moves.
- Defined-risk trades state their worst case in dollars up front. Undefined-risk trades like naked calls have no ceiling on losses and are not beginner trades.

Check Yourself

1. You buy the ABC $105 call for $2.50. What is your breakeven at expiration, and what is the most you can lose?
2. In a bull call spread, you buy the $100 call for $3.00 and sell the $110 call for $1.20. What are your maximum loss and maximum profit per spread?

3. You sell a bull put spread, collect a $1.00 credit, and the strikes are $5 apart. What is your maximum loss per spread?
4. What is an iron condor made of, and what market behavior are you betting on?
5. Why can a straddle lose money even when the stock moves sharply right after an earnings report?

Answers: 1) Breakeven is $107.50 (strike + premium); the most you can lose is the $250 premium. 2) Maximum loss is the $1.80 net debit ($180); maximum profit is the $10 width minus the $1.80 debit — $8.20 ($820). 3) Width minus credit: $5.00 − $1.00 = $4.00, or $400. 4) A bull put spread plus a bear call spread with the same expiration; you are betting the stock stays inside the range between the two sold strikes. 5) IV crush: volatility is inflated before the announcement and collapses when the news lands, deflating both options — the move must exceed the large move already priced in.

> **RULE**
> Never enter a strategy whose worst case you cannot say out loud, in dollars, in one sentence. Defined risk, known before the trade — that is the line between a plan and a gamble.



AA-14

OPTIONS RISK & ODTE

Hedging, position sizing, and the truth about same-day options — Part 4.

Alpha Academy · Team Alpha Trading

Options Part 4: Risk, Hedging & the Truth About ODTE

This is the most important document in the options series. Parts 1–3 taught you what options are and how the strategies work. This part teaches you how people actually lose money with them. The losses are rarely a surprise: they come from the same few causes, over and over, and every one of them can be understood before you ever place a trade.

You will learn why most option buyers lose, how to size a position so one bad idea cannot wreck your account, how to use puts as genuine insurance for a portfolio, and the plain truth about **0DTE** options — trades that expire the same day you buy them. Nothing here is meant to scare you away from options. It is meant to keep the market's tuition — the money every trader pays while learning — small enough that you are still trading next year.

> **RISK**
> Most beginners who trade options lose money, especially in their first year. That is not a insult and it is not bad luck. It is the predictable result of the mechanics in this chapter: time decay, overpaying, oversizing, and trading instruments designed to expire in hours. Read this chapter twice before your first live options trade.

Why Most Option Buyers Lose

Buying an option feels safe because your loss is capped at the premium. That part is true. But a capped loss that happens almost every week is still a fast way to drain an account. Here are the four causes that do the damage.

1. Theta: the rent you pay every day

Theta is time decay — the amount of value an option loses each day simply because one day of its life is gone. An option is a wasting asset, like an ice cube in the sun. It does not need the stock to move against you. Standing still is enough.

Watch it happen. You buy a call for **$2.50** with 30 days until expiration. The stock goes nowhere for two weeks — not down, just flat. Your call is now worth roughly **$1.20**. You lost about half your money and the stock did nothing wrong. Theta speeds up as expiration approaches, so the last week of an option's life is where value evaporates fastest. Every day you hold a bought option, the clock charges you rent.

2. Buying too far out of the money

An option is **out of the money** when its strike price is far from where the stock trades — for a call, a strike far above the price. These options are cheap, and cheap is seductive: "It's only $0.80. If the stock pops, I make ten times my money."

Run the real math. A stock trades at $100. You buy the **$110 call** for $0.80, expiring Friday. For that call to be worth anything at expiration, the stock must climb more than 10% in four days. That happens occasionally — and fails to happen most of the time. The stock rises a healthy 3% to $103, you were right about direction, and your call still expires worth exactly **$0**. A string of "only $80" losses is how accounts quietly bleed out: ten of them is $800 gone.

3. Overpaying when excitement is high

Implied volatility (IV) is how much movement the options market is pricing in. When big news is coming — an **earnings report**, the company's quarterly profit announcement, is the usual case — IV rises and every option gets expensive. Buyers pay panic prices, the news prints, IV collapses (this is **IV crush**, from Part 3), and the option loses value even when the stock moves the way the buyer hoped.

4. No plan: no exit, no size limit, no reason

The final cause ties the others together. Many beginners buy an option because a price was moving, a stranger posted about it, or it "felt cheap" — with no target for taking profit, no plan for cutting the loss, and whatever size the account allowed. Professionals work the other way around: the reason, the exit plan, and the size are decided **before** the order is placed. The next section covers size, because size decides whether a losing streak is a lesson or a funeral.

Position Sizing: Deciding Your Loss Before It Happens

Position sizing means choosing how much money a trade is allowed to risk before you enter it. For options, the honest way to size is by **premium at risk**: if you buy an option, assume the entire premium could be lost, because sometimes it will be. Size the trade so that a total loss is annoying, not devastating.

> **RULE**
> A common professional guideline is to risk a small fixed slice of your account on any single options idea — often **1% to 2% of the account** — counting the full premium (or the full maximum loss of a spread) as the amount at risk. This is a risk guideline, not a promise: it cannot make a bad trade good, but it can keep a bad trade small.

Work it with real numbers. Your account holds **$10,000**. At a 1% risk guideline, one idea may risk **$100**. Now look at a call priced at $2.50 — that is $250 per contract. One contract risks $250, which is 2.5% of your account: too big under a 1% rule. Your choices are to find a cheaper structure (a spread, from Part 3, can cut the amount at risk), choose a smaller premium, or skip the trade. Skipping is a legitimate answer.

Notice what this rule does to a losing streak. Ten losses in a row at 1% each cost about 10% of the account — painful, recoverable. Ten losses at 10% each cost about 65% and usually end the trader. Same trades, same market. The only difference was size.

> **NOTE**
> Percentages and account examples here are educational illustrations, not financial advice. The right risk level for you depends on your finances and goals — talk to a licensed professional about your own situation.

Hedging: Puts as Portfolio Insurance

A **hedge** is a position designed to lose a little money in good times so it can protect you in bad times. The most direct options hedge is the **protective put** from Part 3, scaled up from one stock to a whole portfolio.

The house-insurance analogy is exact. You pay a premium on your house every year. In a normal year that money is simply gone, and you do not call it a "losing trade" — you bought protection, and protection has a price. In the one year the fire comes, the policy pays out and saves you. Portfolio insurance works the same way, with the same honest cost: in calm years, it drags your returns down by what you spent on it.

Here is a concrete version. You hold **100 shares of an S&P 500 index ETF** — a fund that trades like a stock and tracks the 500 large companies of the S&P 500 index — at **$500 per share**. Your position is worth **$50,000**. You buy one put with a **$475 strike** (5% below the current price), expiring in three months, for **$6.00**. One contract covers 100 shares, so the insurance costs $6.00 × 100 = **$600**.

- **A calm quarter:** the market rises or drifts. The put expires worthless. You are out $600 — the price of sleeping well.
- **A crash:** the market falls 20%. Your shares drop to $400 each: a loss of **$10,000**. But your put is now worth $475 − $400 = $75 per share, or **$7,500**. Your total result is roughly −$10,000 + $7,500 − $600 premium = **−$3,100** instead of −$10,000. The put did not make the crash painless. It made it survivable.

Renewed every quarter, protection like this costs about **$2,400 per year** — roughly 5% of this portfolio. That is real money, which is why many long-term investors hedge only around specific worries (a big event, a concentrated position, money needed soon) instead of all the time. Cheaper puts struck further below the price cost less and protect less. There is no version of insurance that is both free and effective.

0DTE: The Truth About Same-Day Expiration

0DTE stands for **zero days to expiration**: options that expire **today**, at today's close. Major index options now offer an expiration every trading day, so there is always a contract living its final hours. 0DTE trading has exploded in popularity. You should understand both sides of why.

Why it is popular

The attractions are real. Premiums are small in dollars — a contract might cost $0.90, or $90 — so a trade feels cheap. The moves are fast: a contract can double in twenty minutes. There is no overnight risk, because the position is gone by the close. It is easy to see why screenshots of 0DTE wins spread online. What the screenshots leave out is the base rate: most of those cheap contracts expire worthless, because they are built to.

Why it is the fastest way to lose

Two forces from earlier chapters reach their extreme in the final hours.

Theta, at full speed. An option with four hours of life left loses value by the minute, not the day. Buy a call at 1:00 PM for $0.90. If the index simply goes sideways until 2:30 PM, that call may be worth $0.25 — a 70% loss while the market did essentially nothing.

Gamma, the accelerator. Gamma measures how violently an option's price sensitivity changes when the stock moves. Far from expiration, gamma is tame. In the final hours, near the strike price, gamma is enormous: a $0.50 move in the index can swing a 0DTE contract from $0.20 to $2.00 — or from $2.00 to $0.05 — faster than a beginner can react. Near the close, prices jump around so quickly that the price you click and the price you get can also differ badly.

> **RISK**
> 0DTE options combine the fastest time decay, the wildest price swings, and the least time to recover from a mistake. A contract bought at lunch can be worthless by the close with the market barely moved. If options are a casino for anyone, this corner is the slot machine. Beginners should watch 0DTE, study it, and leave it alone until defined-risk trading on longer expirations is boring and routine.

Assignment and Pin Risk at Expiration

Two end-of-life traps catch people who hold options into expiration day.

Assignment means the other side of your sold option used their right, and you must complete the deal: buy the shares (if you sold a put) or sell them (if you sold a call). Assignment on a sold option can happen any time before expiration, but it clusters at the end, and it is usually processed overnight — so you can wake up Monday owning 100 shares you never planned to hold, with the market gapping over the weekend against you.

Pin risk is the nastier cousin. It appears when the stock closes expiration day almost exactly **at** your sold strike price — "pinned" to it. Your option's buyer may or may not exercise; their decision can depend on news released after the close, which you cannot see. You spend the weekend genuinely not knowing whether you own the shares, while your own protective option on the other side of the spread may have expired worthless by a few cents. This is why experienced spread traders close positions before expiration day: the last $20 of profit is the most expensive money in options.

Early Exercise and Dividends

Most stock options are **American-style**, meaning the buyer can **exercise** — use the right in the contract — at any time, not only at expiration. The most common moment for early exercise is the day before a stock's **ex-dividend date** (the date by which you must own a stock to receive its next **dividend**, the cash payment some companies send shareholders). If a call's remaining time value is smaller than the dividend, the call's owner may exercise early to capture the payment. If you sold that call, you can be assigned and have your shares taken the night before the dividend — and the dividend goes to the new owner. If you sell calls on dividend-paying stocks, know the ex-dividend dates.

When Your Broker Closes Your Position

Here is a protection you might not know exists. If you hold expiring options that could be exercised or assigned, and your account lacks the money or margin to handle the result — say, a call expiring in the money would exercise into shares costing more cash than you have — many brokers will **close the position for you** during the final afternoon of expiration day, at whatever price the market gives. The details differ broker by broker: some warn you first, some act without asking, some charge a fee. Before you ever hold an option into expiration day, find and read your own broker's current policy on expiring positions.

A Sane Beginner Path

Options reward patience and punish tuition paid at full size. Here is the order of operations that gives a beginner the best odds of surviving the learning curve:

1. **Paper trade first. Paper trading** means practicing with simulated money in a realistic account. Use it until you can place, manage, and close every basic strategy without hesitation — and until you have watched theta and IV crush happen to your own fake positions.
2. **Start with time on your side.** Choose expirations **30 to 45 days out** or more. Decay is slower, prices are calmer, and a wrong idea can be managed instead of expiring on you by Friday.
3. **Prefer defined-risk trades.** Bought options and spreads state their worst case in dollars up front. Let that be your whole world until it is routine.
4. **Trade tiny.** One contract, at a size where a total loss is a shrug. You are buying experience at its cheapest price.

5. **Keep a journal.** The reason for every trade, the plan, and the result. Your future skill is hiding in your past mistakes, written down.
6. **Save 0DTE and event gambles for later — or never.** They are not a shortcut around the learning curve. They are the learning curve, set on fire.

Common Beginner Mistakes

- **Treating a capped loss as a small risk.** Losing "only" the premium is no comfort when the premium was 10% of your account. The cap does not save an oversized trade.
- **Buying cheap, far out-of-the-money options as lottery tickets.** Most expire worthless. A pile of small certain losses adds up to a large one.
- **Holding bought options while the stock goes sideways.** Theta does not need the stock to fall. Flat is enough to drain a position to zero.
- **Jumping straight into 0DTE because the contracts look cheap.** Cheap in dollars, extreme in speed — the hardest options environment that exists.
- **Holding spreads through expiration for the last dollars.** That is where pin risk and surprise assignment live.
- **Ignoring ex-dividend dates on stocks whose calls you sold.** Early assignment the night before a dividend is a normal event, not bad luck.
- **Assuming your broker will always save you.** Brokers may liquidate risky expiring positions, but policies differ and prices at that moment can be terrible. Managing your own exits is your job.

Chapter Summary

- Most option buyers lose for mechanical reasons: theta charges rent every day, far out-of-the-money options usually expire worthless, hyped events inflate premiums through IV, and trades entered without a plan or size limit repeat until the account is gone.
- Size by premium at risk. A common guideline: risk about 1–2% of the account on one options idea, counting the full premium — or a spread's full maximum loss — as the amount at risk.
- A hedge costs money on purpose. Protective puts on a portfolio work like house insurance: a steady small cost in calm times that converts a catastrophic loss into a survivable one.
- 0DTE options expire the same day. In their final hours, theta runs at full speed and gamma makes prices swing violently — the fastest environment in which to lose money.
- Assignment can deliver shares to your account over a weekend, and pin risk means not knowing until Monday whether it happened. Close positions before expiration instead.
- Call owners may exercise early before an ex-dividend date; if you sold the call, expect possible assignment.
- Brokers may close risky expiring positions on expiration day if your account cannot handle exercise or assignment. Know your broker's policy before you need it.
- The beginner path that survives: paper trade, use expirations 30–45+ days out, trade defined risk, trade tiny, and write it all down.

Check Yourself

1. A call you bought for $2.50 is worth about $1.20 two weeks later, and the stock has not moved. What ate the value?
2. Your account is $10,000 and you follow a 1% risk guideline. A call costs $2.50 per contract. Can you buy one contract within the guideline? Why or why not?

3. In the insurance example, the market falls 20% and the shares lose $10,000. Roughly what is the total loss with the $475 put in place, after its payout and the $600 premium?
4. What are theta and gamma doing in the final hours of a 0DTE option's life?
5. What is pin risk, and what simple habit avoids it?

Answers: 1) Theta — time decay. Half the option's life passed with the stock flat, so its time value melted away. 2) No. One contract risks the full $250 premium — 2.5% of the account, more than the $100 the 1% guideline allows. Use a cheaper structure, a spread, or skip the trade. 3) About $3,100: the put pays $7,500 against the $10,000 loss, minus the $600 premium you paid. 4) Theta drains the option's value by the minute, and gamma is at its maximum, so small stock moves cause violent percentage swings in the contract's price. 5) Pin risk is the uncertainty when a stock closes expiration day almost exactly at your sold strike — you cannot know over the weekend whether you were assigned. Closing positions before expiration day avoids it.

> **RULE**
> Risk is decided before the trade, not during it. Fix your maximum loss, keep it near 1–2% of your account per idea, and let time — not today's expiration — be on your side.



AA-15

FUTURES A–Z

Contracts, ticks, point values, margin, and rolling — the complete specifications.

Alpha Academy · Team Alpha Trading

Futures A–Z: Contracts on Tomorrow's Price

A **futures contract** is a legal agreement to buy or sell something at a set price on a future date. Read that again, slowly — everything in this chapter is built on that one sentence. Two people agree today: "We will make this trade, at this price, on that date." Then, as the real market price moves, that agreement gains or loses value every single day.

Futures let you trade the price of things you never touch: stock market indexes, gold, oil, corn, and more. They are fast, powerful, and open almost around the clock. They are also one of the easiest ways for a beginner to lose money quickly, because a small deposit controls a very large position.

By the end of this chapter you will be able to explain what a futures contract is, read a contract code in plain words, state what one **point** of movement is worth in dollars, explain margin without being fooled by it, work a complete trade tick by tick, and compare futures fairly against stocks and options.

> **NOTE**
> This chapter is education only, not financial advice. Futures are high-risk. Most beginners lose money while learning, and fast markets can cost more than expected. Learn the mechanics first, practise on a simulator if your broker offers one, and risk only money you can afford to lose.

Where Futures Came From: The Farmer and the Airline

Futures were not invented for traders. They were invented for businesses that could not stand surprises. Picture a farmer planting corn in the spring. It will not be ready until the fall, and nobody knows what corn will be worth then. If the price crashes, a year of work pays almost nothing. Now picture a bakery chain that buys huge amounts of grain every month. It has the opposite problem: if the price rockets up, its costs explode.

So the two sides deal in the spring: "In October, we will trade this corn at $4.50 a bushel" — a **bushel** is just a standard unit for measuring grain. The price is locked. The farmer can plant in peace, knowing what he will be paid; the bakery can plan, knowing what it will pay. That simple agreement — a set price, a set amount, a set future date — is the ancestor of every futures contract traded today.

Airlines do the same thing with fuel. An airline will need millions of gallons of jet fuel next year, and fuel comes from oil. If oil prices double, profits get crushed. With oil futures, it locks in a fuel cost in advance — not to get rich on oil, but to buy certainty.

The key point: futures were invented to *remove* risk, not to take it. Trading for profit came later — but the origin explains why these contracts exist and why they expire.

Why Futures Exist: Hedgers and Speculators

A **hedger** is a person or business that already has risk in the real world and uses futures to reduce it. The farmer, the bakery, and the airline above are hedgers. Hedgers gladly give up some possible profit in exchange for safety and predictability.

A **speculator** is a trader with no farm, no bakery, and no airline, who takes on the price risk the hedger wants to avoid, hoping to profit from price movement. When you buy a futures contract because you think the market will rise, you are speculating. That is not a dirty word — speculators give hedgers someone to deal with — but be honest about which one you are. As a reader of this book, you are almost certainly a

speculator, so the risk the hedger paid to get rid of is now in *your* account.

> **SETUP**
> Two plain words decide your direction. Going **long** means you bought — you profit if price rises. Going **short** means you sold a contract you did not own first — you profit if price falls. Futures make shorting as easy as buying, which is one reason beginners get into trouble so fast.

The Anatomy of a Futures Contract

Every futures contract is a standard agreement written by an **exchange** — a regulated marketplace where buyers and sellers meet; the main US futures exchange is the **CME** (the Chicago Mercantile Exchange). Because the contract is standard, everyone trades the identical thing, and any position can be bought or sold back in seconds. Here are the parts.

The underlying. The **underlying** is the thing whose price the contract follows. For the contract nicknamed "ES," the underlying is the **S&P 500**, an index — a single number tracking the combined value of 500 large US companies. You are not buying those 500 stocks — just an agreement tied to that number.

The expiration month. Every contract has an **expiration** — the date the agreement ends. Futures are named by month, and index futures mainly follow a quarterly rhythm: March, June, September, December.

The contract code. A code like **ESZ26** looks like a secret language, but it splits into three plain pieces:

- **ES** — the product: the E-mini S&P 500. "E-mini" means an electronic, smaller version of an older, bigger contract.
- **Z** — the month letter. Each month has a code letter; the four big index months are H = March, M = June, U = September, Z = December.
- **26** — the year, 2026.

So **ESZ26** reads as: "the E-mini S&P 500 contract for December 2026." No mystery. If you can read the code, you know exactly what you hold and when it ends.

The tick. A **tick** is the smallest amount a price is allowed to move. For ES, price moves in steps of 0.25 — it can print 6,000.00, then 6,000.25, then 6,000.50, but never 6,000.10. One full point (1.00) equals four ticks.

The point value. A **point** is a move of 1.00 in price. Each contract states exactly how many dollars one point is worth to you — the single most important number in futures, because it turns price movement into money. Price moves here are not percentages; they are dollars, from one simple formula:

Profit or loss = points moved × dollars per point

Every example in this chapter — and every real futures trade you ever make — runs on that formula.

The Big Contracts: What One Point Is Worth

Below are the contracts a beginner is most likely to meet. **Point value** is the dollars gained or lost per 1.00 move; **tick value** is the dollars for the smallest possible move. Read the differences carefully — one point of crude oil is worth two hundred times one point of the smallest index contract.

Contract	What it tracks	$ per point	One tick (worth)
ES	S&P 500 index (mini)	$50	0.25 point ($12.50)

Contract	What it tracks	$ per point	One tick (worth)
MES	S&P 500 index (micro)	$5	0.25 point ($1.25)
NQ	Nasdaq-100 index (mini)	$20	0.25 point ($5.00)
MNQ	Nasdaq-100 index (micro)	$2	0.25 point ($0.50)
YM	Dow Jones index (mini)	$5	1.00 point ($5.00)
RTY	Russell 2000 index (mini)	$50	0.10 point ($5.00)
GC	Gold, 100 troy ounces	$100	0.10 point ($10.00)
CL	Crude oil, 1,000 barrels	$1,000	0.01 point ($10.00)

A **troy ounce** is the unit gold is weighed in. Point value comes from the size of the real thing underneath: one GC contract covers 100 ounces of gold, so a $1 move per ounce is $100 to the contract. One CL contract covers 1,000 barrels of oil, so a $1 move per barrel is $1,000. Big underlying, big dollars — the same chart move can be a shrug in one contract and a disaster in another.

Leverage: The Magnifier That Works Both Ways

Leverage means controlling something large with something small. Futures are famous for leverage, so let us see it with real numbers.

Say MES is trading at 6,000. One MES contract has a point value of $5, so the total value it controls — the **notional value**, meaning the full dollar size of the position — is 6,000 × $5 = $30,000. You do not pay $30,000 to hold it. Your broker may let you open it with a deposit of, for example, $2,000 (amounts change; check your broker). You control a $30,000 position with $2,000 — roughly 15-to-1 leverage.

Now watch what movement does:

- The index rises 100 points, to 6,100. Profit: 100 × $5 = **$500** — a 25% gain on your $2,000 deposit, from a market move of less than 2%.
- The index falls 100 points instead. Loss: 100 × $5 = **$500**.
- A hard down day of 400 points — which happens in real markets — is 400 × $5 = **$2,000**: your entire deposit, gone in one session, on the *smallest* S&P 500 contract.

And ES, the mini, is ten times bigger than MES. That same 400-point day in one ES contract is 400 × $50 = **$20,000**. The chart does not change. Only the contract size changes.

> **RISK**
> Leverage does not make a trade better. It makes every outcome — win or loss — arrive faster and larger. The market does not care what you deposited. It pays and collects strictly by points × point value.

Margin: A Good-Faith Deposit, Not a Loan

In futures, **margin** is a good-faith deposit — money you put down to show you can cover losses while you hold a position. This differs from stock margin, and the difference matters.

> **SETUP**
> Futures margin is **not a loan**. Your broker is not lending you the rest of the $30,000, and you pay no interest on it. It is a security deposit, like the deposit on a rental car — returned when the position closes, minus any losses taken out as they happen.

There are two margin numbers to know:

- **Initial margin** is the deposit required to *open* the position.
- **Maintenance margin** is the lower amount your account must stay above to *keep* the position open.

Losses are settled in cash as prices move — your balance is adjusted to reflect current prices, a process called **marking to market**. If losses drag your account below the maintenance level, you get a **margin call**: the broker's demand to deposit more money right away, or your position will be closed for you, possibly at the worst moment. Run the deposit too low, and someone else decides when your trade ends.

Two safety habits follow. First, the required deposit is the minimum to *open*, not a sensible amount to trade with — professionals keep far more cash in the account than the minimum, so normal swings cannot trigger a margin call. Second, requirements change; exchanges raise them when markets get wild, exactly when losses are biggest. Always check your broker for the current number.

Trading Hours: Almost 24 Hours

Futures barely sleep. On CME Globex — the CME's electronic trading system — most futures trade from **Sunday at 6:00 PM to Friday at 5:00 PM Eastern Time**, with a daily break from **5:00 PM to 6:00 PM ET** when the next trading day begins.

This matters in good ways and bad ways. The good: overnight news shows up in futures prices immediately, and index futures are the early-warning signal for where US stocks will open. The bad: a position can move against you at 3:00 AM while you sleep. These markets reward traders who use protective **stop orders** — instructions left in advance that close your position automatically at a level you choose — and punish traders who assume nothing happens overnight.

Expiration and Rolling: Contracts Have a Deadline

A stock can be held for decades. A futures contract cannot, because it is an agreement with an end date. As **expiration** approaches, trading in that month dries up and everyone moves to the next month. Moving your position from the expiring contract to the next one is called **rolling**: you close the old contract and open the same position in the next month — for example from **ESZ26** (December) to **ESH27** (the following March).

Rolling is routine, but forgetting is costly: ignore expiration and you can end up in an illiquid contract — **illiquid** means few buyers and sellers, so getting out costs more — or, in physical-delivery contracts, face the delivery process described next. Put every contract's expiration date on your calendar the day you open it.

Cash Settlement vs. Physical Delivery

Contracts end in one of two ways, and you must know which kind you hold.

Cash-settled contracts settle in money. Index futures like ES, MES, NQ, and MNQ are cash-settled: at expiration, the final index value is compared with your entry and the difference is credited or debited in

cash. No shares change hands. Clean and simple.

Physical-delivery contracts end with the real thing. One CL contract is 1,000 barrels of crude oil; one GC contract is 100 troy ounces of gold. Hold these into the delivery period and the contract can obligate you to take or make delivery of the actual commodity — a warehouse-and-trucking problem no home trader wants.

> **RULE**
> Beginners must exit or roll physical-delivery contracts well before expiration and delivery deadlines. Trade the price, never the delivery truck. If you do not know a contract's last trading day and delivery rules, do not trade that contract.

Micros vs. Minis: Same Market, Smaller Stakes

For decades, the standard contracts — the minis like ES at $50 per point — were too big for small accounts to learn on safely. So the CME created **micro** contracts, exactly one-tenth the size: MES at $5 per point instead of $50, MNQ at $2 instead of $20.

Micros exist for one reason: **smaller risk while learning**. Every skill in this chapter — reading codes, counting ticks, surviving a losing streak, rolling before expiration — can be practised on MES, where a 100-point loss costs $500 instead of $5,000 on ES. The lessons are identical. The tuition is not.

A Complete Trade, Worked Tick by Tick

Let us put every piece together in one slow, honest example, made up for teaching. Real trades also subtract **commissions and fees** — your broker's per-trade charges — so check current rates and always count them.

- **The plan.** You believe the S&P 500 will rise this morning. You choose the micro, MES: $5 per point, $1.25 per tick (0.25).
- **The entry.** You buy 1 MES at 6,000.00. You are now long 1 contract; margin sits in your account as a deposit, no loan taken.
- **The move.** The index climbs to 6,012.50, and you sell at 6,012.50 to close. Selling closes a long position — you now hold nothing.
- **Count the points and ticks.** 6,012.50 − 6,000.00 = **12.50 points** gained; 12.50 ÷ 0.25 = **50 ticks**.
- **Count the money, two ways.** By points: 12.50 × $5 = **$62.50**. By ticks: 50 × $1.25 = **$62.50**. The answers must always match both ways — checking both is how you catch mistakes.
- **Subtract costs.** Commission and fees come out of that $62.50; what remains is your actual profit.

Now flip it, because futures demand honesty in both directions. Had the index fallen to 5,987.50 instead, the math is identical with the sign reversed: −12.50 points × $5 = **−$62.50**, taken from your account as the move happened. No mercy and no malice — just points × point value. That is the entire machine.

Futures vs. Stocks vs. Options

Three tools, three different shapes of risk. They are not rivals — they are different instruments. Here is the honest comparison.

Question	Stocks	Options	Futures
What do you hold?	A piece of a company	A contract on 100 shares	An agreement on a future price
Can it expire worthless?	No — shares have no end date	Yes — options expire	Contracts expire; you exit or roll
Built-in leverage?	No (unless you borrow)	Yes — premium controls 100 shares	Yes — deposit controls a big position
Main beginner danger	Slow losses, panic selling	Expiration and time decay	Oversized positions moving fast

One line deserves a second look: a bought option's loss is capped at what you paid, because an option is a right you can walk away from. A futures contract is an **obligation** for both sides — a losing position ends only when you close it, and the loss is whatever points × point value says until you do.

Common Beginner Mistakes

- **Trading the mini before the micro.** ES at $50 a point multiplies every early mistake by ten compared with MES at $5.
- **Skipping the point value.** Trading without knowing what one point is worth is guessing your risk.
- **Running at minimum margin.** With only the required deposit, the first normal swing triggers a margin call and someone else closes your trade.
- **Forgetting expiration.** Letting a contract drift toward expiry — especially a physical-delivery one — turns a simple trade into a delivery problem.
- **Confusing a deposit with a price.** Margin is not what the contract costs. Profit and loss are calculated on the full position: price × point value.
- **Assuming nothing happens overnight.** Futures trade nearly 24 hours. News does not wait for the opening bell, and neither do losses — hold overnight only with a plan and a stop.

Chapter Summary

- A futures contract is a standard agreement to buy or sell at a set price on a future date, created so businesses like farmers and airlines could lock in prices.
- Hedgers use futures to reduce real-world risk; speculators — including you — take that risk on, hoping to profit from price movement.
- Every contract has an underlying, an expiration month, a readable code (**ESZ26** = E-mini S&P 500, December 2026), a smallest price step called a tick, and a dollar value per point.
- Profit and loss always equal points moved × dollars per point; sizes range from MNQ at $2 per point to CL at $1,000.
- Leverage magnifies both directions: a small deposit controlling a $30,000 MES position means ordinary moves can gain — or wipe out — hundreds of dollars in a session.
- Futures margin is a good-faith deposit, not a loan; fall below maintenance margin and a margin call can close your position for you.

- Futures trade nearly 24 hours on CME Globex (Sunday 6 PM–Friday 5 PM ET, daily 5–6 PM break), and every contract expires, so positions are exited or rolled.
- Index futures settle in cash; gold and oil can involve physical delivery, so beginners exit or roll well before expiration.
- Micros are one-tenth the size of minis, built so beginners learn identical mechanics at one-tenth the risk.

Check Yourself

1. In your own words, what is a futures contract, and why did the farmer and the bakery each want one?
2. Read this code in plain words: **MNQH27**. What product is it, and which month and year?
3. You are long 1 NQ and price rises 10 points. How many dollars did you gain before costs? Show the formula.
4. What is the difference between initial and maintenance margin, and what happens below maintenance?
5. Why trade MES before ES, and what must a beginner never let happen with a crude oil (CL) contract?

Answers: 1) An agreement to buy or sell at a set price on a future date. The farmer locked in a selling price so a crash could not ruin the year; the bakery locked in a buying price so a spike could not explode its costs. 2) MNQ is the Micro E-mini Nasdaq-100; H means March — the March 2027 contract. 3) Points × point value = 10 × $20 = $200 gained. 4) Initial margin is the deposit to open; maintenance margin is the lower minimum balance to stay open. Fall below maintenance and you get a margin call — deposit more immediately or the broker closes your position. 5) MES is one-tenth the size of ES ($5 vs. $50 per point), so the same lessons cost one-tenth as much. And never hold CL into expiration and delivery — exit or roll well before the deadline, or risk owing delivery on 1,000 barrels of oil.

> **RULE**
> Before every futures trade, know your point value, your exit, and your expiration date. If any one of the three is a blank, there is no trade.



AA-16

ETFS & FUNDS

ETFs, index funds, and mutual funds — owning the whole market in one ticker.

Alpha Academy · Team Alpha Trading

ETFs, Index Funds & Mutual Funds: Owning the Whole Market

Imagine you cannot decide which single apple to buy — one might be sweet, one bruised. Instead of gambling on one apple, you buy a fruit basket holding a little of everything. One bad apple no longer matters much.

An **ETF** and an **index fund** work like that basket, except the basket holds pieces of companies instead of fruit.

This chapter explains ETFs, index funds, and mutual funds — and how they differ. You will learn why so many beginners start here, what these funds cost, and why a tiny fee difference can quietly become thousands of dollars over time. No stock market experience needed — we define every word as we go.

> **NOTE**
> This chapter is education only — not financial advice, tax advice, or a recommendation to buy any specific fund. Fees, minimums, and rules can change, so check the fund's official information and talk to a qualified professional about your own money.

What Is a Fund?

A **fund** is a pool of money collected from many people, used to buy many investments at once.

- You put money into the fund, along with thousands of other people.
- The fund uses that giant pool to buy investments.
- You own a small slice of everything the fund owns.

Why do this? Buying hundreds of companies one by one takes a lot of money and time. A fund does it in a single purchase. And when one company in the fund fails or is badly run, it is only one of hundreds — a bad story that hurts a little instead of a lot.

What Is an ETF?

ETF stands for **exchange-traded fund**:

- **Fund** means it is a basket holding many investments.
- **Exchange-traded** means it trades on a stock exchange — the marketplace where stocks are bought and sold — just like a single stock.

An ETF, then, is a basket that trades like a stock.

You buy an ETF the same way you buy a share of a company. A **share** is one unit of ownership. ETFs have ticker symbols, the short letter codes identifying them, such as **SPY** or **VOO**, and their prices move during the trading day. A **trading day** for US stocks is normally Monday through Friday, 9:30 a.m. to 4:00 p.m. Eastern Time.

Example: with $500, you could gamble on one company — or buy an ETF holding 500 companies and spread the $500 across all of them. The basket did the spreading for you.

What Is an Index?

Before we can explain an index fund, we need the word **index**.

An **index** is a list of companies used to measure how part of the market is doing — like a class average on a test, which tells you more than one student's score.

The most famous US index is the **S&P 500**. It tracks 500 large US companies, including household names like Apple and Microsoft. When news anchors say "the market was up today," they often mean the S&P 500 went up.

Here is a key fact many beginners miss:

> **RULE**
> You cannot buy an index itself. An index is just a number and a list. You buy a fund that follows the index. The index is the scoreboard. The fund is how you play the game the scoreboard is measuring.

What Is an Index Fund?

An **index fund** is a fund built to copy an index as closely as possible. If the index is the S&P 500, the fund holds the same 500 companies in roughly the same proportions — if Apple is about 7% of the index, the fund holds about 7% Apple. The fund is not trying to be clever. It is trying to match the list.

Two of the best-known S&P 500 ETFs are **SPY** and **VOO**. Both follow the S&P 500, so one share of either owns a tiny piece of all 500 companies at once.

Say an S&P 500 ETF trades at $500 per share, and you buy 2 shares.

- Cost: 2 x $500 = $1,000, spread across all 500 companies.
- If the S&P 500 rises 10% over time, the fund should rise roughly 10% too, minus its small fee.
- If the S&P 500 falls 10%, the fund falls roughly 10% too.

That last point matters: a basket protects you from one company failing, not from the whole market falling. Index funds spread risk; they do not erase it.

Diversification: Do Not Put All Your Eggs in One Basket

Diversification means spreading your money across different investments so one bad result does not wreck you. It is the old saying made real: do not put all your eggs in one basket. Drop one basket of ten and you still have nine.

Stocks work the same way. One stock is one basket with one egg — very risky. Ten stocks in the same **industry**, a group of similar businesses like technology or banks, is better, but one bad year for that industry can pull all ten down together. A fund holding hundreds of companies across many industries is many baskets, so a bad year for one industry is cushioned by the others.

Diversification will not make you rich overnight. Its job is to keep one mistake, one scandal, or one failed company from ending your investing journey in the first year.

The Expense Ratio: The Fee You Pay Every Year

Every fund charges a fee for running the basket, called the **expense ratio** — a percentage of your money, charged each year. It sounds tiny. Over time, it is not.

Worked example: you invest $10,000.

- **Fund A charges 0.03% per year:** 0.0003 x $10,000 = $3 per year.
- **Fund B charges 1% per year:** 0.01 x $10,000 = $100 per year.

Same money — a $97 difference in the first year alone.

Now stretch it out. Fees are charged every year, and money paid in fees is no longer invested, so it cannot grow for you later. Over 20 or 30 years, a high fee can quietly eat tens of thousands of dollars of growth. You never write a check for this fee — it is taken out behind the scenes, which is exactly why beginners ignore it. Do not ignore it.

> **RULE**
> Before you buy any fund, find its expense ratio. A lower fee for the same basket leaves more of the return in your pocket.

Index funds are famous for very low fees because copying a list is cheap — no large research team is needed to copy the S&P 500.

Active vs Passive: Two Different Jobs

Funds come in two styles.

Passive means the fund follows a fixed list or rule and does not try to outsmart the market. Index funds are passive: copy the index, keep costs low, do not improvise.

Active means a manager — a person or team making decisions — picks investments they believe will beat the index, researching companies and trading more often.

In plain English: passive is a bus that follows a fixed route for a cheap fare. Active is hiring a driver who promises a faster route, charges much more, and might get you there sooner — or might get lost.

Active funds charge more because research and trading cost money. Sometimes a manager beats the index for a while, but over long periods many active funds fail to beat a simple low-cost index fund after fees. That widely reported fact is the main reason index funds became so popular. Neither word means "good" or "bad" — just know what job you are paying for, and what it costs.

Mutual Funds vs ETFs

A **mutual fund** is the older cousin of the ETF — also a basket, and many index funds are mutual funds. The biggest differences are how and when you buy and sell.

Feature	ETF	Mutual Fund
When it gets a price	All day, price changes minute by minute	Once per day, after the market closes
How you buy it	In your brokerage account, like a stock	Often directly from the fund company or through a broker
Typical minimum to start	The price of one share, and many brokers allow fractional shares	Often a set minimum, like $1,000 or $3,000, though some are lower

Feature	ETF	Mutual Fund
Taxes, in one line	Often a little more tax-efficient because of how shares are created and redeemed	Can sometimes pass capital gains to holders even in a year you did not sell

A **brokerage account** is an account at a licensed firm, called a **broker**, that lets you buy and sell investments. **Fractional shares** are partial shares — you can invest $50 into a fund whose full share costs $500. A **capital gain** is a profit made by selling something for more than you paid; taxes are personal, so treat the tax line above as a general idea only.

Which is better? For most beginners, what matters most is the expense ratio, what the fund holds, and whether you will stick with it. Both are baskets. An ETF gives you live prices all day; a mutual fund's one price a day stops some people from watching the price every five minutes.

> **NOTE**
> Mutual fund minimums, fees, and tax treatment vary. Check the fund's official documents, and talk to a tax professional for tax questions. Education only, not tax advice.

Popular ETF Categories

ETFs come in many flavors. Here are the ones you will see most often.

Broad Market ETFs

These hold most of the stock market or a major index like the S&P 500 — hundreds or thousands of companies across every industry. For many beginners, this most-diversified purchase is the starting point.

Sector ETFs

A **sector** is one slice of the economy — technology, health care, energy, or banks. A sector ETF holds only that slice.

Sector ETFs are more focused, which means more risk. If technology has a great year, a technology ETF can shine. If it has a terrible year, there is no cushion from other industries, because you did not buy them.

Dividend ETFs

A **dividend** is a cash payment a company sends its shareholders — a small thank-you check for owning the stock. A dividend ETF focuses on companies that pay higher dividends.

Dividends are never guaranteed — a company can reduce or stop its dividend at any time. A high dividend also does not automatically mean a good investment, because the share price can fall while you collect the payments.

Bond ETFs

A **bond** is a loan you make to a government or company. They pay you interest, and pay the loan back later. A bond ETF holds many bonds at once.

Bond ETFs are often held to balance stock ETFs, because bonds have historically moved less wildly than stocks. They can still lose value, especially when **interest rates**, the cost of borrowing money, rise. Bonds get a full chapter later in this course.

Leveraged ETFs

A **leveraged ETF** uses borrowed money and complex contracts to multiply the daily move of an index. If the index rises 1% in a day, a 2x leveraged ETF aims to rise about 2% that day — and to fall about 2% if the index falls 1%.

> **RISK**
> Leveraged ETFs reset every single day. That means their results over weeks or months can drift far from simply "2 times the index," and they can lose value even in a sideways market. They are built for very short-term trades by experienced traders, not for beginners to buy and hold — many beginners have lost most of their money holding them.

Common Beginner Mistakes

- **Buying a fund without checking the expense ratio.** Two funds can hold nearly the same basket while one charges 30 times more per year.
- **Thinking an index fund cannot lose money.** It absolutely can — when the whole market falls, the fund falls with it.
- **Buying five funds that all hold the same companies.** Five S&P 500 funds is still one basket, not five. Check what a fund actually holds.
- **Chasing last year's winning sector.** A sector that just had a huge year is often expensive and risky, not automatically a good buy.
- **Holding leveraged ETFs for weeks.** The daily reset works against long-term holders.
- **Selling everything in the first market drop.** Drops are normal for stock funds. Panic-selling turns a temporary drop into a permanent loss.
- **Ignoring what the ticker actually is.** Similar names can be very different funds. Read the full name and what it holds before buying.

Chapter Summary

- A fund pools money to buy many investments at once, so one purchase can own hundreds of companies.
- An ETF is a fund that trades on an exchange like a stock, with prices moving all day.
- An index is a measuring list, like the S&P 500. You cannot buy it; you buy a fund that follows it.
- An index fund copies its index instead of trying to outsmart it, which keeps fees very low.
- Diversification spreads money across many companies and industries so one failure cannot wreck you.
- The expense ratio is the yearly fee: on $10,000, 0.03% costs $3 a year; 1% costs $100 — a gap that compounds over decades.
- Passive funds follow a fixed list; active funds pay managers to pick investments and charge more.
- Mutual funds price once a day after the close and may have minimums; ETFs trade all day.
- Leveraged ETFs reset daily and are dangerous for beginners to hold.

Check Yourself

1. In your own words, what is an ETF?

2. Can you buy the S&P 500 index itself? If not, what do you buy instead?
3. You invest $10,000 in a fund with a 1% expense ratio. About how much do you pay in fees in the first year?
4. What is the difference between when an ETF gets its price and when a mutual fund gets its price?
5. Why are leveraged ETFs risky to hold for weeks or months?

Answers: 1) A fund — a basket holding many investments — that trades on an exchange like a single stock, so one purchase can own hundreds of companies. 2) No. An index is just a list and a number; you buy a fund that follows it, like an S&P 500 ETF such as SPY or VOO. 3) About $100, because 1% of $10,000 is $100. 4) An ETF's price changes all day while the market is open; a mutual fund gets one price per day, after the close. 5) Their leverage resets daily, so over time their results can drift badly from a simple multiple of the index, and they can bleed value even in a flat market.

> **RULE**
> Own the basket before you try to pick the winners — and always know the fee you are paying for it.



AA-17

FOREX & CRYPTO BASICS

Currency pairs and digital coins — two wild markets, honestly explained.

Alpha Academy · Team Alpha Trading

Forex & Crypto Basics: Two Different Wild Markets

By now you know what a stock is: a piece of a company. This chapter introduces two markets that are not stocks at all.

The first is **forex**, where people trade currencies like dollars and euros. The second is **crypto**, short for **cryptocurrency**, where people trade digital assets like Bitcoin.

Both markets are real. Both move real money. And both are famous for wiping out beginners who jump in before they understand what they are doing. This chapter will explain how each market works in plain words, how it differs from stocks, and why Alpha Academy teaches you to respect these arenas instead of rushing into them.

Read this chapter for understanding, not as an invitation to trade either market today.

> **NOTE**
> Forex and crypto are high-risk markets. Most beginners who trade them lose money. This chapter is education only — not financial advice and not a recommendation to trade forex, crypto, or anything else.

Part One: Forex — Trading Money Itself

What Forex Is

Forex is short for **foreign exchange**. It is the global market where currencies are traded for other currencies.

Every time a company in Germany buys airplane parts from the United States, money has to change from euros into dollars. Every time a tourist lands in Japan, their dollars become yen. Forex is the giant marketplace underneath all of that, and traders also use it to bet on which currencies will rise or fall.

Forex is the largest market in the world by trading volume. **Volume** means how much trading activity happens. Trillions of dollars change hands in forex every single day — far more than the stock market. There is no single exchange floor. It is a worldwide network of banks, companies, and brokers connected by computers.

Currencies Trade in Pairs

In forex, you never buy just one currency. You always trade a **pair** — two currencies at the same time.

The most traded pair in the world is written **EUR/USD**. That means euros versus US dollars.

The first currency in the pair, the euro here, is called the **base currency**. The second, the dollar, is the **quote currency**. The price of the pair tells you how many dollars one euro costs.

Example: **EUR/USD** is priced at 1.10.

- That means 1 euro costs 1.10 US dollars.
- If you trade this pair and the price rises to 1.12, the euro got stronger compared with the dollar.
- If the price falls to 1.08, the euro got weaker compared with the dollar.

When you "buy" **EUR/USD**, you are betting the euro will rise against the dollar. When you "sell" it, you are betting the euro will fall against the dollar. Every forex trade is really two opinions at once: one currency up,

the other down.

Other pairs you will see include **GBP/USD** (British pounds versus dollars), **USD/JPY** (dollars versus Japanese yen), and **USD/CAD** (dollars versus Canadian dollars). Pairs made of two major currencies are simply called **major pairs**.

What Is a Pip?

Forex prices move in tiny steps, so traders needed a tiny unit to talk about them. That unit is the **pip**.

For most pairs, a pip is the fourth decimal place: 0.0001.

Example: **EUR/USD** moves from 1.1000 to 1.1001.

- The price moved up by 0.0001.
- That is one pip.

Another example: the price moves from 1.1000 to 1.1050. That is a move of 50 pips.

Why does this matter? Because forex traders often control very large positions, a move of just a few pips can mean real money — in either direction. A pip sounds tiny. With big position sizes, it is not tiny at all.

Traders measure position sizes in **lots**. A standard lot is 100,000 units of the base currency — far more money than most beginners realize they are controlling. That leads directly to forex's biggest danger.

Leverage: The Double-Edged Sword

Leverage means controlling a large position with a small amount of your own money. It is like using a lever to lift a heavy rock: a small push moves something big. In trading, leverage multiplies both your gains and your losses.

Forex is famous for offering very high leverage.

Worked example: Your broker offers 50-to-1 leverage.

- You put up $1,000 of your own money.
- You can control a position worth $50,000.
- If the trade moves 1% in your favor, 1% of $50,000 is $500. You just made $500 on $1,000 — a 50% gain.
- If the trade moves 1% against you, you lose $500 — half your money, on a 1% move.
- If it moves 2% against you, your $1,000 is gone.

Read that again. A currency moving 2% is a completely normal event. With high leverage, a normal event can empty your account.

> **RISK**
> Leverage does not make a bad trade good. It makes every trade bigger, including the losses. Most retail forex traders lose money, and high leverage is the number one reason their accounts do not survive. If you ever trade forex, understand that borrowed size can also trigger a **margin call**, where your broker demands more money or closes your trades at a loss because your account can no longer support the position.

Forex Hours and Brokers

Forex trades around the clock during the week. Because it is global, when one part of the world sleeps, another is trading. The market runs roughly from Sunday evening to Friday evening US Eastern Time, nearly 24 hours a day, five days a week.

News can also hit at 3 a.m. your time and move your trade while you sleep.

In the United States, forex is traded through regulated brokers supervised by US regulators. If you live in the US, use only a properly regulated US broker and check its registration before depositing money.

> **RISK**
> Be careful with offshore brokers and **CFD** platforms marketed to US readers. A CFD, or **contract for difference**, is a bet with a broker on whether a price goes up or down — you never own the actual asset. Many offshore CFD platforms are not available or not legal for US residents, some are lightly regulated, and some are outright scams that make it easy to deposit and nearly impossible to withdraw. If a platform promises guaranteed profits, walk away.

Part Two: Crypto — Digital Money and Digital Assets

What a Cryptocurrency Is

A **cryptocurrency** is a digital asset — something of value that exists only as computer records, not as paper bills or metal coins — that runs on a technology called a **blockchain**.

Here is the one-sentence definition of blockchain you need: a **blockchain** is a shared public record book, copied across thousands of computers, that tracks who owns what and cannot be quietly edited afterward.

No single bank keeps the record book. Thousands of computers hold copies and agree on what it says. When you send cryptocurrency to someone, the network updates the record book: less under your name, more under theirs.

The two best-known cryptocurrencies are:

- **Bitcoin** (BTC), launched in 2009, the first and largest cryptocurrency. Many people treat it like "digital gold" because its supply is limited by its design.
- **Ethereum** (ETH), launched in 2015, the second best known. Its network can run small automated programs called **smart contracts**, which are agreements written in code that carry themselves out when conditions are met.

Thousands of other cryptocurrencies exist, often called **altcoins**, meaning any coin other than Bitcoin. Many are experiments. Many have gone to zero. A famous name does not make any of them safe.

Exchanges and Wallets

To buy crypto, most beginners use a **crypto exchange**, a website or app where you trade dollars for cryptocurrency, similar to how a brokerage account works for stocks.

After you buy, your crypto is tracked by an address on the blockchain, and you control it with a **wallet**. A wallet is a tool — an app, a browser program, or a small physical device — that holds the secret keys proving the crypto is yours.

Two plain warnings belong here:

- If you leave crypto on an exchange, you are trusting that company to hold it for you. Exchanges have been hacked and have collapsed before, taking customer funds with them.
- If you hold your own wallet and lose your secret recovery phrase, there is no password reset and no customer service line. The crypto is gone. This has happened to many people.

Crypto Never Sleeps — and It Swings Hard

Crypto trades 24 hours a day, 7 days a week, including holidays. There is no closing bell and no weekend pause.

Prices are set purely by supply and demand on exchanges. **Supply** is how much is available to buy, and **demand** is how much people want it. There is no company earnings report behind Bitcoin the way there is behind a stock, which makes its price especially emotional and jumpy.

> **RISK**
> Extreme price swings are normal in crypto. A major cryptocurrency can drop 20% in a single day. Smaller coins can drop 50% or more, or become worthless. Only money you can afford to lose completely belongs anywhere near this market — and for a true beginner, the correct amount to trade may be none, until you have real experience in calmer markets first.

Scams Are Everywhere

Because crypto is new, technical, and hard to reverse, it attracts scammers more than almost any other market.

Common traps include fake investment groups, strangers pushing a "guaranteed" trading system, fake exchanges that accept deposits but never allow withdrawals, and requests to send crypto to "unlock" a larger amount. Sending crypto is usually permanent — no bank can undo it.

> **RISK**
> If someone you met online is teaching you to trade crypto and urging you to move money to an unfamiliar platform, stop. That is one of the most common fraud patterns in the world today. Never send money based on screenshots of profits. Screenshots are easy to fake.

Forex vs Crypto vs Stocks: The Honest Comparison

Feature	Stocks	Forex	Crypto
Market hours	Weekdays, 9:30 a.m.–4:00 p.m. ET for US exchanges	Nearly 24 hours, weekdays	24 hours, every day
Leverage typically offered	Limited; margin accounts exist with rules	Very high, which is very dangerous	Varies by platform; often high and dangerous
Typical volatility	Moderate; big stocks often move 1–3% a day	Low daily moves, but leverage magnifies them	Extreme; 10–20% days happen
Regulation in the US	Strong, long-established	Regulated brokers exist; offshore is risky	Still developing; rules vary by asset and platform

Volatility means how much and how fast a price swings. **Regulation** means official rules and government watchdogs meant to keep a market fair and participants honest.

Notice the pattern: moving from stocks to forex to crypto, the hours get longer, the swings get bigger, and the safety net gets thinner. Longer hours are not a gift to beginners — they are more time for prices to move against you while you are not watching.

The Honest Bottom Line

Forex and crypto are not fake, and they are not magic. They are real markets where real professionals, banks, and trading firms compete — and where beginners are usually the easiest money those professionals make.

Your path as an Alpha Academy student is simple:

- Learn how these markets work, so nobody can fool you with jargon.
- Master the calmer, more regulated markets first, with small size and a written plan.
- If you ever enter these arenas, do it later, with experience, small positions, and money whose loss would not change your life.

Understanding a dangerous market is smart. Rushing into it is not.

Common Beginner Mistakes

- **Using maximum leverage because the broker offers it.** The offer is not a recommendation. High leverage turns small normal moves into account-ending losses.
- **Trading forex or crypto before understanding stocks.** If order types, risk, and position sizing are not automatic yet, these markets will punish the gaps.
- **Leaving large amounts of crypto on an exchange.** Exchange failures and hacks have cost customers everything, more than once.
- **Trusting profit screenshots and online "mentors."** Fake results are the bait in most crypto and forex scams.

- **Trading at all hours because the market is open.** A 24/7 market plus a tired, emotional human is a losing combination.
- **Putting in money they cannot afford to lose.** In these markets, "lose it all" is not a figure of speech.

Chapter Summary

- Forex is the global market for trading currencies, and it is the largest market in the world by volume.
- Currencies trade in pairs like **EUR/USD**; buying the pair bets the first currency rises against the second.
- A pip is a tiny price step of 0.0001 for most pairs, but with large position sizes, a few pips mean real money.
- Forex offers very high leverage, which multiplies losses as fast as gains and is the main reason beginners blow up accounts.
- Forex runs nearly 24 hours on weekdays through brokers. US readers should use regulated US brokers and avoid offshore CFD traps.
- A cryptocurrency is a digital asset on a blockchain — a shared public record book copied across thousands of computers.
- Bitcoin and Ethereum are the two best-known cryptocurrencies; thousands of smaller coins have gone to zero.
- Crypto trades 24/7, can drop 20% in a day, and is a prime target for scams because payments cannot be reversed.

Check Yourself

1. In forex, what does it mean that currencies trade in pairs?
2. **EUR/USD** moves from 1.1000 to 1.1030. How many pips did it move?
3. With 50-to-1 leverage, you control a $50,000 position with $1,000. The trade moves 2% against you. About how much do you lose?
4. In one sentence, what is a blockchain?
5. Name two ways crypto is riskier than stocks for a beginner.

Answers: 1) You always trade two currencies against each other at once — buying one means betting it rises compared with the other, like euros versus US dollars in **EUR/USD**. 2) 30 pips, because the price rose 0.0030 and each pip is 0.0001. 3) About $1,000 — 2% of $50,000 is $1,000, so your whole deposit is gone. 4) A blockchain is a shared public record book, copied across thousands of computers, that tracks who owns what and cannot be quietly edited afterward. 5) Any two of: it trades 24/7 with no closing bell, prices can drop 20% or more in a day, regulation is still developing, payments cannot be reversed, and scams and exchange failures are common.

> **RULE**
> Learn the wild markets so nobody can fool you — then earn your experience in calmer ones first.



AA-18

BONDS, RATES & COMMODITIES

IOUs, yields, gold, and oil — the foundation under the stock market.

Alpha Academy · Team Alpha Trading

Bonds, Interest Rates & Commodities: The Market's Foundation

Stocks get the headlines. Underneath them sits a much bigger, quieter foundation: **bonds**, **interest rates**, and **commodities**.

This might sound like the boring chapter. It actually explains why the stock market moves the way it does. When traders on TV mention "the 10-year yield," they are talking about bonds. When gas prices spike, that is commodities. When borrowing gets expensive and stocks sag, that is interest rates at work.

By the end, you will know what a bond is, why bond prices and yields move in opposite directions, why stock traders watch one specific number daily, and what commodities are. We define everything as we go.

Bonds: Loans You Can Buy

A Bond Is an IOU

A **bond** is a loan, packaged so that ordinary people can buy it.

When a government or company needs money — for roads, factories, or a project — it can borrow from a bank. Or it can borrow from thousands of investors at once by **issuing** bonds, which means creating and selling them to investors for the first time.

The deal a bond offers you, the buyer: you hand over money today as the lender; the borrower pays you **interest** — a fee for the use of money — on a regular schedule; and on a set future date, it pays your original money back. That IOU is why bonds are also called **debt**: the borrower is in debt to you.

A stock makes you a part-owner of a company; a bond makes you a lender. Owners take bigger risks for bigger possible rewards. Lenders get a steadier, more predictable deal — but no ownership and no share of growth beyond the promised payments.

The Key Bond Words

Three words explain almost every bond:

- **Face value** (also called **par value**) is the amount the borrower promises to pay back at the end. For most bonds, the standard face value is $1,000.
- **Coupon** is the interest rate the bond pays, based on face value. (Long ago, investors literally clipped paper coupons off bonds to collect interest.)
- **Maturity** is the date the loan ends and the face value is paid back. A bond that matures in 10 years is a 10-year loan.

A Complete Worked Example

A company issues a bond with:

- Face value: $1,000
- Coupon: 4%
- Maturity: 10 years

You buy one bond for $1,000.

Step 1 — yearly interest. 4% of $1,000 = 0.04 x $1,000 = $40 per year.

Step 2 — how it arrives. Most US bonds pay twice a year, so you receive $20 every six months — the same $40 total. **Step 3 — the end:** after 10 years, at maturity, the company pays back your $1,000.

Step 4 — add it up. Over 10 years you collected 10 x $40 = $400 in interest, plus your $1,000 back — $1,400 total, as long as the borrower kept its promise.

That "as long as" is the catch. A borrower can fail; if the company goes bankrupt, payments can stop. That risk is called **credit risk**. US government bonds are considered the safest because the borrower is the US government itself. Risky borrowers must offer higher coupons to attract lenders — higher promised interest almost always means higher risk. There is no free lunch.

The Seesaw: Bond Prices and Yields

What Is Yield?

Yield is the return you actually earn on a bond, based on the price you actually paid.

Pay exactly $1,000 for a bond paying $40 a year and your yield is 4% — the same as the coupon. But bonds are bought and sold between investors after they are issued, and prices change. The payment stays fixed at $40, so when the price changes, the yield changes. That one fact creates the most important relationship in this chapter.

The Playground Seesaw

Picture a playground seesaw: one side goes up, the other must go down. Bond prices and yields are its two sides:

- Price goes up → yield goes down.
- Price goes down → yield goes up.

Let us prove it with numbers, using a bond that pays a fixed $40 a year:

- **You pay $1,000:** yield = $40 / $1,000 = 4%.
- **The price falls and you pay $800:** still $40 a year, so yield = $40 / $800 = 5%. Price down, yield up — you bought the same promise for less.
- **The price rises and you pay $1,250:** yield = $40 / $1,250 = 3.2%. Price up, yield down.

Same bond, same $40 — three prices, three yields, always moving opposite each other.

> **RULE**
> Bond prices and yields move in opposite directions, like a seesaw. When a headline says "yields rose," it means bond prices fell.

Why Do Bond Prices Move at All?

Mainly because of interest rates in the wider economy.

Imagine you own our 4% bond, and new bonds now pay 6%. Would anyone pay full price for yours? No. Its price must fall until its yield competes — to roughly where $40 a year equals 6%: about $40 / 0.06 = $667.

The reverse works too: if new bonds pay only 2%, buyers bid your 4% bond's price up and its yield falls toward 2%.

So when general interest rates rise, existing bond prices fall — and vice versa. This is **interest rate risk**, and it is why "safe" bonds can still lose market value if you sell before maturity. Hold to maturity and get paid, and you receive face value regardless — but the price along the way can swing.

US Treasuries: The Benchmark for Everything

Bonds issued by the US government are called **Treasuries**, after the US Treasury Department, which handles the nation's money. You will hear three names:

- **Treasury bills** — maturing in one year or less.
- **Treasury notes** — maturing in 2 to 10 years.
- **Treasury bonds** — maturing in 20 or 30 years.

Treasuries matter far beyond the bond market: they are treated as the closest thing to a risk-free loan in finance, so every other borrowing rate is compared against them. A company pays the Treasury rate for its loan length, plus extra for its extra risk. Mortgages, car loans, and business loans all trace back to Treasury yields.

When the world feels scary, investors rush into Treasuries, pushing prices up and yields down — a "flight to safety."

Why Stock Traders Watch the 10-Year Yield

The most watched bond number in the world is the yield on the **10-year Treasury note** — the **10-year yield**, or **TNX** on quote screens. Why do stock traders care about a bond?

- **It is the benchmark borrowing cost**, influencing mortgage and company loan rates across the economy.
- **It competes with stocks.** If a nearly risk-free Treasury pays 5%, a risky stock must promise much more to look attractive. When yields jump, money often leaves stocks for bonds, and stock prices fall.
- **It signals expectations.** Rising yields can mean investors expect a strong economy or stubborn **inflation** — rising prices that make each dollar buy less. Falling yields can mean investors expect trouble.

A stock trader who ignores bonds is like a sailor who ignores the weather report.

Credit Ratings: Report Cards for Borrowers

Professional firms called **credit rating agencies** grade borrowers on exactly that question: how likely is repayment?

A **credit rating** is a letter grade judging how likely repayment is, starting at AAA and stepping down through AA, A, and BBB. Bonds graded BBB and above are called **investment grade** — considered relatively safe. Below that, BB and lower, are nicknamed **junk bonds**: the risk of not being repaid is much higher, so they pay much higher coupons to compensate. A suspiciously high promised return is the market charging for danger, not being generous. Ratings are agency opinions, not guarantees, and they have been wrong before — but they are a fast warning label on any bond.

Commodities: Trading Real Things

What a Commodity Is

A **commodity** is a basic physical good people and businesses need, where one unit is basically the same as another — a barrel of oil is a barrel of oil, a bushel of wheat is a bushel of wheat.

Common examples:

- **Energy:** crude oil and natural gas
- **Metals:** gold, silver, and copper
- **Agriculture:** wheat, corn, soybeans, and coffee

Farmers and oil companies use commodity markets to lock in prices for things they will produce later. A wheat farmer can agree today on a price for wheat harvested months from now, so a price crash cannot destroy the farm. Big buyers, like airlines buying fuel, do the reverse to protect against price spikes.

How Beginners Usually Meet Commodities

Almost nobody learns commodities by taking delivery of 1,000 barrels of oil in their driveway. Traders and most investors get commodity exposure in two main ways:

- **Futures.** A **futures contract** is an agreement to buy or sell a set amount of a commodity at a set price on a future date. Futures are the main way commodities trade, on exchanges like the CME in Chicago. They use leverage — a small deposit controls a large amount of product — so losses can be large and fast. Futures get a full chapter later in this course.
- **Commodity ETFs.** The exchange-traded baskets from the previous chapter, built to follow the price of gold, oil, or a mix of commodities, tradable in a normal brokerage account.

Gold: The Classic Fear Trade

Gold deserves its own paragraph. For thousands of years it has been treated as money no government can print. It pays no interest and no dividend; its price is driven almost entirely by trust and fear.

When wars, banking crises, or inflation panics scare investors, money flows into gold and its price rises. When the world feels calm, gold often cools off. That is why traders call gold a **fear trade** or a **safe haven** — an asset people run to when nervous. It can fall for years at a stretch, but gold's reputation explains most headlines about it.

Oil works differently: **crude oil** reacts to supply, demand, wars in oil regions, and exporter decisions — and since oil becomes gasoline, its price reaches your wallet within weeks. Food commodities like wheat react heavily to weather; a drought can send prices sharply higher.

How It All Connects Back to Stocks

- **Interest rates shape stock prices.** When rates rise, borrowing costs more and companies' future earnings are worth less today, so many stock prices fall — especially fast-growing companies priced for the distant future.
- **The 10-year yield is your daily weather report.** Its fast rise is one of the most common reasons behind rough stock market days, even when no company did anything wrong.
- **Commodities feed inflation.** Rising oil and food prices push living costs up, pressuring the **Federal Reserve** — the central bank of the United States, which sets the economy's key interest rate — to keep rates high, which loops back to pressure stocks and bonds.
- **Fear flows in a pattern.** Scared money tends to leave stocks and buy Treasuries (pushing yields down) and gold. Spotting that flow helps you understand a scary headline day instead of just reacting to it.

You do not need to trade bonds or commodities to benefit here — just learn to read the weather they create around stocks.

Common Beginner Mistakes

- **Thinking coupon and yield are always the same.** They match only at exactly face value; pay a different price and the yield changes.
- **Believing "yields up" means bonds got better.** Yields rise when prices fall — existing holders just lost market value.
- **Assuming all bonds are safe.** A Treasury and a junk bond share a name, not a risk level.
- **Chasing the highest coupon.** The highest payments attach to the borrowers most likely to fail.
- **Ignoring the 10-year yield.** Then a rate-driven sell-off feels random when it was visible in bonds first.
- **Treating gold like a stock.** Gold has no earnings and pays nothing; it is a trust-and-fear meter that can decline for years.

Chapter Summary

- A bond is an IOU: you lend to a government or company, it pays interest, and it returns your money at maturity.
- Key words: face value (usually $1,000), coupon (interest rate on face value), maturity (when the loan ends).
- A $1,000 bond with a 4% coupon pays $40 a year, usually $20 every six months.
- Yield is the return on the price you actually paid; prices and yields move in opposite directions, like a seesaw.
- When general interest rates rise, existing bond prices fall — and vice versa.
- US Treasuries are the benchmark for borrowing costs everywhere, and investors rush to them when scared.
- Stock traders watch the 10-year yield because it competes with stocks and signals the economy's direction.
- Credit ratings grade borrowers from AAA down; below BBB is junk — much higher risk, much higher coupons.
- Commodities are real goods like gold, oil, and wheat, traded mostly via futures and ETFs; gold is the classic fear trade.

Check Yourself

1. In plain words, what is a bond, and how is it different from a stock?
2. A $1,000 bond has a 5% coupon. How much interest does it pay per year?
3. You buy a bond paying $40 a year for $800. What is your yield? Why is it higher than the coupon?
4. Why do stock traders watch the 10-year Treasury yield?
5. Why is gold called a fear trade?

Answers: 1) A bond is a loan you make to a government or company — an IOU paying interest and returning your money at maturity; a stock makes you a part-owner, a bond makes you a lender. 2) $50 per year — 5% of $1,000 (usually $25 every six months). 3) $40 / $800 = 5%. The price fell below face value, and by the seesaw rule a lower price means a higher yield. 4) It is the economy's benchmark borrowing cost, it competes with stocks for investor money, and its moves signal expectations about growth and inflation. 5) Investors buy gold when scared — wars, crises, inflation fears — treating it as a safe haven no government

can print.

> **RULE**
> Watch the foundation, not just the house — bond yields tell you the weather before the stock market feels the storm.



AA-19

RISK MANAGEMENT A–Z

Position sizing, stops, and R-multiples — how traders stay in the game.

Alpha Academy · Team Alpha Trading

Risk Management A–Z: Staying in the Game

Here is the most important lesson in this entire school, and it is not how to make money. It is how to **not lose big**. **Risk management** means the set of rules you use to decide how much you can afford to lose on any trade, any day, and any bad week — decided before you ever place a trade.

That may sound backwards. But here is the plain truth: you cannot make money next month if your account is gone this month. Every trader who survives long enough to get good at this protected their money first. Making money is job two. Staying in the game is job one.

By the end of this chapter you will be able to: explain why a 50% loss is much worse than it sounds, calculate exactly how many shares to buy before entering a trade, set a stop loss, measure results in **R-multiples**, and write down personal risk rules like the ones professionals use.

> **NOTE**
> This chapter is education only, not financial advice, and it cannot tell you how much risk is right for your life. Only risk money you can genuinely afford to lose, and talk to a licensed financial professional about your personal situation.

Why Survival Comes First: The Math of Losses

Losses and gains are not fair opposites. This is pure math, and almost nobody tells beginners.

Say you have $1,000 and you lose 10%. You now have $900. To get back to $1,000 you must make $100 — but $100 on a $900 account is an 11% gain, not 10%. The deeper the hole, the steeper the climb out:

If you lose...	You have left (of $1,000)	Gain needed just to break even
10%	$900	11%
25%	$750	33%
50%	$500	100%
75%	$250	300%
90%	$100	900%

Read the last row again. Lose 90% of your account and you must **multiply what is left by ten** just to get back to where you started. Almost nobody does that. Traders who blow up rarely come back — not because they are not smart, but because the math becomes nearly impossible.

> **RULE**
> Small losses are cheap. Big losses are nearly permanent. No single trade, day, or bad week should ever be able to take a big bite out of your account.

Position Sizing: Deciding How Much Before You Buy

Position sizing means deciding how many shares (or contracts) to trade *before* you enter, based on how much you are willing to lose if the trade goes wrong. It is the most powerful tool in this chapter, and beginners almost never use it. Beginners pick a size by feel: "I'll buy 100 shares, that sounds good." Professionals pick a size by math.

Every trade starts with three numbers, decided in this order:

- **Your entry price** — the price you plan to buy at.
- **Your stop price** — the price where you admit the trade is wrong and get out (next sections explain stops).
- **Your dollar risk** — the most you will lose on this trade if the stop gets hit.

Then the math is one simple step:

shares to buy = dollar risk ÷ (entry price − stop price)

The distance between your entry and your stop is your **risk per share**.

Worked Example 1: A $10,000 Account

You decide you are willing to lose $100 on this trade (the next section shows how to pick that number). You buy a stock at $50, with your stop at $48. Risk per share is $50 − $48 = $2.

shares = $100 ÷ $2 = 50 shares

The position costs $2,500 — but that is *not* your risk. If the stock falls to $48 and your stop takes you out, you lose 50 × $2 = **$100**, exactly as planned. Position size and dollar risk are two different things. Position sizing keeps the risk fixed and lets the share count change.

Worked Example 2: Same Risk, Tighter Stop

Same account, same $100 risk, same $50 stock — but your stop is at $49. Risk per share is $1.

shares = $100 ÷ $1 = 100 shares

You buy twice as many shares and your risk is still $100. A closer stop lets you trade bigger for the same danger; a wider stop forces you to trade smaller. The risk stays the same either way. That is the whole trick.

> **TIP**
> Do this math *before* every trade until it is automatic. If you cannot state your dollar risk out loud before entering, you are not ready to enter.

The 1% Rule: A Common Guideline for Picking Your Risk

How do you choose the dollar risk number? A widely used guideline is the **1% rule**: never risk more than 1% of your account on a single trade.

- Account: $10,000 → 1% = **$100** risk per trade.
- Account: $2,000 → 1% = **$20** risk per trade.
- Account: $50,000 → 1% = **$500** risk per trade.

Why 1%? Losing streaks. They happen to everyone, even great traders. Lose 5 trades in a row at 1% each and you are down about 5% — annoying but easily recoverable. Lose 5 in a row risking 10% each and you

are down about 41% — and now you need a 69% gain just to get even. The 1% rule is not magic; it is simply a size that lets you survive being wrong many times in a row while you learn. Many beginners do even better starting at 0.5% or 0.25%, because early on, losses come fast and lessons come slow. Treat 1% as a ceiling, not a target.

Stop Losses: Your Emergency Exit

A **stop loss** (often just "a stop") is an order placed with your broker that automatically sells your position if price falls to a level you choose. Think of it as an emergency exit you install *before* there is a fire. You decide, while calm, the price where the trade idea is proven wrong — and the stop gets you out even if you freeze or are away from the screen.

Where does a stop go? At the price that means "my reason for this trade is dead." If you bought because a stock was bouncing off the $48 level, then a fall below $48 means the bounce failed — that is where the stop belongs. A stop is not a random number; it sits where the trade idea stops making sense, and your position size (the math above) makes the dollar loss come out right.

Two honest warnings:

- **Stops can slip.** A standard stop order becomes a "sell at the best available price" order once your price is hit. In a calm market you usually exit very near your stop. In a fast, panicking market — or when a stock **gaps** (jumps straight past a price overnight without trading in between) — your fill can be worse. A stop at $48 might fill at $47.20, or lower on a bad gap. Stops greatly reduce risk, but they do not guarantee an exact exit price.
- **A stop you will not honor is not a stop.** A "mental stop" that you talk yourself out of — *"it'll come back"* — is just hope wearing a costume. Use real orders, or be honest that you do not have a stop yet.

R-Multiples: Measuring Trades in Units of Risk

Traders who think in risk use a measuring stick called the **R-multiple**. **R** is your planned risk on the trade — the dollar amount you decided you could lose. Every result is described as a multiple of it:

- Risked $100, lost $100 → **−1R** (a normal, planned loss).
- Risked $100, lost $60 by exiting early → **−0.6R**.
- Risked $100, made $100 → **+1R**.
- Risked $100, made $250 → **+2.5R**.

Why bother? It lets you compare any trades fairly. A $250 profit sounds great — unless you risked $500 to make it, a poor +0.5R trade. A $60 profit sounds small — but on $30 of risk it is a strong +2R trade. R-multiples measure *how well you traded*, not how big your account is.

They also reveal the most hopeful fact in trading: **you do not have to win most of your trades.** Take 10 trades risking $100 each. You lose 6 at −1R (−$600) and win 4 at +2.5R (+$1,000). You were wrong more often than right — and still finished **$400 ahead**. Small controlled losses, bigger wins. That is the whole business model.

Risk-to-Reward: Never Risk a Dollar to Make Fifty Cents

Risk-to-reward compares what you can lose (entry to stop) with what you hope to gain (entry to your **target**, the price where you plan to take profit). Buy at $50, stop at $48: you risk $2 per share. Target $53: you stand to make $3. That trade offers **1.5-to-1** — or +1.5R if it works.

A common guideline is to look for at least **2-to-1**: possible gain at least twice the possible loss. With 2-to-1 trades you can be wrong 6 times out of 10 and still roughly break even or better, as the example above showed. When a trade offers $1 of possible gain for $1 of risk, you must win far more often than most humans do. The setup may look pretty, but the math is against you. Skip it.

> **RISK**
> The most dangerous sentence in trading is "it has to come back." Prices do not have to do anything. A stock bought at $50 can go to $30, then $10, then pennies. Your stop is what stands between a bad trade and a ruined account.

Daily Loss Limits: Knowing When to Walk Away

Per-trade limits protect you from one bad trade. A **daily loss limit** protects you from one bad *day*: a number set in advance — "If I am down this much today, I stop trading today. No exceptions."

A common starting point is 2–3% of the account per day: $200–$300 on $10,000. Notice how it connects to the 1% rule — risk 1% per trade and roughly three losers end your day. That is by design. Three losses in a row usually means today's market conditions do not fit your strategy, or *you* are not trading well today. Either way, more trades rarely fix it; they usually make it worse. Loss one stings. Loss two angers. By loss three, many beginners abandon their plan and trade their feelings — and that is when the account-killing fourth and fifth trades happen. The daily limit is a wall you build while calm to protect you from yourself while emotional. Many traders pair it with a weekly limit (for example, down 6% in a week means stop and review before trading again).

> **RULE**
> When you hit your daily loss limit, you are done for the day. Close the laptop. The market will be there tomorrow; your job is to make sure your account is too.

Diversification vs. Concentration, in Plain Words

Diversification means spreading your money across different things instead of putting it all in one place. Plain version: do not put all your eggs in one basket, because if you drop that basket, breakfast is over.

If your whole account sits in one stock and that company reports terrible news overnight, you can wake up down 30% with no chance to react. Spread across several companies in different industries, one disaster is a dent, not a catastrophe. **Concentration** is the opposite — a large share of your money in one or two ideas. It cuts both ways: bigger gains if right, bigger damage if wrong. Beginners, whose main job is surviving long enough to learn, generally belong nearer the diversified end: several modest positions, each sized by this chapter's math, none big enough to ruin the account alone.

One warning: owning ten different tech stocks is not real diversification. Stocks in the same industry often move together, so that is one big bet wearing ten costumes. Different industries, different kinds of assets, and some cash on the sideline — that is what spreading out actually looks like.

Two Habits That Quietly Wreck Accounts

Averaging down blindly. Averaging down means buying more of something after it falls, to lower your average cost. Planned carefully in advance, it can be part of a strategy. Done blindly — "it's cheaper now, I have to buy more" — it turns a small planned loss into a giant unplanned one. Each extra buy increases your size in a trade that is *proving you wrong*. If a trade hits your stop, the planned action is to exit — not to double down.

Revenge sizing. After a loss, the urge hits: "I'll go bigger on the next one and win it back." This is **revenge trading**, gambling in its purest form. The next trade does not know you lost the last one. Doubling size after a loss means a second loss — at twice the size — lands when you are least able to handle it. Your size comes from your rules and the math, never from your mood.

The Risk of Ruin, in One Paragraph

Statisticians who study gambling and trading use the phrase **risk of ruin**: the chance that your style of trading eventually takes you to zero, or close enough that you cannot recover. The simple version: if you risk a small slice of your account each trade, your risk of ruin stays tiny even through long losing streaks. If you risk big slices, ruin stops being bad luck and becomes the *expected outcome* over time — because everyone, everyone, eventually hits a long losing streak. Big size does not just make losses bigger. It changes the final destination. Keeping size small is not timidity; it is mathematics.

Sample Personal Risk Rules You Can Copy

Here is a starter rulebook. Copy it, adjust the numbers to your account, print it, and keep it where you trade. Rules only work if they exist *before* the trading day starts.

- I risk no more than 1% of my account on any single trade. While learning, I use 0.5%.
- I decide my entry, my stop, and my dollar risk before I enter — every time, in writing.
- I stop for the day if I am down 3%, or after 3 losing trades, whichever comes first.
- I stop for the week if I am down 6%, and I review before trading again.
- I only take trades offering at least 2-to-1 reward for the risk.
- I never add to a losing position. If the stop is hit, I am out.
- I never increase my size to win back a loss.
- No single position can be big enough that one bad overnight gap ruins my month.
- I write down every trade in my journal the same day I take it.
- If I break a rule, I stop for the day and write down what happened.

> **TIP**
> Tape the two or three rules you break most often to the edge of your monitor. The rule you need is usually the one you keep "forgetting."

Common Beginner Mistakes

- **Risking whatever "feels right"** instead of calculating position size from the stop distance.
- **Trading without a stop**, or moving the stop further away when price approaches it.
- **Risking 5%, 10%, or more per trade**, which makes a normal losing streak mathematically fatal.

- **Judging trades only by dollars** ("I made $250!") instead of by R ("I risked $500 to make it — bad trade").
- **Trying to win back the day's losses** with bigger, unplanned trades.
- **Averaging down** into a losing position with no plan and no limit.
- **Putting most of the account into one stock** because of a tip, a headline, or excitement.
- **Having no daily loss limit**, so one emotional afternoon undoes a month of careful work.

Chapter Summary

- Survival comes first: a 50% loss needs a 100% gain to recover, and a 90% loss needs 900%.
- **Position sizing** is decided before entry: shares = dollar risk ÷ (entry price − stop price). Position size and dollar risk are different things.
- The **1% rule** — risking no more than 1% of your account per trade — is a common guideline that lets you survive long losing streaks. Beginners often start at 0.5% or less.
- A **stop loss** is a pre-set exit placed where your trade idea is proven wrong. Stops can slip in fast markets or on overnight gaps, so they reduce risk but do not guarantee a price.
- **R-multiples** measure results in units of planned risk: risk $100, make $250 = +2.5R. You can lose more trades than you win and still finish ahead if wins are bigger than losses.
- Aim for **risk-to-reward of at least 2-to-1**, so winners can pay for several losers.
- A **daily loss limit** (for example 3%, or three losing trades) ends your day before emotions take over. Weekly limits protect you the same way.
- **Diversification** spreads damage; concentration magnifies gains and losses alike. Ten stocks in one industry is one bet, not diversification.
- Never average down blindly and never revenge-size: both turn small, survivable losses into account-killing ones.

Check Yourself

1. Your account loses 50%. What percentage gain do you now need just to get back to even?
2. You have a $10,000 account and follow the 1% rule. You want to buy a stock at $40 with a stop at $38. How many shares should you buy?
3. You risk $100 on a trade and make $250. What is the result in R-multiples?
4. In a fast-moving market, your stop is set at $48 but your sell order fills at $47.20. What is this called, and what does it teach you about stops?
5. You have taken three losing trades in a row this morning and hit your daily loss limit, but you spot a setup that looks perfect. What does the rule in this chapter say to do?

Answers: 1) 100% — after losing half, you must double what is left. 2) Your risk is $100 (1% of $10,000); risk per share is $40 − $38 = $2, so $100 ÷ $2 = 50 shares. 3) +2.5R. 4) Slippage — stops reduce risk but do not guarantee your exact exit price, especially in fast markets or overnight gaps. 5) Stop trading for the day. The limit exists to protect you from trading while emotional, and no single setup is worth breaking it.

RULE

Decide how much you can lose before you decide how much you want to make. Size small, stop out fast, live to trade tomorrow.



AA-20

TRADING PSYCHOLOGY

Fear, greed, FOMO, and revenge — the game between your ears.

Alpha Academy · Team Alpha Trading

Trading Psychology & Discipline: The Game Between Your Ears

Two traders can use the same strategy, on the same day, in the same market. One ends the week ahead; the other ends it frustrated and down money. The difference is rarely the strategy. It is what happened inside each trader's head.

Trading psychology is the study of how your thoughts and feelings affect your trading decisions. **Discipline** means following your plan even when your feelings shout at you to do something else. For most traders, these two matter more than any chart pattern ever will.

By the end of this chapter you will be able to: name the six emotions that wreck the most trades and spot them in yourself, explain why losing $100 hurts more than gaining $100 feels good, describe why a written plan cures emotional trading, build routines that protect your decisions, and use a journal to turn emotions into useful data.

> **NOTE**
> Struggling with trading emotions is normal — every trader has felt everything in this chapter. But if trading stops feeling like a skill you are learning and starts feeling like gambling you cannot control, stop and talk to someone you trust. No market is worth your well-being.

Why Your Brain Is the Hardest Opponent

Your brain did not evolve for trading. It evolved to keep you alive on a savanna, and it is running ancient software in a modern market:

- **It treats a losing trade like physical danger.** A red number on screen can trigger the same stress response as a threat to your body — racing heart, tunnel focus — and a stressed brain wants the pain to stop *now*, which is why people sell good trades too early or freeze in bad ones.
- **It craves certainty.** The market never offers any, and a brain that hates "I don't know" will grab at anything that feels like a sure thing — a tip, a headline, a stranger's post.
- **It chases whatever moved recently.** That instinct kept our ancestors alive. In markets, it makes you buy whatever just shot up and panic about whatever just dropped — usually at the worst moment.

You cannot uninstall this software, and every professional has the same brain you do. What they have is rules and routines that keep it from driving. You will still *feel* everything — the goal is to feel it and follow your plan anyway.

The Six Emotions That Wreck Trades

Fear

Fear is the dread of losing money, in two opposite costumes. Sometimes it makes you **too careful**: your setup appears, your hand hovers, and you cannot click — then the trade works without you. Sometimes it wrecks your **exits**: a trade wiggles against you, fear screams "get out," and you sell minutes before the trade does what your plan expected.

Meet Daniel. His plan: buy if a stock held above $75, stop at $73.50. The stock held at $75.20, wobbled to $74.80 — still above his stop — and Daniel's pounding heart made him sell "to be safe." He lost $40 on a trade his plan would have turned into a $160 gain. The market did not beat Daniel; his fear did.

Greed

Greed is the hunger for more after you already have enough. A trade reaches your planned **target** — where you said, calmly and in advance, "I will sell here" — and a voice says: *but what if it keeps going?* So you hold, and watch the gain shrink to nothing, or into a loss.

Greed also whispers *before* trades. Meet Priya, who had risked $50 a trade, right on plan, for a month. One morning she felt certain about a stock — truly certain — and risked $300 instead. It lost, and one moment of greed erased six careful winning days. Certainty is a feeling, not a fact, and the market charges full price for confusing the two.

FOMO: The Fear of Missing Out

FOMO stands for the fear of missing out: the painful feeling that everyone else is making money on a move you are not in. It strikes when a stock is exploding upward, your feed is full of celebrating people, and your brain screams, "Get in NOW or you'll miss it forever!"

Meet Marcus. A stock he had never heard of was up 40% by 11 AM, and screenshots of other people's profits were everywhere. Marcus bought near the top — no plan, no stop, no idea what the company did. The decision took ninety seconds and was really just the sentence "I don't want to be left out." The stock faded all afternoon; he sold at a loss. He had bought a feeling and sold a lesson.

The truth about FOMO: there is always another trade — tomorrow, next week, next year. A move you missed cost you nothing; a move you chased without a plan can cost you plenty.

Revenge Trading

Revenge trading means making trades to win back money you just lost, driven by anger instead of a plan. You want the money back — personally, immediately. But the market does not know your name and cannot be punished. The only account your revenge can hurt is your own.

Meet Alex. His first trade lost $100 — a normal, planned loss. Furious, he entered a bigger trade within two minutes, on a stock he had not researched, with no stop, "to make it back." It lost $260. Down $360 and shaking, he did it again. By noon, one ordinary $100 loss had become a $700 disaster. The first loss was trading; everything after it was revenge, taken when his judgment was at its worst.

> **RISK**
> If you notice you are trading to *undo* a loss rather than to *follow a plan*, you are revenge trading. It is one of the most reliable signs to stop for the day.

Boredom Trades

Not every dangerous emotion is intense. **Boredom trading** means placing trades because you are sitting at the screen and nothing is happening — your setup has not appeared, but your finger is itchy and the silence feels like wasted time.

Here is the misunderstanding: a trader's job is not to trade. It is to *wait for their setup and then trade it*. Professionals spend most of the day doing nothing, on purpose — the hours between setups are not empty time, they are the job. A boredom trade has no plan behind it and the same ability to lose money as a real one.

Overconfidence After Wins

The sneakiest emotion arrives disguised as success. After a few wins, the brain quietly rewrites history: *I've figured this out.* Stops feel optional, sizes creep up, and sloppy trades start to feel "intuitive."

Meet Sofia, who won four trades in a row and felt unstoppable. On the fifth she skipped her checklist — *I can feel the market today* — and doubled her size. That loser erased all four wins. A coin landing heads four times has not become a heads-only coin, and a trader who wins four times is not immune to loss. Hot streaks are when discipline matters most — and when you are most tempted to abandon it.

Loss Aversion: Why Losses Hurt So Much More

Behavioral researchers who study how real humans decide about money have documented a pattern called **loss aversion**: for most people, losing $100 feels roughly **twice as bad** as gaining $100 feels good. Losses loom larger.

This one finding explains a huge share of bad trading behavior:

- **Holding losers too long:** selling means accepting the loss, and accepting it hurts — so traders delay the pain and "give it more time," while the loss often grows.
- **Selling winners too early:** the fear of watching a gain turn into a loss is so uncomfortable that traders grab profits quickly, cutting winners short.
- Together, loss aversion pushes beginners toward the exact opposite of what works: **big losses and small wins**. Chapter 19's risk rules — pre-set stops, targets, and position sizes — exist largely to protect you from this one built-in bias.

You cannot argue yourself out of loss aversion with willpower. You defeat it with structure: decisions made in advance by the calm you, which the emotional you has agreed to obey.

The Plan Is the Cure

Every emotion above has the same root: a decision made in the moment, by a stressed brain, with money on the line. The cure is to move decisions to a calmer time and state of mind.

A **trading plan** is a written document that answers, in advance: What do I trade? What must I see before I enter? Where is my stop? Where is my target? How much do I risk? What makes me stop for the day?

It works because when you wrote it you were calm and not losing money — a better decision-maker than the version staring at a flickering red screen at 10:47 AM. The plan lets the calm you give orders to the stressed you.

Three rules make a plan actually work:

- **Write it when calm.** Plans made mid-session, mid-loss, or mid-euphoria are just emotions wearing a suit.
- **Make it specific.** "I'll be careful" is not a plan. "I risk $50 per trade, stop out below the setup candle, and quit after two losses" is a plan.
- **Judge yourself on following it, not on the outcome.** A rule-following trade that lost is a *good trade* — losses are a normal cost of business. A rule-breaking trade that won is a *bad trade* — it paid you to build a habit that will eventually send you the real bill.

> **RULE**
> Plan the trade when you are calm. Then trade the plan when you are not. If it is not in the plan, it does not happen.

Routines: Guardrails for Your Brain

Willpower runs out; routines do not ask for it — they just run. Two short ones will carry most of your discipline.

The Pre-Market Checklist

Before the market opens, spend a few quiet minutes on a checklist like this starter version:

- What is the overall market doing — up, down, choppy, or major news coming?
- What are my setups for today, and at what prices do they trigger?
- How much am I risking per trade today? What is my daily loss limit?
- Did I sleep enough to think clearly? Am I upset about something unrelated?
- Is my journal open and ready?

That question about your state of mind is not soft — it is risk management. Trading while exhausted, furious, or distracted is like driving in heavy fog. Sometimes the professional move is not to drive.

The Post-Trade Review

After the session, spend ten minutes looking back while the trades are fresh:

- Did I follow my plan on each trade — yes or no, one by one?
- Where did I feel an emotion strongly, and what did I do about it?
- What is one thing I will do the same, and one thing I will fix, next session?

The review is mostly about *your behavior*, not whether the money went up or down. You are training a decision-maker, not grading a slot machine. Behavior you can control; outcomes you can only influence.

Your Body Is Part of Your Trading

Short section, simple advice, real impact. Your brain is an organ, and it runs on the basics:

- **Sleep.** A tired brain makes impulsive decisions — exactly the ones this chapter tries to prevent. Slept terribly? Trade smaller, or not at all.
- **Breaks.** Step away regularly — stretch, water, daylight, a short walk. Hours staring at flickering prices narrows your thinking and raises stress.
- **Food, water, movement.** Trading on caffeine fumes and an empty stomach is a real handicap.
- **Distance from the screen.** You do not need to watch every tick. Set your plan, set alerts, and let the market come to you.

You are the player *and* the coach — and no coach sends an exhausted, sleepless player into a game.

Knowing When to Stop

Stopping is a skill, and it has specific triggers. Stop for the day — or the week — when any of these is true:

- You hit your daily or weekly loss limit (see Chapter 19). No debate, no "one more."

- You notice revenge urges: you are thinking about money lost instead of the setup in front of you.
- You have broken a rule twice in one session. A third break is coming if you stay.
- You are physically done — exhausted, sick, or your focus is gone.
- Life is loud right now: a family emergency, a crisis at work, anything consuming the attention trading requires.

Stopping is never quitting. Every professional has closed the laptop on a bad morning and saved their week by doing it. Traders who blow up accounts are not the ones who stopped too early; they are the ones who could not stop at all.

> **TIP**
> Decide your stopping rules while calm and write them into your plan. In the moment, you will always invent a reason to keep going — which is exactly why the decision must be made in advance.

Journaling Emotions as Data

A **trading journal** is a written record of your trades. Most beginners record only numbers: entry, exit, profit or loss. Useful — but this chapter suggests adding one more thing: **how you felt, and what you did about it.** An entry might look like this:

Field	Example
Setup	My planned breakout setup; I waited for it
Planned risk	$50, stop set before entry
Emotion before	Calm, a little impatient after a quiet hour
Emotion during	Fear at the first dip; wanted to sell early; held to plan
Followed plan?	Yes
Result	+2R
Lesson	The dip was normal. Trusting the stop worked.

After twenty or thirty entries, patterns jump off the page. Maybe all your rule-breaking happens after 11 AM. Maybe FOMO trades lose every time while planned trades do fine. That is **data about yourself** — the most valuable data you will ever collect, because no book or teacher can give it to you. You stop guessing about your psychology and start managing it with evidence.

Journal feelings without judging them. "I felt greedy and tripled my size," written honestly, is not a confession — it is the first step to changing it.

Common Beginner Mistakes

- **Believing emotions mean something is wrong with them.** Every trader feels fear, greed, and FOMO; the skill is following the plan anyway.
- **Trading with no written plan**, then wondering why in-the-moment decisions go wrong.

- **Judging trades only by profit and loss** — celebrating reckless wins and beating themselves up over disciplined losses.
- **Revenge trading after a loss** instead of stopping, reviewing, and resetting.
- **Taking boredom trades** in quiet hours because sitting still feels like doing nothing.
- **Letting wins rewrite the rules** — sizing up and skipping the checklist after a hot streak.
- **Trading exhausted, upset, or distracted**, as if decision quality did not depend on your state.
- **Keeping no journal**, so the same mistakes repeat for months with nothing to learn from.

Chapter Summary

- Your hardest opponent is your own brain: it evolved for survival, not markets, and treats losses like danger.
- Six emotions wreck the most trades: **fear**, **greed**, **FOMO**, **revenge trading**, **boredom trades**, and **overconfidence** after wins.
- **Loss aversion** — losses hurting roughly twice as much as equal gains feel good — pushes traders to hold losers too long and sell winners too early. Structure, not willpower, is the defense.
- A written **trading plan**, made when calm, moves decisions to the best version of you. Judge yourself on following it, not on single outcomes.
- **Routines** — a pre-market checklist and post-trade review — carry discipline so willpower does not have to.
- Sleep, breaks, and self-care directly affect decision quality.
- Stopping is a skill: loss limits, revenge urges, repeated rule-breaking, exhaustion, and life crises are all valid stop signals.
- A **journal** recording emotions alongside numbers turns psychology into data, revealing your patterns over 20–30 trades.

Check Yourself

1. What is FOMO, and what did it lead Marcus to do in his story in this chapter?
2. In the story about Alex, the first $100 loss was normal. What turned the day into a $700 disaster?
3. What is loss aversion, and what two bad habits does it push traders toward?
4. Why does a trading plan need to be written while you are calm?
5. Besides entries, exits, and profit or loss, what should you record in your trading journal, and why?

Answers: 1) FOMO is the fear of missing out; Marcus chased a stock up 40% with no plan or stop so as not to be left out, and lost when it faded. 2) Revenge trading — bigger, unplanned trades to win the loss back while angry. 3) Loss aversion: losses feel roughly twice as painful as equal gains feel good; it pushes traders to hold losers too long and sell winners too early. 4) The calm you makes better decisions than the stressed you watching live prices — the plan lets your calm self give orders to your stressed self. 5) Your emotions before and during the trade, whether you followed your plan, and the lesson — over many entries these reveal your personal patterns, turning psychology into fixable data.

RULE

You cannot control the market, and you cannot switch off your emotions. You can control your plan, your size, and whether you stop. That is enough — it is, in fact, the whole game.



AA-21

TRADING PLAN & JOURNAL

Your business plan for trading — and the journal that grades it.

Alpha Academy · Team Alpha Trading

Building Your Trading Plan & Journal

Imagine opening a small restaurant with no menu, no prices, no hours, and no budget — just buying whatever looked good each morning and hoping money was left at month's end. That is exactly how most beginners trade, and it is the main reason most beginners lose money.

A **trading plan** is a short written document that decides, in advance, how you will trade. Think of it as a business plan for your trading. A real business writes its rules before it opens its doors. You will write yours before you risk real dollars.

A **trading journal** is the notebook you keep after every trade. The plan says what you *intended* to do. The journal records what you *actually* did. Comparing the two is how a beginner turns into a trader.

After reading this chapter you will be able to write your own one-page trading plan, copy a simple plan skeleton word for word, and keep a journal that teaches you something new every week.

> **NOTE**
> This chapter is education only, from Team Alpha Trading. It is not financial advice, and it cannot make trading safe. Trading always involves risk, and most beginners lose money at first. A plan does not remove the risk — it stops the risk from being random.

Why a Plan Matters More Than Any Strategy

A **strategy** is a method for deciding when to buy and sell — for example, "buy when the price jumps above yesterday's high." Beginners hunt for the perfect strategy for months. Here is the honest truth: even a decent strategy fails without a plan, because the plan is what controls *you*.

When real money is on the line, your brain changes. A trade goes against you and fear whispers "sell now!" A trade goes your way and greed whispers "let it ride forever!" Neither voice is thinking; both are just reacting. Your plan is the calm version of you, thinking clearly on a quiet Sunday, leaving instructions for the emotional version who shows up Tuesday morning.

> **RULE**
> If a decision is not in your plan, you do not make it during the trading day. You write it down, study it later, and change the plan on the weekend — never in the middle of a trade.

The Seven Pieces of a Trading Plan

Every good beginner plan answers seven questions. We will go through them one at a time.

1. What You Will Trade

Pick a very short list of things to trade — called your **watchlist** — and ignore everything else. One or two familiar names is plenty. For example: "I trade the **SPY** ETF and Apple (**AAPL**) stock only." An **ETF** (exchange-traded fund) is a basket of stocks sold as one single product, so **SPY** moves with 500 large US companies at once.

Why so narrow? Every product behaves a little differently, and learning one deeply beats skimming twenty. Master a few tickers before expanding your list.

2. When You Will Trade

Write down your trading hours and your trading days. Maybe: "Weekdays, 9:30 AM to 11:30 AM Eastern only. No trades on days I work a morning shift." The US stock market's regular hours are 9:30 AM to 4:00 PM Eastern, but you do not need all of them. The first hour is fast and wild. Many beginners do better starting a little later, when prices calm down.

Naming your hours also protects your life — trading without a stopping time can eat a whole day and a whole mood.

3. Your Setups, in Plain Words

A **setup** is a specific situation you wait for before you trade — your recipe. It must be written so clearly that another person could follow it. "Buy when it looks strong" is not a setup. This is a setup: "If SPY opens, pulls back to yesterday's closing price, and then rises above the first 15-minute high, I buy."

Beginners should start with **one** setup. Not five. One recipe, cooked the same way, many times, until you know exactly how it behaves — how often it wins, how much it wins, and how much it loses when it fails.

4. Entry and Exit Rules

An **entry rule** says exactly what must happen before you buy. An **exit rule** says exactly what must happen before you sell. You need exits for both directions:

- **Profit exit:** where you sell when the trade works — for example, at a price target you picked before entering.
- **Loss exit:** where you sell when the trade fails. This exit price is set with a **stop-loss order**, an automatic order you place with your broker that sells your position if the price falls to a level you choose. It is your seatbelt: you hope not to need it, and you never drive without it.

Decide both exits *before* you enter. After you are in, your emotions will try to renegotiate. Your plan does not negotiate.

5. Position Size and Maximum Risk

Position size means how much money you put into one trade. **Risk** means how much you would lose if the trade hits your stop-loss. These are not the same number. If you buy $1,000 of stock with a stop-loss 5% below your entry, your risk is about $50 — because 5% of $1,000 is $50, and the stop-loss is designed to get you out near that loss.

A common beginner rule is to risk no more than 1% of your account on a single trade.

> **SETUP**
> The 1% rule, step by step. Your account has $2,000. One percent of $2,000 is $20. That means each trade may lose at most $20 if your stop-loss is hit. If your entry is $50 and your stop-loss is $48, you risk $2 per share, so $20 ÷ $2 = 10 shares maximum. Small? Yes. That is the point — you are paying for lessons as cheaply as possible.

6. Your Daily Stop

A **daily stop** is a loss limit for the whole day. When you hit it, you stop trading until tomorrow — no exceptions. Example: "If I lose $40 in one day (two full trade losses), I close the platform and I am done." Bad days exist. A daily stop keeps a bad day from becoming a destroyed account. Most blow-ups do not happen in one trade; they happen in one afternoon of angry, plan-free trading.

7. What You Will Never Do

Write your personal "never" list while you are calm. Common ones:

- Never trade money needed for rent, bills, or food.
- Never add money to a losing trade hoping it comes back.
- Never move a stop-loss further away to avoid a loss.
- Never trade when tired, sick, rushed, or upset.
- Never buy something just because someone online said to.

Your list is a fence you build around your future emotional self.

A Sample Plan You Can Copy

Copy this skeleton, fill in your own answers, and tape it where you trade.

Piece	My Rule
What I trade	**SPY** and **AAPL** only
When I trade	Weekdays, 10:00 AM – 12:00 PM Eastern
My one setup	Buy a pullback to yesterday's close that turns back up
Entry rule	Price rises back above the pullback's turning point
Profit exit	Sell at a gain equal to twice my risk
Loss exit	Stop-loss placed the moment I enter, never moved
Size and max risk	Risk no more than 1% of my account per trade
Daily stop	Done for the day after losing 2% of my account
My never list	No rent money, no revenge trades, no moving stops

A **revenge trade** is a rushed new trade placed right after a loss, trying to "win the money back." It is emotion, not strategy, and it has emptied many accounts.

> **TIP**
> Your plan is allowed to change — on paper, on a weekend, after studying your journal. It is never allowed to change in the middle of a trading session.

The Trading Journal: Your Personal Teacher

Your journal is where every trade gets written down, win or lose, the same day it happens. Memory lies. After a painful loss you will remember the trade differently than it happened. The journal does not lie.

Record these items after **every** trade:

- **Date and time** — when you entered and exited.
- **Ticker** — what you traded, like **AAPL** or **SPY**.
- **Setup** — which plan setup it was. If it was not in the plan, write "NOT IN PLAN" — seeing those words add up is powerful.
- **Entry and exit prices** — where you got in and out.
- **Size** — how many shares or contracts.
- **Result in dollars** — what you made or lost, after fees.
- **Result in R** — your result measured in units of your planned risk. **R** is simply the amount you planned to risk on that trade. If you risked $20 and lost $20, that is −1R. If you risked $20 and made $40, that is +2R. R lets you compare a $20-risk trade and a $200-risk trade fairly.
- **What you felt** — honest and brief: "calm," "rushed," "scared," "Revenge trade — angry about the last loss."
- **One lesson** — a single sentence: "I entered before my setup completed."

Here is one filled-in journal row:

Date	Ticker	Setup	Entry	Exit	Result $	Result R	Feeling	One Lesson
Mar 3	SPY	Pullback	$510.00	$512.00	+$40	+2R	Calm	Waiting for the full setup works

Journaling takes three minutes per trade. Those three minutes are the cheapest trading education in the world.

The Weekly Review Habit

Once a week — many traders use Sunday — sit down with your journal for 20 minutes and answer four questions:

- Did I follow my plan? Count how many trades matched the plan exactly.
- Which setup made money, and which lost money?
- What was my single most repeated mistake?
- What is the ONE thing I will improve next week?

Notice the focus: your *behavior*, not just your balance. A week where you lost a little but followed every rule is a good week. A week where you made money breaking every rule is a dangerous one — it teaches habits that will bill you later.

Paper Trading First

Paper trading means practicing with fake money inside a real broker platform. The prices are real, the charts are real, only the dollars are pretend. Almost every major broker offers it free.

Paper trading is where you learn the buttons, test your setup, and make your first fifty mistakes at zero cost. Treat it seriously: same plan, same sizes you could actually afford, and journal every paper trade like a real one.

> **TIP**
> Your first 30 trades should be practice. Make all 30 on paper, review them weekly, and only consider real money when you can honestly say: "I followed my plan on almost every trade, and I understand why each one won or lost."

Goals That Are Process-Based, Not Money-Based

A **money goal** says: "I will make $500 this month." You cannot control that — the market does not care about your goal, and chasing it pushes people to oversize trades and break rules.

A **process goal** says: "I will take only my one setup, risk 1% or less, place a stop-loss every time, and journal every trade this month." Every part of that is 100% in your control. Hit process goals for months and the money side becomes a fair question; skip them, and any money you make is luck waiting to be returned.

Set goals like these for your first three months:

- Journal 100% of trades, same day.
- Zero trades outside the plan.
- Zero days without a daily stop.
- One weekly review, every week.

Common Beginner Mistakes

- Trading for weeks with no written plan — just feelings and hope.
- Writing a plan, then ignoring it the first time a trade feels exciting.
- Changing the plan mid-trade: moving stops, adding to losers, skipping exits.
- Risking whatever "feels right" instead of a fixed percentage of the account.
- Skipping the journal after losses — exactly the trades that teach the most.
- Setting money goals ("$100 a day") and forcing trades to chase them.
- Judging success by one week instead of by months of journal data.

Chapter Summary

- A trading plan is a business plan for your trading: written in advance, while you are calm.
- A complete plan names what you trade, when you trade, your setups in plain words, entry and exit rules, position size and max risk, a daily stop, and a "never" list.
- Place a stop-loss order on every trade, and never move it further away.
- Risk a small, fixed slice of your account per trade; the 1% rule keeps early lessons cheap.

- A journal records every trade: date, ticker, setup, entry, exit, size, result in dollars and in R, your feelings, and one lesson.
- Review the journal weekly and fix one behavior at a time.
- Paper trade first — your first 30 trades should be practice.
- Use process goals you fully control, not money goals you do not.

Check Yourself

1. What is the difference between a trading plan and a trading journal?
2. Your account is $2,000 and your rule is 1% risk per trade. What is the most one trade may lose if your stop-loss is hit?
3. In that same account, your entry is $50 and your stop-loss is $48. Using your 1% rule, what is the largest position you may take?
4. What is a daily stop, and why does it exist?
5. Why is "journal every trade and take only my one setup this month" a better goal than "make $500 this month"?

Answers: 1) The plan is written before trading and states your rules; the journal is written after each trade and records what you actually did, so you can compare the two. 2) $20 — 1% of $2,000. 3) 10 shares: you risk $2 per share ($50 − $48), and $20 ÷ $2 = 10. 4) A daily stop is a fixed loss limit for the day; when you hit it you stop trading, which keeps one bad, emotional day from wrecking your account. 5) It is a process goal — every part is under your control — while a money goal depends on the market and pushes you to break rules chasing it.

> **RULE**
> Plan the trade before the session, journal the trade after it, review both every week. The traders who survive are not the ones with the fanciest strategy — they are the ones who can prove, in writing, that they followed their own rules.



AA-22

ACCOUNTS, MARGIN, RULES & TAXES

The boring stuff that protects you — margin, day-trading rules, and taxes.

Alpha Academy · Team Alpha Trading

Accounts, Margin, Rules & Taxes: The Boring Stuff That Protects You

Nobody opens a brokerage account dreaming about settlement rules and tax forms. But here is a secret experienced traders know: more beginner accounts are damaged by boring rule mistakes than by bad stock picks. People get accounts restricted for breaking a rule they never heard of, pay interest they did not know they owed, and get a tax surprise in April for trades they made in June.

This chapter explains the machinery under your trading: the two kinds of accounts, how borrowing from your broker really works, the day-trading rule, settlement, and the basic tax rules every US trader must know exist.

After reading it, you will be able to choose between a cash and margin account with your eyes open, and explain a margin call in plain words.

> **NOTE**
> This chapter is education only, from Team Alpha Trading. It is not financial, tax, or legal advice. Tax rules change, broker rules change, and your situation is your own. Use a qualified tax professional for anything that touches your real money and your real tax return.

The Two Kinds of Brokerage Accounts

A **brokerage account** is an account at a licensed company — a **broker** — that lets you buy and sell investments like stocks. You choose between two basic types.

Cash Accounts: Your Money Only

In a **cash account**, you can only trade with money that is actually in the account and fully settled (we explain "settled" below). It is like a prepaid debit card: load $1,000, buy up to $1,000 of stock, and when the money is spent, it is spent. You can never owe the broker money or be charged interest. For most beginners, this is the right starting account — its one main limit, waiting for sale money to settle, is covered in the settlement section below.

Margin Accounts: Your Money Plus a Loan

In a **margin account**, the broker lets you borrow money to trade bigger. **Margin** is the name for trading with borrowed money: you deposit your own money, and the broker adds a loan on top. For US stocks, a federal rule called **Regulation T** (often shortened to **Reg T**) says your first purchase can be up to 50% borrowed — with $10,000 of your own money, you could buy up to $20,000 of stock on day one.

Bigger buying power sounds great. Remember what it is, though: a loan, with interest, secured by your investments. If the investments fall, the debt stays.

How Margin Borrowing Works: A Worked Example

Let's walk through real numbers, slowly.

You deposit $10,000 into a margin account. You buy $20,000 of a stock — $10,000 of your cash plus a $10,000 loan from the broker.

- **If the stock rises 10%:** your position is worth $22,000. Sell, repay the $10,000 loan, and you have about $12,000 (minus interest and fees) — a gain of about $2,000, or 20%, from a 10% move. That doubling is the attraction of margin. It is called **leverage** — using borrowed money to control a bigger position than your cash alone could.
- **If the stock falls 10%:** your position is worth $18,000. Sell, repay the loan, and you have about $8,000 — a loss of about $2,000, or 20%.

Leverage is a multiplier: it multiplies wins, losses, and speed. Beginners usually need *less* speed, not more.

The Interest Nobody Mentions

Borrowed money is not free. Brokers charge **margin interest** — a yearly percentage rate charged on your loan balance. Rates vary by broker and loan size, and they change over time, so check your broker for the current number.

On a $10,000 loan, even a moderate yearly rate means hundreds of dollars a year quietly leaving your account — win or lose. Hold a losing position on margin for months and you are paying rent on a loss.

> **RISK**
> Margin interest is owed in winning months and losing months alike. Many beginners discover it only on a monthly statement. Read your broker's margin rate before you borrow a single dollar.

Maintenance Margin and the Margin Call

Your **equity** is what you actually own: the current value of your investments minus what you borrowed. In our example, if the position is worth $22,000 and the loan is $10,000, your equity is $12,000. Your broker watches that number every day.

Maintenance margin is the minimum equity, as a percentage of the position's value, that your broker requires you to keep. Regulators set a floor (25% for most stocks); most brokers require more — 30%, 40%, sometimes higher for risky stocks.

If your equity falls below that line, you get a **margin call**: a demand to fix the account *now*, by depositing cash or selling positions. Here is the part beginners miss: if you do not act fast enough, the broker may legally sell your investments for you, at whatever price the market offers, without asking — and they will sell the positions they choose, not the ones you would choose.

Worked example: the stock falls 40%. The position is worth $12,000; your equity is $12,000 − $10,000 = $2,000 — only about 17% of the position's value, below the maintenance line. Margin call. And notice: the stock fell 40%, but your own money fell from $10,000 to $2,000 — an 80% loss.

> **RISK**
> With margin, a bad week can end with the broker selling your stocks at the bottom while you are at work. You cannot "wait for it to come back" if the account is no longer yours to wait with. This is why Team Alpha tells beginners: learn in a cash account first.

Margin accounts also unlock advanced features in many brokers — like **short selling** (betting a stock will fall) and some options strategies — which carry their own large risks and get their own chapters. Having the account does not mean you must use them.

The Pattern Day Trader Rule

A **day trade** is buying and selling the same stock (or option) on the same day. Do it a lot in a margin account and an old US rule may apply to you.

The classic rule is called the **Pattern Day Trader** rule (often shortened to **PDT**). Under it, four or more day trades within five business days in a margin account gets you flagged as a pattern day trader — and you must then keep at least **$25,000 in equity** in the account to keep day trading. Drop below $25,000 and the broker can block your day trades until the balance is restored.

Two things every beginner must know now:

- **The rule has been changing.** US regulators have been replacing the old PDT system with new intraday-margin standards — rules based on the risk you actually take during the day instead of one flat $25,000 line — and brokers have been transitioning on their own schedules.
- **Your broker is the final word.** Because of that transition, the exact limits in *your* account depend on *your* broker *right now*. Before placing a fourth day trade, read your broker's current day-trading page or call and ask.

One point has stayed simple through every version: these day-trader rules apply to **margin accounts**. Cash accounts are not flagged — though they have their own settlement limits, next.

Settlement: T+1 and the Good Faith Violation

When you sell a stock, the money does not fully become "yours to reuse" that same second. **Settlement** is the short official waiting period for a trade to be finalized — money and shares formally change hands. Since May 2024, US stock and options trades settle in one business day: **T+1**, trade date plus one business day. In a margin account the broker's loan bridges the gap, so settlement barely matters. In a cash account, it matters a lot.

The plain-words rule: **only trade with money that has settled.** Break it and you can earn a **good faith violation** — you bought a stock with unsettled money, then sold it before that money settled. You sold something you had not fully paid for yet.

Concrete example: On Monday you sell Stock A for $500; that $500 settles Tuesday (T+1). Also on Monday, impatient, you use the $500 to buy Stock B and sell Stock B that same afternoon. You sold before the funds settled: good faith violation.

Brokers track these; a common policy restricts an account to settled-cash-only trading for 90 days after several violations in 12 months. The fix is easy: in a cash account, wait until sale money settles (usually the next business day) before buying something you might sell quickly. Money deposited from your bank and left to settle is always safe to trade with.

Taxes: The Basics Every Trader Must Know Exist

This section is a map, not a manual — it names the tax ideas that exist so nothing ambushes you.

Every Sale Is a Taxable Event

When you sell an investment for more than you paid, you have a **capital gain** — a profit the US government taxes. Sell for less and you have a **capital loss**, which can reduce your taxes in ways a professional can explain. Buying is not taxed; selling is the taxable moment. Every trade you close can show up on your tax return — hundreds of trades means hundreds of line items to handle.

Short-Term vs. Long-Term

How long you held the investment changes how a gain is taxed:

- **Short-term:** you held it for **one year or less**. Day trades and swing trades (trades held days or weeks) are almost always short-term.
- **Long-term:** you held it for **more than one year**.

The two are taxed differently: long-term gains generally get a lower, preferential rate, while short-term gains are generally taxed like regular income from a job. Exact rates depend on your income, filing situation, and current law — and they change — so never plan around a rate from a book or video.

For active beginners the lesson is simple: nearly all your gains will be short-term, and a profitable year of day trading comes with a real tax bill. Set money aside as you go instead of spending every dollar of profit.

The Wash Sale Rule

A **wash sale** is a tax rule that disallows a loss — for now — in a specific situation. If you sell an investment at a loss and then buy a **substantially identical** security (usually the same stock, or an option on it) within 30 days before or after that sale, the IRS (the US tax agency, the **Internal Revenue Service**) says the loss cannot be claimed yet. The window is 61 days total: 30 days before the sale, the sale day, and 30 days after.

Example: You sell 100 shares at a $400 loss on June 10. On June 25 you buy the same stock again because "now it looks good." That is a wash sale. The $400 loss is disallowed for this year's taxes; in many cases it is added to the cost of your new shares, so you may effectively claim it later when you sell for good — but the timing surprise is what hurts beginners.

Day traders hit this rule constantly, because they rebuy the same tickers every day. Worse, your broker's software only sees its own accounts — buy the same stock in a *different* account (including a spouse's, or an IRA retirement account) and the rule can still apply, sometimes permanently with an IRA. This is exactly where a tax professional earns their fee.

Year-End Forms: The 1099

After the year ends, your broker sends a **Form 1099** package (the key part is usually the 1099-B) listing every sale you made: what, when, for how much, and what you paid. The broker sends a copy to the IRS too. Keep yours, expect it in the first months of the year, and do not file before it arrives — corrected versions sometimes follow.

> **NOTE**
> Everything in this tax section is general education, not tax advice. Tax law changes, state taxes differ, and details like wash sales across accounts are genuinely tricky. Before your first serious year of trading, pay for an hour with a tax professional who works with traders — some of the best money a trader spends.

Common Beginner Mistakes

- Opening a margin account because it was the default, without knowing borrowing was turned on.
- Being surprised by margin interest on a monthly statement.
- Thinking a margin call is negotiable — it is not; the broker can sell your positions without asking.
- Making a fourth day trade in a small margin account without checking the broker's current day-trader policy.
- In a cash account, repeatedly buying with unsettled sale money and collecting good faith violations.
- Assuming profits are "tax-free until I withdraw them" — they are taxable when you sell, withdrawal or not.
- Rebuying a stock days after selling it at a loss and expecting to claim that loss this year.
- Trading all year with no money set aside for the tax bill.

Chapter Summary

- A cash account trades only your own settled money: no borrowing, no interest, no margin calls.
- A margin account adds a broker loan: Reg T allows up to 50% borrowing on initial stock purchases, and interest is charged on what you borrow.
- Leverage multiplies outcomes: a 10% move can become roughly a 20% gain — or a 20% loss — on your own money.
- Maintenance margin is the minimum equity you must keep; fall below it and a margin call can force sales at the worst moment.
- The classic Pattern Day Trader rule required $25,000 minimum equity for frequent day traders in margin accounts, but regulators have been replacing it with intraday-margin standards and brokers are transitioning — always check your broker's current rule.
- US trades settle T+1, the next business day. In a cash account, buying with unsettled money and selling before it settles is a good faith violation.
- Every sale is a taxable event. Gains on investments held one year or less are short-term, over one year long-term, and the two are taxed differently.
- The wash sale rule disallows a loss if you buy a substantially identical security within 30 days before or after selling at a loss.
- Your broker sends a Form 1099 after year-end listing your sales; the IRS gets a copy too.

Check Yourself

1. What is the biggest practical difference between a cash account and a margin account?
2. You buy $20,000 of stock using $10,000 of your own money and a $10,000 loan. The stock falls 10%. Roughly how much of your own money have you lost, before interest and fees?
3. What is a margin call, and what can the broker do if you do not respond?
4. In a cash account, what is a good faith violation? Give the plain-words version.
5. You sell a stock at a $400 loss on June 10 and buy the same stock again on June 25. What rule applies, and what happens to the loss?

Answers: 1) A cash account trades only your own settled money; a margin account lets you borrow from the broker — with interest, and with the broker able to force sales if your equity falls too low. 2) About $2,000, or 20%: the position drops to $18,000, you still owe the $10,000 loan, leaving about $8,000. 3) A margin call is the broker's demand to restore your equity when it falls below the maintenance requirement; if you do not act in time, the broker may sell your positions without your permission. 4) You bought a stock with money from a sale that had not settled, then sold it before the money settled — you sold something you had not fully paid for. 5) The wash sale rule: the $400 loss is disallowed for now because you rebought a substantially identical security within 30 days after the sale (inside the 61-day window).

> **RULE**
> Boring is protective. Know which account you have, know what you owe, know the day-trading and settlement rules at your broker, and let a tax professional handle April. The traders who last are the ones the fine print never surprises.



AA-23

SAFETY FIRST

Pump-and-dumps, fake gurus, and phishing — how beginners get robbed, and how not to.

Alpha Academy · Team Alpha Trading

Safety First: Scams, Bad Advice & Protecting Your Money

Here is a hard truth about learning to trade: the market is not the only thing that can take your money. The moment you show interest in trading online, a second opponent appears — people whose entire business is separating beginners from their cash. They run ads, group chats, and fake trading platforms. They are patient, friendly, and very good at what they do.

This chapter teaches you how the most common traps work, how to check whether a broker is real, and the simple security habits that protect your account. None of it is exciting; all of it is worth more than any single trade you will ever make.

After reading it, you will be able to spot a pump-and-dump, explain why "guaranteed profits" is always a lie, verify a broker free in two minutes, and protect your account so a stolen password alone cannot empty it.

> **NOTE**
> This chapter is education only, from Team Alpha Trading. If you believe you are being scammed right now: stop sending money, save every message, and contact your bank and local authorities — speed matters more than embarrassment.

Pump-and-Dump: The Oldest Trick in the Market

A **pump-and-dump** is a scheme that inflates a cheap stock's price with hype so the organizers can sell their own shares at the top. It works in four steps:

1. **The setup.** The organizers quietly buy a huge amount of a tiny, cheap stock — often a **penny stock**, a stock trading for under a few dollars a share, from a company almost nobody has heard of. Few people trade it, so even modest buying can move its price.
2. **The pump.** The hype begins: posts, group chats, and videos all shout the same story. "This stock is about to explode." "Secret contract announcement coming." "Get in before Friday."
3. **The crowd arrives.** Beginners rush in and buy, pushing the price up fast — on a chart it looks like a rocket. People who bought early brag about their gains, pulling in even more buyers.
4. **The dump.** The organizers sell everything into that demand. Now there are no big buyers left — only late beginners holding shares of a weak company. The price collapses, often within hours, and usually never comes back.

The cruel detail: the early "proof" screenshots are real. The scheme *needs* some regular people to make money early — their excitement is the advertising. If someone shows you a winning trade in a tiny unknown stock and urges you to buy it too, ask who benefits from your buying. In a pump-and-dump, it is the person urging you.

> **RULE**
> The smaller and more unknown the stock, and the louder the urgency to buy it *right now*, the more likely you are looking at the exit door for someone else's scheme — not an opportunity.

Fake Gurus and Guaranteed Profits

A **guru**, in trading slang, is someone who sells the image of being a master trader — courses, subscriptions, "private groups" — often from a rented sports car. Some teachers are legitimate. The fraud version shares clear tells: profits are always huge, losses never shown, the lifestyle is the product, and the pressure is on *you* to pay before the "discount" ends.

The most reliable tell is a promise.

> **RULE**
> Anyone guaranteeing profits is lying. Not exaggerating — lying. Real trading always involves risk of loss, and honest teachers say so in writing. US regulators require it. The words "guaranteed," "risk-free returns," "we never lose," or "double your money" attached to trading mean one thing: walk away.

Ask what a real business can answer: Can I see a full, verified track record including the losses? What exactly do I get? Can I cancel? If the answers are screenshots, emojis, and a countdown timer, you have your answer.

Signal Scams in Discord, Telegram, and Group Chats

A **signal** is a message telling followers exactly what to buy or sell and when — "BUY XYZ NOW, target $5." Signal groups sell the dream of skipping the learning: just copy the expert.

Here is how the scam versions make money:

- **You are the exit.** The operator buys a cheap stock first, sends the "signal" to thousands of followers, and sells into the wave of their buying. That is a pump-and-dump wearing a subscription.
- **The record is edited.** Losing calls get deleted. Winning calls get screenshotted and reposted forever. What looks like 90% accuracy is just a trash can that works.
- **The free group is the funnel.** The free chat builds trust for a few weeks, then the real product appears — a paid VIP room or a "special" broker link — and that is where the money leaves you.

Copying signals also fails honestly, even without a scam: by the time a message reaches you, the price has often already moved, and you learn nothing — so when the group goes silent, you are exactly as unskilled as the day you joined, only poorer. Learning to fish beats renting fish photos.

Romance and ”Pig Butchering” Scams

In a **pig butchering** scam, a criminal builds a slow, friendly — often romantic — online relationship over weeks or months (the "fattening"), then introduces a "trading opportunity" and guides the victim onto a fake trading app where fake profits grow beautifully (the setup for the "slaughter"). Small withdrawals may even work at first, to build trust. Then comes a large deposit — and when the victim tries to withdraw the big balance, the app demands fees or goes silent, and every dollar is gone. If someone you met online — however kind, however long you have talked — steers you toward a platform they recommend, treat it as this scam until proven otherwise.

Fake Brokers and Withdrawal Traps

A **fake broker** is a website or app imitating a real trading platform but run by criminals. The screens show your "balance" growing; the support chat is friendly. The catch appears at withdrawal time: you must first pay a "release fee," a "tax payment," or a "verification deposit." Pay it, and a new fee appears. There was never any trading — the numbers were typed into a screen.

Defenses are boring and total: only use brokers you found yourself through official channels (never a link a stranger sent), and test any new platform by withdrawing a small amount early. A real broker lets your money leave. That is the whole test.

Phishing: Stealing Your Login

Phishing means tricking you into handing over your password — usually with a fake email, text, or website that looks exactly like your broker's. "Your account will be locked! Verify now." You type your login into the fake page, and the criminal logs into the real one as you.

Slow down and check three things every time:

- **The sender and the address.** The login page must be your broker's exact website address — type it yourself or use the official app instead of clicking message links.
- **The urgency.** Lock-outs and "act in 5 minutes" pressure are the costume every phishing message wears.
- **The request itself.** Your broker will never ask for your full password by email, text, or chat. Anyone who does is not your broker.

Account Security Habits That Actually Work

Do these once, the day you open your account:

- **Use a unique password** — a long one used for this broker and nowhere else. A reused password is a key you have already handed out.
- **Turn on two-factor authentication (2FA). 2FA** means logging in takes two proofs: your password plus a one-time code, usually from an app on your phone. With 2FA on, a stolen password alone is not enough to get in. An authenticator app beats text-message codes, because criminals can sometimes hijack a phone number.
- **Never share your login** — not with a "mentor," not with an "account manager," not with anyone offering to trade for you. A licensed professional who trades client money uses official firm accounts and never needs your personal password.
- **Be suspicious of strangers asking you to install screen-sharing or "trading support" software.** Watching your screen is one step from controlling it.

> **TIP**
> Bookmark your broker's real website and only log in from that bookmark or the official app. This one habit defeats most phishing — fake links simply never get clicked.

Verify Any Broker in Two Minutes: FINRA BrokerCheck

In the US, legitimate brokers are registered with regulators, and you can check for free. **FINRA** — the Financial Industry Regulatory Authority — oversees US brokerage firms, and its free tool is called **BrokerCheck** (search for "FINRA BrokerCheck" and use the official FINRA website). Type in the firm or person's name to see whether they are registered, how long they have been in business, and whether they have a history of complaints or regulatory actions.

No registration, a brand-new firm, or a record full of complaints ends the conversation. A real broker also has a real address and customer service you can reach without the person who recruited you.

Money Rules That Keep You Safe

Scams are not the only threat. Honest mistakes with the wrong money are just as destructive.

- **Never trade on borrowed money.** Credit cards, personal loans, or a margin loan taken "to get started" mean you can lose more than you have, plus interest. If losing it would put you in debt, it was never trading money.
- **Never trade rent money** — or bill money, food money, or tuition. Money with a deadline attached forces you to sell at the worst moments and panic at normal price moves.
- **Keep an emergency fund outside your trading account.** An **emergency fund** is a separate savings cushion — many households aim for a few months of basic expenses — in a plain bank savings account. It handles a car repair or a lost job without raiding your trading account mid-trade, and makes sure a trading loss can never become a life emergency.

> **RISK**
> The line between "trading loss" and "life problem" is drawn by which money you used. Trade only with money you could lose completely without changing your life, and a bad month stays a lesson instead of becoming a crisis.

Red-Flags Checklist

Run any opportunity, group, or platform against this table before money moves.

Red flag	What it usually means
Guaranteed or "risk-free" profits	A lie — no real trading can promise this
Pressure to act in the next few minutes	They need you excited, not thinking
A tiny unknown stock everyone must buy now	A pump-and-dump looking for exit buyers
Profits shown, losses never mentioned	An edited record, not a track record
Met online; romance plus a trading tip	Pig butchering — assume scam
Platform found through a stranger's link	Possibly a fake broker
Withdrawal requires paying a fee first	Withdrawal trap — your money is gone
"Manager" asks for your login or screen share	Account takeover attempt

Red flag	What it usually means
Firm is not on FINRA BrokerCheck	Unregistered — walk away
Winning requires recruiting other people	The recruits are the product

Common Beginner Mistakes

- Joining a signal group instead of learning, then copying trades they do not understand.
- Believing profit screenshots without asking to see the losses.
- Signing up with a broker through a link a stranger sent in a chat.
- Using the same password for the broker as for email and shopping sites.
- Leaving 2FA off because it takes ten extra seconds to log in.
- Sending "one more deposit" to unlock a withdrawal that will never come.
- Funding a trading account with a credit card or bill money.

Chapter Summary

- A pump-and-dump hypes a tiny cheap stock so organizers can sell into the crowd's buying; late buyers hold the collapse.
- Anyone guaranteeing profits is lying — real trading always carries risk.
- Signal groups can be pump-and-dumps in disguise, with edited records and followers used as exit buyers.
- Pig butchering pairs a fake online relationship with a fake platform; withdrawal time is when the trap closes.
- Fake brokers show fake balances and invent fee after fee at withdrawal; test any new platform with a small early withdrawal.
- Phishing steals logins through fake messages and look-alike sites; type your broker's address yourself or use the official app.
- Protect the account itself: unique password, 2FA on, and never share your login.
- Verify any US broker or salesperson free with FINRA BrokerCheck before sending a dollar.
- Keep rent money, borrowed money, and your emergency fund separate from trading money.

Check Yourself

1. In a pump-and-dump, who makes the money, and who loses it?
2. A trading coach advertises "guaranteed 30% monthly returns, risk-free." What do you conclude, and why?
3. You try to withdraw from a new trading app and are told to first pay a $300 "release fee." What is almost certainly happening?
4. What is two-factor authentication, and why does it protect you even if your password is stolen?
5. Name the free tool for checking whether a US broker or salesperson is registered, and who runs it.

Answers: 1) The organizers make the money — they bought cheap before the hype and sell into the crowd's buying; the late buyers lose, because the price collapses once the organizers have sold. 2) The claim is a lie: no real trading can guarantee profits or be risk-free, so the advertiser is a fraud or reckless — walk away. 3) A withdrawal trap on a fake (or criminal) platform: there is no real balance to release, the fee is simply the next amount they intend to steal, and paying it will produce another fee, not your money. 4) 2FA requires two proofs at login — your password plus a one-time code, usually from an app on your phone — so a criminal with only your password still cannot get into your account. 5) BrokerCheck, the free lookup tool run by FINRA, the Financial Industry Regulatory Authority.

> **RULE**
> Slow is safe, and safe is fast enough. Verify the broker, doubt the promise, protect the login, and only trade money you can afford to lose. Keeping your money is the first trading skill — everything else builds on it.



PP-01

WORKBOOK 1
FOUNDATIONS

Exercises for AA-01 → AA-06 — with full worked answers at the back.

Alpha Academy Practice Pack · Team Alpha Trading

Workbook 1: Market Foundations (AA-01 → AA-06)

Reading about the market is step one. Doing the math yourself is where it sticks. This workbook gives you hands-on practice for the first six Alpha Academy modules — what trading is, how the market works, stocks, orders, charts, and the language traders speak.

How to use this workbook:

- Work with a pencil, not a pen. Mistakes here are free — that is the whole point.
- Do the exercises in order; each module section matches the module with the same number.
- Finish a whole module section before checking the **## Answers** at the very end. Peeking early steals the learning.

> **NOTE**
> Every company and price in this workbook is made up for practice, except where a real index or rule is named. This is education only, not financial advice.

AA-01 — Welcome: Your First Steps Into the Market

Calculations

1. You buy 25 shares of a stock at $32 each. Later you sell all 25 at $38 each. How much did you spend, how much did you get back, and how much did you make?
2. You buy 40 shares at $25 each. The price falls and you sell all 40 at $19 each. How much did you spend, how much did you get back, and how much did you lose?

Fill in the Blank

3. Practicing in a simulator with real prices and pretend money is called _____ trading.
4. The three skills every trader builds are understanding, _____, and _____.

Spot the Mistake

5. Marcus says: "Most beginners make good money in their first year, so my goal for year one is to double my account." What is wrong with his thinking?

Scenario

6. Tom feels 100% sure a stock is about to rise. He plans to skip paper trading entirely and start trading with next month's rent money. Name the two rules from AA-01 that he is breaking.

AA-02 — What Is the Stock Market?

Calculations

7. An index sits at 4,000. Over the week it rises 2%. What is its new value?
8. A stock closes at $45 on Monday and $49.50 on Tuesday. What percentage did it gain on Tuesday?

Fill in the Blank

9. The very first time a company sells stock to the public is called an _____ (initial public offering).

10. An _____ is a scoreboard number that tracks a group of stocks at once. You cannot buy it directly — only funds and products that track it.

Spot the Mistake

11. Priya buys 10 shares of a company through her app, two years after its IPO, and says: "I just gave the company $600 to help it grow." What is wrong with her statement?

Scenario

12. At 7:45 AM, a stock you follow jumps 6% before the open on light trading. Your friend wants to buy it immediately. Which session is this, and what warning from AA-02 applies?

AA-03 — Stocks A–Z

Calculations

13. A company trades at $25 per share and has 80,000,000 shares outstanding. What is its market cap, and which size bucket (small-cap, mid-cap, or large-cap) does it fall into?
14. You own 150 shares of a company that pays a dividend of $0.40 per share, four times a year. How much cash do you receive each quarter, and how much over a full year?
15. You own 30 shares at $120 each. The stock does a 3-for-1 split. How many shares do you own afterward, at roughly what price each, and what is your total holding worth?
16. A company earns a net income of $3,000,000 and has 2,000,000 shares outstanding. What is its EPS (earnings per share)?

Fill in the Blank

17. The shares actually available for the public to trade — shares outstanding minus the shares locked up with insiders and major holders — are called the _____.

Spot the Mistake

18. Leo says: "Company A costs $600 a share and Company B costs $15 a share, so Company A is clearly the bigger company." What is wrong with his reasoning?

Scenario

19. A tiny company has only 4 million shares in its float. One morning a viral post sends thousands of new buyers chasing those shares at once. What does AA-03 predict will happen to the price, and why should a beginner be extra careful here?

AA-04 — How Trading Actually Works

Calculations

20. A stock shows a bid of $74.96 and an ask of $75.04. (a) What is the spread? (b) You buy 50 shares at the ask and immediately sell them at the bid, with the price never moving. How much do you lose?
21. In a margin account, you put up $2,000 of your own money and borrow another $2,000 under Regulation T, controlling $4,000 of stock. The stock falls 10%. How many dollars did you lose, what percentage of YOUR money is that, and how much do you still owe the broker (before interest)?
22. A famous stock costs $300 per share. Your broker offers fractional shares, and you invest $75. What fraction of one share do you own?

Fill in the Blank

23. A _____ order buys or sells only at your chosen price or better — never worse. It guarantees your price, but not that the trade will happen at all.
24. US stock trades settle one business day after the trade date. This is called _____ settlement.

Spot the Mistake

25. Ben bought a stock at $60 and set a stop-limit order with a stop of $55 and a limit of $54.80, saying: "Now my loss is guaranteed to stop at exactly $55." Name two things wrong with that sentence.

Scenario

26. You buy a stock at $45. You want automatic protection: if the price falls to $41, you want to sell right away, accepting whatever price the market gives you at that moment. Which order type do you place, and what does it turn into the moment $41 trades?

AA-05 — Reading Charts & Candlesticks

Calculations

27. A daily candle opens at $84, reaches a high of $88, a low of $83, and closes at $86. Describe the candle: the body (from where to where, and how tall), the top wick (how tall), the bottom wick (how tall), and its color.
28. A stock's average daily volume is 800,000 shares. Today it trades 2,400,000 shares. How many times its average volume is that, and what does that tell you about today's move?

Fill in the Blank

29. A candle whose open and close are nearly the same price, so the body almost disappears and it looks like a plus sign, is called a _____.
30. The number of shares that changed hands during a period — the bars along the bottom of the chart — is called _____.

Spot the Mistake

31. A stock opens much higher than yesterday's close, drifts down a little during the day, and prints a red candle — yet it still finishes up nicely on the day. Nina says: "That can't be right. A red candle means the stock is down today." What is she misunderstanding?

Scenario

32. You bought a stock planning to hold it for a year. Now you check its 1-minute chart every morning and panic at every tiny red candle. What does AA-05 tell you to do instead?

AA-06 — The Language of the Market

Calculations

33. Your account once peaked at $12,000. It is now worth $9,600. How many dollars have you fallen from the peak, and what percentage drawdown are you in?
34. You plan a trade where you could lose $150 if you are wrong and make $450 if you are right. What is your risk/reward, written as "1 to ___"?

35. In her paper-trading journal, Rosa won 7 of her 20 trades. What is her win rate?

Fill in the Blank

36. A price level where a falling stock tends to stop and bounce — a floor under the price — is called _____.
37. You are _____ when you own something and profit if its price rises.

Spot the Mistake

38. Omar won 8 of his last 10 trades — an 80% win rate — but his account is somehow DOWN money overall. He says: "That's impossible with an 80% win rate." Explain why it is entirely possible.

Scenario

39. After rising for months, a stock drops 11% from its recent high over two weeks. Your group chat is calling it "a total crash." Using the ladder from AA-06, what is the correct word for this move, and why is it neither a crash nor a bear market?

Answers

Worked solutions, module by module. Check your arithmetic against each step — if your final number matches but your steps do not, redo it until both match.

AA-01 — Welcome

- **1.** Cost: 25 × $32 = $800. Sale: 25 × $38 = $950. Profit: $950 − $800 = **$150**.
- **2.** Cost: 40 × $25 = $1,000. Sale: 40 × $19 = $760. Loss: $1,000 − $760 = **$240 lost**.
- **3. Paper** trading.
- **4. Execution** and **self-control**.
- **5.** He has it backwards. Most beginners LOSE money in their first year. The realistic year-one goal is learning and survival — keeping the account alive while building skill — not doubling anything.
- **6.** Rule one: paper trade before real money, always — no matter how sure you feel. Rule two: only ever trade money you can afford to lose completely. Rent money fails that test by definition.

AA-02 — What Is the Stock Market?

- **7.** 2% of 4,000 = 4,000 × 0.02 = 80. New value: 4,000 + 80 = **4,080**.
- **8.** Gain: $49.50 − $45 = $4.50. Percentage: $4.50 ÷ $45 = 0.10 = **up 10%**.
- **9. IPO**.
- **10. Index**.
- **11.** After the IPO, shares trade between buyers and sellers. Her $600 went to the person who SOLD her the shares — the company received nothing.
- **12.** This is the **pre-market** session. It is thin — few people trading — so prices jump around more and fills cost more. Beginners should stick to regular hours (9:30 AM–4:00 PM Eastern) until the basics are cold.

AA-03 — Stocks A–Z

- **13.** Market cap = $25 × 80,000,000 = $2,000,000,000 = **$2 billion**. That lands at the bottom edge of **mid-cap** (about $2 billion to $10 billion).
- **14.** Each quarter: 150 × $0.40 = **$60**. Over a year: $60 × 4 = **$240**. (And remember: dividends are never guaranteed — this math assumes the company keeps paying.)
- **15.** Shares: 30 × 3 = **90 shares**. Price: $120 ÷ 3 = **$40 each**. Total: 90 × $40 = **$3,600** — exactly what you had before (30 × $120 = $3,600). A split changes slice count and price per slice, never your total value.
- **16.** EPS = $3,000,000 ÷ 2,000,000 = **$1.50 per share**.
- **17.** The **float**.
- **18.** Share price alone says almost nothing about size — you are missing how many shares exist. Size is market cap: share price × shares outstanding. A $15 stock with hundreds of millions of shares can be far bigger than a $600 stock with few shares.
- **19.** Expect wild, jumpy price action. With only 4 million shares available to chase, a wave of buying has very few shares to buy, so the price can explode upward — and crash just as fast when the crowd leaves. Small float = touchy stock, and beginners get hurt mistaking that excitement for opportunity.

AA-04 — How Trading Actually Works

- **20.** (a) Spread: $75.04 − $74.96 = **$0.08**. (b) You lose the spread on every share: 50 × $0.08 = **$4.00 lost**, with the price never moving at all. That is the hidden cost of a wide spread.
- **21.** The $4,000 position falls 10%: $4,000 × 0.10 = **$400 lost**. As a share of YOUR money: $400 ÷ $2,000 = 0.20 = **20% of your money gone on a 10% move**. You still owe the full **$2,000 loan**, plus interest. That magnification is leverage working in reverse.
- **22.** $75 ÷ $300 = 0.25 — you own **a quarter (0.25) of one share**.
- **23. Limit** order.
- **24. T+1**.
- **25.** Wrong twice. First, a stop-limit order only sells at the limit price or better — if the stock gaps straight through $54.80, the order may never fill at all, so nothing is "guaranteed." Second, even a plain stop order does not promise an exact exit price: once triggered it becomes a market order and fills at the next available price, which can be well below the stop in a fast drop.
- **26.** Place a **stop order (stop-loss) at $41**. The moment the stock trades at $41, it wakes up and becomes a **market order**, selling at the next available price — about $41, possibly a little lower in a fast fall.

AA-05 — Reading Charts & Candlesticks

- **27.** Body: from the open $84 to the close $86 — **$2 tall**. Top wick: from $86 up to the high $88 — **$2**. Bottom wick: from $84 down to the low $83 — **$1**. Color: **green**, because the close ($86) is above the open ($84).
- **28.** 2,400,000 ÷ 800,000 = **3 times average volume**. A move backed by triple the usual crowd has real conviction behind it — far more weight than the same move on thin volume.
- **29. Doji**.
- **30. Volume**.
- **31.** A red candle only compares that candle's close to that candle's open. This stock opened high and drifted down a little, so the candle is red — but measured against yesterday's close, the stock is still up on the day. Color says nothing about yesterday.
- **32.** Match the timeframe to the plan. A one-year hold lives on the daily, weekly, and monthly charts. The 1-minute chart is noise for that plan — staring at it only shakes you out of a trade you meant to keep.

AA-06 — The Language of the Market

- **33.** Fall from peak: $12,000 − $9,600 = **$2,400**. Drawdown: $2,400 ÷ $12,000 = 0.20 = **a 20% drawdown**.
- **34.** $450 ÷ $150 = 3. Risk/reward = **1 to 3**.
- **35.** 7 ÷ 20 = 0.35 = **a 35% win rate**.
- **36. Support**.
- **37. Long**.
- **38.** Win rate alone does not decide success — the SIZE of wins versus losses does. If Omar's 8 wins averaged +$20 each (+$160 total) but his 2 losses averaged −$150 each (−$300 total), he is down $140 despite winning 80% of the time. Risk/reward matters as much as how often you win.

- **39.** It is a **correction** — a drop of about 10% or more from a recent high. It is not a **bear market**, which takes roughly 20% down, and not a **crash**, which is a sudden, violent fall arriving in days with panic in the air. A two-week 11% slide is a correction: serious, but normal market weather.

> **RULE**
> Do not move to the next workbook until you can do every calculation in this one without looking. The market will not wait while you figure out the math.



PP-02

WORKBOOK 2
ANALYSIS

Exercises for AA-07 → AA-10 — technicals, patterns, fundamentals, catalysts.

Alpha Academy Practice Pack · Team Alpha Trading

TEAM ALPHA TRADING

Workbook 2: Analysis (AA-07 → AA-10)

You know what a stock is and how to place an order. This workbook trains the next skill: reading what is in front of you. Charts and indicators, patterns and price action, a company's real financials, and the news forces that move everything.

How to use this workbook:

- A pencil and a calculator are all you need. Show your steps — the steps are where the learning lives.
- Each section matches the module with the same number (AA-07 through AA-10). Finish a section before checking it.
- All answers are in the **## Answers** section at the very end, with the arithmetic worked out in full.

> **NOTE**
> Every company and price in this workbook is invented for practice, except where real indexes, reports, or rules are named. This is education only, not financial advice.

AA-07 — Technical Analysis A–Z

Calculations

1. A stock's last five daily closing prices are $50, $52, $54, $53, and $56. (a) Calculate the 5-period simple moving average (SMA). (b) Today's close is $56 — is it above or below the SMA, and what small sign does that give?
2. A stock ran from $60 up to $90. Using the Fibonacci retracement levels from AA-07, where is the 50% retracement level? Show the steps.
3. A stock's ATR (average true range) is $1.20. A move of $3.60 in one day would equal how many "average daily wiggles"?
4. A stock breaks above a level it failed at for a month, closing the day on 900,000 shares. Its average daily volume is 1,500,000 shares. (a) Today's volume is what percentage of its average? (b) Does that volume confirm the breakout or make you doubt it? Why?

Fill in the Blank

5. The average price of a stock for the day so far, weighted by how many shares traded at each price, is called _____.
6. An indicator that swings back and forth within a set range — like RSI — is called an _____.

Spot the Mistake

7. Zoe's RSI reading just hit 72, so she immediately sells everything she owns in that stock, saying: "Overbought means it MUST fall now." What is wrong with her reasoning?
8. Sam loads RSI, MACD, and three other oscillators onto his chart "so all five can confirm each other before I trade." What rule from AA-07 is he breaking, and why?

Scenario

9. It is noon. A stock trades at $122 while its VWAP sits at $120.50. On the daily chart, price is above both its 50-day and 200-day moving averages, which are sloping up. In one or two sentences, give the honest AA-07 summary: who controls the day so far, what the big picture trend is, and what you still cannot conclude.

AA-08 — Chart Patterns & Price Action

Reading the Chart

10. A stock's swings print in this order: swing high of $72, swing low of $64, swing high of $69, swing low of $60, swing high of $66. Is this uptrend, downtrend, or sideways structure? Name the two things you checked.
11. A stock has bounced between a support zone around $25 and a resistance zone around $31 for three months. (a) How wide is the range in dollars? (b) The width is what percentage of the support price?

Fill in the Blank

12. In a double top, the low point between the two peaks is called the _____. The pattern only counts once price breaks through it.
13. An _____ triangle has a flat ceiling (resistance) with rising lows underneath it. Traders watch for a break up through the ceiling.

Spot the Mistake

14. At 10 AM a stock pokes $0.30 above its resistance level on light volume, then falls back into its range by noon and closes inside it. Jake says: "Textbook breakout — it crossed the line!" What actually happened, and what two things should Jake have waited for?
15. Mia draws her support as one exact line at $50.00. Price dips to $49.70 for an hour, then bounces and rallies. Mia panics anyway, saying "support broke." What is she misunderstanding about how levels work?

Scenarios

16. A stock breaks above $60 resistance and closes at $61.20 on double its average volume. Two days later it falls back to $60.40 — and bounces upward instead of breaking down. In AA-08's terms, what did that dip just demonstrate?
17. After a long uptrend, a stock forms a modest peak, then a higher peak, then a second modest peak about the height of the first. Then it breaks below the line connecting the valleys under the peaks. What pattern formed, and what completed it?

AA-09 — Fundamental Analysis A–Z

Calculations

18. Mini balance-sheet exercise. Harbor Snacks reports the following: **assets** of $12,000,000 and **liabilities** of $7,000,000. (a) Using the rule Assets = Liabilities + Equity, what is Harbor's equity? (b) A year later its assets have grown to $14,000,000 and its liabilities are still $7,000,000. What is its equity now?

19. A company earns net income of $4,000,000 and has 800,000 shares outstanding. Its stock trades at $75. (a) What is its EPS? (b) What is its P/E ratio?
20. A company reports revenue of $20,000,000, gross profit of $8,000,000, and net income of $2,000,000. (a) What is its gross margin? (b) What is its net margin?
21. A company's revenue was $12,000,000 last year and $15,000,000 this year. What was its revenue growth, in percent?
22. A stock pays a yearly dividend of $1.50 per share and trades at $50. What is its dividend yield?
23. A company has 1,000,000 shares outstanding and earns $1,600,000. (a) What is its EPS? (b) The company buys back 200,000 of its own shares and retires them, and earnings stay at $1,600,000. What is the new EPS? (c) In one sentence, why did EPS change even though earnings did not?

Fill in the Blank

24. The financial statement that tracks the real cash moving in and out of the company — actual money, not accounting math — is the _____ statement.
25. Whatever protects a company from competitors — a brand people trust, a product that is painful to switch away from, being the biggest, a patent — is called a _____.

Spot the Mistake

26. A stock on Tom's watchlist has a P/E ratio of 6 — by far the lowest he can find. He buys it, saying: "Cheapest P/E out there. Guaranteed bargain." What is wrong with his reasoning?

Scenario

27. Apex Gear reports a profit of $2,000,000 for the year — but its bank account actually SHRANK during the year, because it spent $3,000,000 in cash on new machines and trucks. A classmate says: "Impossible. The company must be lying about its profit." Using AA-09, explain why both numbers can be perfectly true.

AA-10 — What Moves Markets

Calculations

28. The S&P 500 closes at 5,200. A frightening headline hits overnight and the index falls 3% the next day. What does it close at?
29. You own five stocks worth $2,000 each. Four of the five are Technology companies. (a) How many dollars do you have riding on the Technology sector? (b) That is what percentage of your whole portfolio?
30. A company borrows $1,000,000 for one year. (a) At a 3% interest rate, how much interest does it pay for the year? (b) At an 8% rate? (c) How much MORE per year do the high rates cost the company? (This is the Fed's seesaw, in dollars.)

Fill in the Blank

31. The monthly government report that measures inflation — the rising cost of a standard basket of everyday goods and services — is the _____ (Consumer Price Index).
32. After a company reports its results, its leaders give their own forecast for the coming months. That forecast is called _____, and it often moves the stock price more than the results themselves.

Spot the Mistake

33. The headline reads: "Company beats earnings expectations!" — and the stock falls 6% that day. A beginner says: "That headline has to be a misprint. Good news can't make a stock fall." Explain why the headline and the fall can both be real.

34. The VIX is sitting at 38. Ben says: "A VIX that high means the market is definitely going down tomorrow." What does a high VIX actually tell you, and what does it NOT tell you?

Scenarios

35. At 8:30 AM, the CPI report comes in much hotter than expected — inflation is running faster than traders hoped. Walk the AA-10 chain in order: (a) what do traders now expect the Fed to do with interest rates? (b) name two reasons stocks often fall on that expectation.

36. On Monday you plan to buy a stock you have been studying. Its earnings report comes out Tuesday after the close — the first earnings report you would ever hold through. What does AA-10 advise, and why?

Answers

Worked solutions, module by module. Compare both your final numbers and your steps.

AA-07 — Technical Analysis A–Z

- **1.** (a) Add the closes: $50 + $52 + $54 + $53 + $56 = $265. Divide by 5: $265 ÷ 5 = **$53 SMA**. (b) The close of $56 is **above** the $53 line — a small sign of short-term strength: recent buyers are paying more than the recent average.
- **2.** The full move is $90 − $60 = $30. Half of the move is $30 × 0.50 = $15. Retracing 50% from the top: $90 − $15 = **$75**.
- **3.** $3.60 ÷ $1.20 = **3 average daily wiggles** — a big day for this stock, roughly three normal days of travel squeezed into one.
- **4.** (a) 900,000 ÷ 1,500,000 = 0.60 = **60% of average volume**. (b) It makes you **doubt** the breakout. Volume confirms moves: a real breakout wants a crowd bigger than usual, not a smaller one. This one had little commitment behind it and is more likely to fizzle.
- **5. VWAP** (Volume-Weighted Average Price).
- **6. Oscillator**.
- **7.** "Overbought" (RSI above 70) is a convention meaning momentum is stretched — not a law that price must fall. In a strong uptrend, RSI can sit above 70 for days while price keeps climbing. Zoe treated a weather report like a guarantee.
- **8.** The beginner stack rule: one trend tool, VWAP, and at most ONE oscillator — plus volume. His five oscillators mostly repackage the same price data, so they do not give five independent confirmations; they give the same hint five times and clutter the chart. If an indicator answers no new question, it does not go on the chart.
- **9.** Buyers control the day so far: price ($122) sits above VWAP ($120.50), meaning today's participants have paid more than the day's average price. The big picture trend is up, with price above its rising 50-day and 200-day averages. What you cannot conclude: that price will keep rising. Technical analysis describes what has happened — it never predicts what happens next.

AA-08 — Chart Patterns & Price Action

- **10. Downtrend structure.** The highs are falling — $72, then $69, then $66 (lower highs) — and the lows are falling too — $64, then $60 (lower lows). "LH and LL" is a staircase going down.
- **11.** (a) Width: $31 − $25 = **$6**. (b) $6 ÷ $25 = 0.24 = **24%** of the support price. That is a wide box — the same stock is 24% more expensive at the ceiling than at the floor, which is exactly why traders care where inside a range they buy.
- **12. Neckline**.
- **13. Ascending** triangle.
- **14.** That was a **failed (false) breakout**. A wick poking through a level means almost nothing. Jake should have waited for (1) a **close** on the other side of the level, and (2) **rising volume** to show real conviction. Traders who chased the poke got trapped and likely sold as it fell back.
- **15.** Support and resistance are **zones**, not exact lines. Thousands of orders cluster at slightly different prices around a level — $49.70, $50.10, $49.90. A dip a few dimes into the zone is normal behavior, not a break. Price entering the zone is what matters, not price touching one magical penny.

- **16.** A **successful retest showing role reversal**: the old $60 resistance flipped and acted as new **support**. The sellers who defended $60 on the way up are gone, and buyers who missed the breakout bought the dip there.
- **17. Head and shoulders** — left shoulder, head, right shoulder. The pattern completed when price **broke below the neckline**, the line connecting the valleys under the peaks.

AA-09 — Fundamental Analysis A–Z

- **18.** (a) Equity = Assets − Liabilities = $12,000,000 − $7,000,000 = **$5,000,000**. (b) $14,000,000 − $7,000,000 = **$7,000,000**. The owners' slice grew by $2,000,000 because everything the company gained went to equity while its debts stayed flat.
- **19.** (a) EPS = $4,000,000 ÷ 800,000 = **$5.00 per share**. (b) P/E = $75 ÷ $5 = **15**. Investors are paying $15 for each $1 of yearly profit.
- **20.** (a) Gross margin = $8,000,000 ÷ $20,000,000 = 0.40 = **40%** — 40 cents of every sales dollar survives after making the product. (b) Net margin = $2,000,000 ÷ $20,000,000 = 0.10 = **10%** — 10 cents of every dollar survives as final profit.
- **21.** Growth = ($15,000,000 − $12,000,000) ÷ $12,000,000 = $3,000,000 ÷ $12,000,000 = 0.25 = **25% revenue growth**.
- **22.** Dividend yield = $1.50 ÷ $50 = 0.03 = **3%**. (And dividends are never guaranteed — the company can cut or cancel this at any time.)
- **23.** (a) EPS = $1,600,000 ÷ 1,000,000 = **$1.60**. (b) Shares after the buyback: 1,000,000 − 200,000 = 800,000. New EPS = $1,600,000 ÷ 800,000 = **$2.00**. (c) The same profit is now divided among fewer shares, so each remaining share owns a bigger slice of the company — that is the whole point of a buyback.
- **24. Cash flow** statement.
- **25. Moat**.
- **26.** A low P/E is not automatically a bargain. It often means the market expects the company's profits to shrink — the stock is cheap for a reason, and cheap can get cheaper. The P/E is a question ("why is this priced so low?"), not an answer. Tom also compared the number to nothing: P/E only makes sense against the company's own history and similar companies.
- **27.** Profit and cash are two different things. Profit is shaped by accounting rules; cash is a fact — money that actually moved through the bank account. Apex earned $2,000,000 on paper while spending $3,000,000 of real cash on machines and trucks, so its bank balance fell even though the year was profitable. Both numbers are honest. It is also why AA-09 warns that companies die from running out of cash, not from running out of accounting profit.

AA-10 — What Moves Markets

- **28.** The drop: 5,200 × 0.03 = 156. New close: 5,200 − 156 = **5,044**.
- **29.** (a) 4 × $2,000 = **$8,000**. (b) Your whole portfolio is 5 × $2,000 = $10,000. $8,000 ÷ $10,000 = 0.80 = **80%**. You do not own five separate bets — you own one big bet on one neighborhood of the market.
- **30.** (a) $1,000,000 × 0.03 = **$30,000** of interest. (b) $1,000,000 × 0.08 = **$80,000**. (c) $80,000 − $30,000 = **$50,000 more per year**. That extra cost is why high rates squeeze company profits — and why markets hang on every word the Fed says.

- **31. CPI**.
- **32. Guidance**.
- **33.** Prices move on the news VERSUS what was expected — not on whether the news sounds good. The beat can be real and still disappoint: the crowd may have quietly expected an even bigger beat, or the good results were already **priced in** before the report, or the company's guidance for the future was soft. Disappointed holders sell, and the stock falls on genuinely good headlines.
- **34.** A high VIX tells you traders expect BIG price swings and are paying up for protection through options — fear is expensive right now. It does NOT tell you direction. The expected moves can be up, down, or both. VIX measures expected movement, not which way.
- **35.** (a) Traders expect the Fed to keep interest rates high — or raise them — to cool inflation, instead of cutting them. (b) Any two of: expensive borrowing squeezes company profits; expensive borrowing slows customer spending; safe bank accounts and government bonds now pay attractive interest, pulling money out of risky stocks; higher rates make future company profits worth less today.
- **36.** Check the earnings calendar BEFORE you buy — it is published weeks in advance — and seriously consider waiting until after the report. Holding a brand-new position through earnings is a gamble on a coin flip: the stock can gap up or down 5%, 10%, sometimes far more, overnight, and no amount of homework on the company tells you which way the surprise lands.

> **RULE**
> Analysis is a description skill, not a prediction skill. In every answer above, the winning move was the same: measure carefully, compare with what was expected, and say honestly what the numbers do — and do not — prove.



PP-03

WORKBOOK 3
OPTIONS

Exercises for AA-11 → AA-14 — premium math, spreads, Greeks, and 0DTE risk.

Alpha Academy Practice Pack · Team Alpha Trading

Workbook 3: Options

This workbook covers the Academy's options course — AA-11 (The Basics), AA-12 (Pricing & the Greeks), AA-13 (Strategies), and AA-14 (Risk & 0DTE). It is a workbook, not a chapter: read less, calculate more.

How to use it:

- Do each module's exercises right after re-reading that module, with a pencil and a calculator.
- Show your arithmetic on paper. The habit of writing the math down is the skill being built.
- Do not peek. Struggle first, then check the **## Answers** section at the very end — every answer shows its working.
- Every number here follows the rules from the modules: one contract = 100 shares, premium × 100 = real dollars, call breakeven = strike + premium, put breakeven = strike − premium.

> **NOTE**
> Education only, not financial advice. Practice these mechanics in a paper account — simulated money — until every calculation below is boring.

Module AA-11: Options Basics

1. **Math.** A call has a premium of $3.20. What does **one** contract cost? What do **two** contracts cost?
2. **Math.** You buy one put with a strike of $120 for a premium of $4.50. At expiration the stock finishes at $104. (a) What is one contract worth at expiration? (b) What is your profit?
3. **Math.** A call has a strike of $30 and a premium of $1.75. What is the breakeven price at expiration?
4. **Math.** A put has a strike of $88 and a premium of $2.60. What is the breakeven price at expiration?
5. **Math.** An option's premium is $5.40 and its intrinsic value is $3.75. How much extrinsic value are you paying — per share, and per contract?
6. **Fill in the blank.** A call option gives the buyer the right to _____ 100 shares at the _____ price, at any time before the _____ date.
7. **Fill in the blank.** One standard option contract controls _____ shares of stock, so a premium quoted at $2.50 really costs $_____ per contract.
8. **Spot the mistake.** A trader says: "This call's premium is only $0.60, so the whole trade costs me six dollars." What is wrong?
9. **Spot the mistake.** A trader buys a call with a $50 strike for $3.00. The stock rises from $50 to $52 by expiration, and the trader says: "The stock went up, so I made money." What is wrong?
10. **Math.** A stock trades at $64. (a) A call with a $70 strike — is it in the money, at the money, or out of the money? (b) A put with a $70 strike — in, at, or out of the money?
11. **Scenario.** You buy one call on a stock trading at $44: strike price $45, premium $2.00, expiring in three weeks. (a) At expiration the stock closes at $49. What is the contract worth, and what is your profit or loss? (b) Now suppose instead the stock closes at exactly $45 on expiration day. What is the contract worth, and what is your result?

Module AA-12: Pricing & the Greeks

12. **Math.** Your call has a delta of 0.40. The stock rises $3. About how much does the option gain — per share, and per contract — before any other effects?
13. **Math.** Your put has a delta of −0.35. The stock **falls** $4. About how much does the option gain, per share and per contract?
14. **Math.** An option has theta of −0.06. You hold **two** contracts through five quiet days in which the stock does not move. About how much value do you lose to time alone?
15. **Math.** An option has vega of 0.14. Implied volatility **falls** 4 points while the stock sits still. What happens to the option's price, per share and per contract?
16. **Math.** A call has delta 0.45 and gamma 0.07. The stock rises $2. About what is the new delta?
17. **Fill in the blank.** _____ measures how much an option's delta changes when the stock moves $1 — it is delta's acceleration.
18. **Spot the mistake.** Earnings are tonight and implied volatility is extremely high. Dana buys an at-the-money call for $4.00. The report is good, the stock pops 3% the next morning — but her call is now worth $2.60. Dana says the broker must have made an error. What actually happened?
19. **Spot the mistake.** A trader says: "This call's delta is only 0.10, but that's fine — it gives me basically the same exposure as owning the stock, just much cheaper." What is wrong?
20. **Scenario.** You bought a call for $3.00. Its gauges read: delta 0.50, theta −0.08, vega 0.10. Over the next 7 days the stock does not move at all, but implied volatility falls 2 points. Estimate the option's new price, one Greek at a time.
21. **Fill in the blank.** When implied volatility rises, options get _____ even if the stock does not move at all, because buyers are paying more for the movement they expect.
22. **Math.** Which Greek can a trader holding a two-week option mostly ignore, and what does it measure?

Module AA-13: Strategies

23. **Math.** Bull call spread: you buy the $60 call for $2.60 and sell the $70 call for $0.90. Find (a) the net debit in dollars, (b) the maximum loss, (c) the maximum profit, and (d) the breakeven price.
24. **Math.** Bear put spread: you buy the $90 put for $3.10 and sell the $80 put for $1.10. Find (a) the net debit, (b) the maximum loss, (c) the maximum profit, and (d) the breakeven price.
25. **Math.** Bull put spread: you sell the $55 put for $1.40 and buy the $50 put for $0.55. Find (a) the net credit, (b) the maximum profit, (c) the maximum loss, and (d) the breakeven price.
26. **Math.** Bear call spread: you sell the $120 call for $1.70 and buy the $125 call for $0.70. Find (a) the net credit, (b) the maximum profit, (c) the maximum loss, and (d) the breakeven price.
27. **Math.** Iron condor on a stock at $200: you sell the $190 put and buy the $185 put, and sell the $210 call and buy the $215 call, collecting a total credit of $2.10. Find (a) the maximum profit, (b) the maximum loss, and (c) both breakeven prices.
28. **Math.** Straddle: you buy the $150 call for $4.20 and the $150 put for $3.90. Find (a) the total cost per straddle, (b) the maximum loss, and (c) both breakeven prices.
29. **Math.** Strangle: you buy the $160 call for $1.30 and the $140 put for $1.20. Find (a) the total cost, (b) the maximum loss, and (c) both breakeven prices.

30. **Math.** Covered call: you own 100 shares bought at $72. You sell one $78 call for $1.25. At expiration the stock is at $84 and your shares are called away. (a) How much money do you end up receiving in total? (b) What is your profit compared with your original $7,200 cost? (c) How much upside did you give up, compared with simply holding the shares?
31. **Math.** Cash-secured put: you sell one $40 put for $1.50 and set aside $4,000 in cash. At expiration the stock is at $34 and you are assigned. (a) What is your effective cost per share, after the premium? (b) What is your paper loss on the shares at $34?
32. **Math.** Protective put: you own 100 shares bought at $130. You buy one $125 put for $2.40. The stock crashes to $100. (a) How much did the shares lose? (b) What is the put worth? (c) What is your total result, including the premium you paid?
33. **Spot the mistake.** A trader says: "My credit spread paid $120 into my account on day one. That's $120 of profit already locked in." What is wrong?
34. **Spot the mistake.** A trader's spread is losing money, so he says: "I'll just sell off the long option I bought — that cuts my cost and makes the trade cheaper to hold." What is wrong, and what has his trade quietly become?
35. **Fill in the blank.** An _____ is built from a bull put spread plus a bear call spread on the same stock with the same expiration, and it profits when the stock stays inside a range.
36. **Scenario.** Earnings are tonight. A stock trades at $80, and you are sure it will move a lot — but you honestly do not know which way. You buy a straddle: the $80 call and the $80 put, for a combined cost of $6.00. (a) Between which two prices at expiration do you lose money? (b) The report lands, the stock jumps 5% to $84, and it is still there at expiration. Do you make money? Show why or why not.

Module AA-14: Risk & 0DTE

37. **Math.** Your account holds $25,000 and you follow a 2% risk guideline per idea. A spread you like has a maximum loss of $300 per contract. How many contracts can you trade without breaking the guideline?
38. **Math.** Your account holds $8,000 and you follow a 1% risk guideline. A call costs $1.10 per share — $110 per contract. Can you buy one contract inside the guideline? Show the numbers.
39. **Math.** Hedging: you hold 100 shares of an index ETF at $600 per share, a $60,000 position. You buy one put with a $570 strike for $7.50 — $750 of insurance. The market falls 15%, putting the ETF at $510. (a) How much did the shares lose? (b) What is the put worth? (c) What is your total result, including the premium?
40. **Spot the mistake.** A trader says: "0DTE contracts are only $0.40 — forty bucks. That's about as low-risk as options get." What is wrong?
41. **Spot the mistake.** A trader says: "There's only $15 of profit left in my spread, so I'll hold it into expiration and grab every last dollar. What could possibly go wrong in a few hours?" Name the trap he is walking into.
42. **Fill in the blank.** _____ is the danger when a stock closes on expiration day almost exactly at your sold strike price, so you spend the whole weekend not knowing whether you were assigned.
43. **Fill in the blank.** Size options trades by _____ at risk: assume the full amount could be lost, because sometimes it will be — and keep it near 1–2% of your account per idea.

44. **Scenario.** At 1:00 PM you buy an index call expiring **today** for $0.85 — $85. The index goes sideways. (a) By 3:00 PM the call is quoted at $0.15. If you sell now, what is your loss? (b) Instead you hold, the index stays flat, and the call expires. What is your loss now? (c) Which two Greeks dominate an option's final hours and explain both results?

Answers

AA-11 — Options Basics

1. One contract: $3.20 × 100 = **$320**. Two contracts: $320 × 2 = **$640**.
2. (a) A put pays the distance the stock finished below the strike: ($120 − $104) × 100 = $16 × 100 = **$1,600**. (b) You paid $4.50 × 100 = $450. Profit = $1,600 − $450 = **$1,150**.
3. Call breakeven = strike + premium = $30 + $1.75 = **$31.75**.
4. Put breakeven = strike − premium = $88 − $2.60 = **$85.40**.
5. Extrinsic value = premium − intrinsic value = $5.40 − $3.75 = **$1.65 per share**, which is $1.65 × 100 = **$165 per contract**. That $165 is the part that melts to zero by expiration.
6. **buy** — **strike** — **expiration**. A call is the right to buy 100 shares at the strike price before the expiration date.
7. **100** shares — so $2.50 × 100 = **$250** per contract.
8. Premiums are quoted **per share**, and one contract covers 100 shares. $0.60 × 100 = **$60 per contract** — ten times what he said. Forgetting the × 100 is the classic beginner sizing error.
9. At expiration the call is worth $52 − $50 = $2.00 per share. He paid $3.00, so he **loses $1.00 per share — $100 per contract**. His breakeven was $50 + $3.00 = **$53**. The stock rose, but not past the breakeven: right direction, not enough move.
10. (a) The $70 call is **out of the money** — for a call, a strike above the stock price ($70 > $64) means the right has no built-in value yet. (b) The $70 put is **in the money** — for a put, a strike above the stock price means selling at $70 is already worth something when the market pays $64.
11. (a) Contract value = ($49 − $45) × 100 = **$400**. You paid $2.00 × 100 = $200, so your profit = $400 − $200 = **+$200**. (b) At exactly $45 the right to buy at $45 is worth **$0** — the stock finished **at** the strike, not past it. You lose the full **$200** premium. An option only pays on the distance finished past the strike.

AA-12 — Pricing & the Greeks

12. Delta estimate: 0.40 × $3 = **$1.20 per share**, which is $1.20 × 100 = **about $120 per contract**.
13. A put gains when the stock falls: 0.35 × $4 = **$1.40 per share**, or **about $140 per contract**. (Use the size of delta, 0.35 — the negative sign only tells you the direction: puts rise when the stock drops.)
14. Per contract per day: $0.06 × 100 = $6. Five days: $6 × 5 = $30 per contract. Two contracts: $30 × 2 = **about $60 lost to theta**, with the stock doing nothing at all.
15. Vega loss: 0.14 × 4 = **$0.56 per share**, which is **$56 per contract** — lost purely because expectations cooled, with the stock completely still.
16. New delta ≈ 0.45 + (0.07 × $2) = 0.45 + 0.14 = **about 0.59**. Each $1 rise added 0.07 of delta.
17. **Gamma.**
18. No error — this is **IV crush**. Before earnings, her premium carried a large fear surcharge: she paid $4.00 for an option whose value depended on a huge expected move. The moment the news printed, the uncertainty vanished, implied volatility collapsed, and the extrinsic value she had paid for evaporated faster than the stock's 3% rise could replace it. She was right about direction and still lost $1.40 per share — $140 per contract.
19. Delta of 0.10 means the option moves only about **$0.10 for every $1 the stock moves** — roughly one-tenth of the stock's exposure, not the same exposure. It is cheap because the market gives it

roughly a one-in-ten ballpark chance of expiring in the money. He is holding a lottery ticket and describing it as a stock position.

20. One Greek at a time: **Delta:** the stock did not move, so delta contributes **$0**. **Theta:** −$0.08 × 7 days = **−$0.56**. **Vega:** −0.10 × 2 points = **−$0.20**. Total change ≈ −$0.56 − $0.20 = **−$0.76**. New price ≈ $3.00 − $0.76 = **about $2.24**. The stock did nothing and the position still lost about a quarter of its value.

21. **more expensive** (pricier). Higher IV means buyers pay a bigger surcharge for expected movement, so premiums rise even with the stock frozen.

22. **Rho** — it measures how much an option's price changes when **interest rates** move 1 percentage point. Over days or weeks that effect is tiny, so short-term traders can safely spend their attention on delta, theta, gamma, and vega.

AA-13 — Strategies

23. (a) Net debit = $2.60 − $0.90 = $1.70, which is **$170**. (b) Maximum loss = the debit = **$170**. (c) Maximum profit = width − debit = ($70 − $60) − $1.70 = $8.30, which is **$830**. (d) Breakeven = lower strike + debit = $60 + $1.70 = **$61.70**.

24. (a) Net debit = $3.10 − $1.10 = $2.00, which is **$200**. (b) Maximum loss = **$200**. (c) Maximum profit = ($90 − $80) − $2.00 = $8.00, which is **$800**. (d) Breakeven = higher strike − debit = $90 − $2.00 = **$88**.

25. (a) Net credit = $1.40 − $0.55 = $0.85, which is **$85**. (b) Maximum profit = the credit = **$85**. (c) Maximum loss = width − credit = ($55 − $50) − $0.85 = $4.15, which is **$415**. (d) Breakeven = $55 − $0.85 = **$54.15**.

26. (a) Net credit = $1.70 − $0.70 = $1.00, which is **$100**. (b) Maximum profit = **$100**. (c) Maximum loss = ($125 − $120) − $1.00 = $4.00, which is **$400**. (d) Breakeven = $120 + $1.00 = **$121**.

27. (a) Maximum profit = the total credit = $2.10, which is **$210**, kept if the stock finishes between $190 and $210. (b) Maximum loss = one side's width − credit = $5.00 − $2.10 = $2.90, which is **$290**. (The stock can only finish on one side, so only one spread can lose in full.) (c) Breakevens: $190 − $2.10 = **$187.90** below, and $210 + $2.10 = **$212.10** above.

28. (a) Total cost = $4.20 + $3.90 = $8.10, which is **$810**. (b) Maximum loss = **$810**, if the stock finishes at $150. (c) Breakevens: $150 + $8.10 = **$158.10** above, and $150 − $8.10 = **$141.90** below.

29. (a) Total cost = $1.30 + $1.20 = $2.50, which is **$250**. (b) Maximum loss = **$250**. (c) Breakevens: $160 + $2.50 = **$162.50** above, and $140 − $2.50 = **$137.50** below. The strangle costs less than a straddle but demands a bigger move.

30. (a) Shares called away at $78: 100 × $78 = $7,800, plus the $125 premium collected = **$7,925 received in total**. (b) Profit = $7,925 − $7,200 = **$725**. (c) The shares were worth 100 × $84 = $8,400. You gave up $8,400 − $7,925 = **$475** of the rise — the ceiling you agreed to when you sold the call.

31. (a) Effective cost = strike − premium = $40.00 − $1.50 = **$38.50 per share**. (b) At $34, you are down $38.50 − $34.00 = $4.50 per share, which is **$450** on 100 shares. This is why you only sell a cash-secured put on a stock you genuinely want to own at the strike.

32. (a) Share loss = ($130 − $100) × 100 = **$3,000**. (b) Put value = ($125 − $100) × 100 = **$2,500**. (c) Total = −$3,000 + $2,500 − $240 premium = **−$740**. Without the put, the loss was $3,000 and still falling; the insurance converted it into a known, survivable number.

33. The credit is **not profit** — it is a deposit held against a possible loss, yours to keep only if the spread expires safely. His real numbers are the pair: maximum profit $120, and maximum loss = width − credit,

which is larger than $120. Size credit trades by the loss column, never by the income column.

34. The long option he bought is the **protective leg** — the piece that caps his loss and makes the trade defined-risk. Selling it leaves a **naked sold option**: undefined risk with no built-in limit. He did not make the trade cheaper; he removed its brakes.

35. **iron condor**.

36. (a) Breakevens are $80 + $6.00 = **$86** and $80 − $6.00 = **$74**. You lose money on any finish between $74 and $86 (and lose the full $600 at $80). (b) At $84, the call is worth $84 − $80 = $4.00 and the put is worth $0, so the straddle is worth $4.00. You paid $6.00, so you **lose $2.00 — $200**. A 5% jump was not enough: the move had to beat the $6.00 move already priced in, and IV crush after the report would have made the position look even worse before expiration.

AA-14 — Risk & 0DTE

37. Risk allowed = 2% × $25,000 = **$500**. $500 ÷ $300 per contract = 1.67, so **1 contract**. Two contracts would risk $600, breaking the guideline — round down, always.

38. Risk allowed = 1% × $8,000 = **$80**. One contract risks the full premium of **$110**, which is $110 ÷ $8,000 = 1.375% of the account — **over the guideline**. Correct moves: use a cheaper structure such as a spread, wait for a smaller premium, or skip the trade. Skipping is a legitimate answer.

39. (a) Share loss = ($600 − $510) × 100 = **$9,000**. (b) Put value = ($570 − $510) × 100 = **$6,000**. (c) Total = −$9,000 + $6,000 − $750 premium = **−$3,750**, instead of −$9,000 unhedged. The hedge did not make the crash painless; it made it survivable.

40. Cheap in dollars is not the same as low-risk. A 0DTE contract lives its entire life in the zone of **maximum theta and maximum gamma**: value drains by the minute, prices swing violently on tiny index moves, and most of those $0.40 contracts expire worth exactly $0. Repeated daily, "only forty bucks" is how accounts quietly bleed out.

41. **Pin risk** (with surprise assignment riding along). If the stock closes almost exactly at his sold strike, he cannot know over the weekend whether he was assigned — while the protective leg of his spread may have expired worthless by a few cents. Experienced traders close spreads before expiration for this reason: the last $15 is the most expensive money in options.

42. **Pin risk.**

43. **premium**.

44. (a) Loss = ($0.85 − $0.15) × 100 = **$70**. (b) The full premium: **$85** — an option that expires out of the money is worth $0. (c) **Theta and gamma.** Theta is at full speed in the final hours — the contract's remaining time value melted away minute by minute while the index went nowhere. Gamma is at its maximum near the strike near expiration, which is why 0DTE prices can whipsaw wildly on even a small late move. Flat market, melting clock: that combination is the whole result.



PP-04

WORKBOOK 4
FUTURES & MARKETS

Exercises for AA-15 → AA-18 — ticks, points, funds, bonds, and currencies.

Alpha Academy Practice Pack · Team Alpha Trading

Workbook 4: Futures & Other Markets

This workbook covers AA-15 (Futures A–Z), AA-16 (ETFs & Funds), AA-17 (Forex & Crypto Basics), and AA-18 (Bonds, Rates & Commodities). Futures math runs on one formula — points moved × dollars per point — and this workbook makes you run it until it is automatic.

How to use it:

- Do each module's exercises right after re-reading that module, calculator in hand.
- For every futures problem, check your money answer **two ways** when you can: once by points, once by ticks. The two must match.
- Every contract number here is the one from the modules: ES $50/point, MES $5, NQ $20, MNQ $2, GC $100 (tick 0.10 = $10), CL $1,000 (tick 0.01 = $10).
- Answers with full working are in the **## Answers** section at the very end.

> **NOTE**
> Education only, not financial advice. Futures margin amounts and broker rules change — the scenarios here use example numbers, so always check your own broker for the current figures before any real trade.

Module AA-15: Futures A–Z

1. **Math.** You are long 1 ES from 6,200. Price rises to 6,207.50. What is your profit before costs?
2. **Math.** You are short 1 MES from 6,050. Price falls to 6,027. What is your profit before costs? (Short means you profit when price falls.)
3. **Math.** You are long 2 NQ from 18,400. Price falls to 18,385.75. What is your loss before costs?
4. **Math.** MNQ moves 3.25 points in your favor. (a) How many ticks is that? (b) How many dollars is it worth on 1 contract? Check your answer both ways — by ticks and by points.
5. **Math.** You are long 1 GC and gold rises $12.30. (a) What is your profit, figured by points? (b) Check it by ticks.
6. **Math.** You are short 1 CL and oil falls $1.85. (a) What is your profit, figured by points? (b) Check it by ticks.
7. **Math.** The S&P 500 index falls 40 points on a bad day. (a) What does that day cost a trader holding 1 ES? (b) What does it cost a trader holding 1 MES? (c) Same chart, same move — what is the lesson?
8. **Math.** NQ trades at 21,000 and one contract is worth $20 per point. (a) What is the notional value — the full dollar size — of 1 contract? (b) If the index moves 1% against you, how many points is that, and how many dollars do you lose?
9. **Fill in the blank.** Futures margin is a _____ deposit that shows you can cover losses while you hold a position — it is not a loan, and you pay no interest on it.
10. **Fill in the blank.** Moving your position out of the expiring contract and into the next month's contract is called _____ the position.
11. **Fill in the blank.** Read the code **ESH27** in plain words: **ES** is the product, **H** stands for the month of _____, and **27** is the year _____.

12. **Spot the mistake.** A trader says: "I only had to put down a $1,500 deposit to trade ES, so $1,500 is the most I can possibly lose." What is wrong?
13. **Spot the mistake.** A trader says: "Crude oil futures must be gentle for beginners — a tick is only worth $10, cheaper than ES." What is wrong?
14. **Scenario.** Your account holds $6,000 and you are long 1 MES. A brutal day drops the index 400 points against you. (a) How many dollars did you lose, and what is your new account balance? (b) Your broker's example maintenance margin for MES is $4,500. What happens now, and what are your choices?

Module AA-16: ETFs & Funds

15. **Math.** You invest $25,000. Fund A charges an expense ratio of 0.04% per year. Fund B charges 0.85% per year. (a) How much does each fund cost you in the first year? (b) What is the yearly difference?
16. **Math.** You buy 3 shares of an S&P 500 ETF at $512 per share. (a) What did you pay in total? (b) If the index rises 8% over the next year, roughly what is your position worth, before the fund's small fee?
17. **Math.** It is 11:00 AM. You want to buy a fund right now, at the price you can see on your screen, and watch that price move during the day. Should you buy an ETF or a mutual fund — and why?
18. **Scenario.** Maria wants to start investing $300 a month. The mutual fund she likes requires a $3,000 minimum to open. An S&P 500 ETF trades at $540 per share, and her broker offers fractional shares — partial shares bought with whatever dollar amount she has. Which route lets her actually start this month, and why?
19. **Fill in the blank.** You cannot buy an _____ itself — it is only a list and a number. Instead, you buy a _____ that is built to follow it.
20. **Spot the mistake.** A proud investor says: "I own five different S&P 500 funds, so my money is spread across five different investments." What is wrong?
21. **Spot the mistake.** A trader says: "This 2x leveraged ETF follows the index, so if I hold it for a year I should make about double whatever the index makes that year." What is wrong?

Module AA-17: Forex & Crypto Basics

22. **Math.** EUR/USD moves from 1.0840 to 1.0915. How many pips did it move?
23. **Math.** GBP/USD falls from 1.2700 to 1.2652. How many pips did it move?
24. **Math.** You deposit $500 and your forex broker gives you 50-to-1 leverage. (a) How large a position can you control? (b) The trade moves 1.5% against you. How much do you lose, and what fraction of your deposit is that?
25. **Fill in the blank.** In the pair EUR/USD, the euro is the _____ currency and the US dollar is the _____ currency.
26. **Fill in the blank.** A standard lot in forex is _____ units of the base currency — far more money than most beginners realize they are controlling.
27. **Spot the mistake.** A beginner says: "My broker offers 100-to-1 leverage right on the sign-up page, so high leverage must be a normal, safe way to trade forex." What is wrong?
28. **Scenario.** A stranger in an online group chat shows you screenshots of enormous crypto profits and urges you to move your money to a brand-new trading platform he recommends. When you ask about

withdrawals, he says you will first need to pay a "release fee" to unlock your earnings. Name at least two red flags in this story, and state the correct action.

Module AA-18: Bonds, Rates & Commodities

29. **Math.** A bond has a face value of $1,000 and a coupon of 5.5%. (a) How much interest does it pay per year? (b) Most US bonds pay twice a year — how much arrives every six months?
30. **Math.** A bond pays a fixed $60 per year. You buy it for $1,200. What is your yield?
31. **Math.** A bond pays a fixed $30 per year. You buy it for $750. What is your yield?
32. **Math.** Brand-new bonds now pay about 7%. Your older bond pays a fixed $50 per year. Roughly what price must your bond fall to so that its yield matches 7%?
33. **Fill in the blank.** Bond prices and yields sit on a seesaw: when yields rise, bond prices _____.
34. **Fill in the blank.** Bonds graded below BBB are nicknamed _____ bonds — the pay-off for their much higher coupons is a much higher chance of not being repaid.
35. **Spot the mistake.** A headline reads "Bond Yields Jump to a One-Year High," and a bond holder cheers: "Yields are up — bond owners had a great day." What is wrong?
36. **Scenario.** You own a bond that pays a fixed $40 a year. Interest rates rise, and brand-new bonds now pay about 5%. A friend offers you $1,000 for your bond and says, "It's a $1,000 bond — full price is only fair." (a) Should you expect buyers in the open market to pay $1,000? Why or why not? (b) Roughly what price makes your bond's yield match the new 5%?

Answers

AA-15 — Futures A–Z

1. Points gained: 6,207.50 − 6,200 = 7.50 points. Money: 7.50 × $50 = **$375 profit**.
2. Short profits when price falls: 6,050 − 6,027 = 23 points in your favor. Money: 23 × $5 = **$115 profit**.
3. Points lost: 18,400 − 18,385.75 = 14.25 points. Per contract: 14.25 × $20 = $285. Two contracts: $285 × 2 = **$570 loss**.
4. (a) Ticks: 3.25 ÷ 0.25 = **13 ticks**. (b) By ticks: 13 × $0.50 = **$6.50**. By points: 3.25 × $2 = **$6.50**. The two ways match — that agreement is your error check on every futures calculation.
5. (a) By points: $12.30 × $100 = **$1,230 profit**. (b) By ticks: $12.30 ÷ $0.10 = 123 ticks; 123 × $10 = **$1,230**. Match.
6. Short profits when price falls. (a) By points: $1.85 × $1,000 = **$1,850 profit**. (b) By ticks: $1.85 ÷ $0.01 = 185 ticks; 185 × $10 = **$1,850**. Match. Notice how a move smaller than two dollars in oil is worth nearly two thousand dollars on one contract.
7. (a) ES: 40 × $50 = **$2,000**. (b) MES: 40 × $5 = **$200**. (c) The chart and the move are identical — only the contract size changes the money. This is exactly why beginners learn on micros: the same lessons at one-tenth the tuition.
8. (a) Notional value = 21,000 × $20 = **$420,000** controlled by one contract. (b) 1% of 21,000 = 210 points. Money: 210 × $20 = **$4,200 lost**. A routine 1% index day is a four-figure event on a single NQ contract.
9. **good-faith**. Futures margin is a security deposit, like the deposit on a rental car — returned when the position closes, minus any losses taken out along the way.
10. **rolling**.
11. **March — 2027**. (ESH27 = the E-mini S&P 500 contract for March 2027.)
12. The deposit is not the price of the contract and it does not cap the loss. Profit and loss are calculated on the **full position**: points moved × $50 per point for ES. A 100-point bad day is 100 × $50 = $5,000 — more than three times his deposit. If losses drag the account below maintenance margin, he gets a margin call and the broker can close the position for him.
13. He is comparing ticks when he should be comparing **points and realistic moves**. One CL tick is $10, but one CL **point** — a $1 move per barrel on 1,000 barrels — is **$1,000**, twenty times an ES point. Oil routinely moves several dollars. Add that CL is a physical-delivery contract a beginner must exit or roll well before expiration, and it is one of the last contracts a beginner should touch.
14. (a) Loss: 400 × $5 = **$2,000**. New balance: $6,000 − $2,000 = **$4,000**. (b) $4,000 is below the $4,500 maintenance margin, so he gets a **margin call**: deposit more money right away, or the broker closes the position for him — possibly at the worst moment. This is why professionals keep far more cash in the account than the minimum deposit.

AA-16 — ETFs & Funds

15. (a) Fund A: 0.04% × $25,000 = 0.0004 × $25,000 = **$10 per year**. Fund B: 0.85% × $25,000 = 0.0085 × $25,000 = **$212.50 per year**. (b) Difference: $212.50 − $10 = **$202.50 every year** — and money paid in fees is no longer invested, so it cannot grow for you later either.
16. (a) 3 × $512 = **$1,536**. (b) $1,536 × 1.08 = **$1,658.88** (a gain of $122.88), minus the fund's small expense ratio. An index fund is built to track its index's move — up or down — minus its fee.

17. An **ETF**. ETFs trade on an exchange like a stock, with prices changing all day while the market is open. A mutual fund gets exactly **one price per day, after the market closes** — there is no live 11:00 AM price to trade at.
18. The **ETF route**. The mutual fund's $3,000 minimum means Maria must save for ten months before she can invest a cent. With fractional shares, her broker lets her put the $300 to work in the $540 ETF immediately — she buys a partial share. What matters most after that is the same for both: the expense ratio, what the fund holds, and sticking with it.
19. **index** — **fund**. The index is the scoreboard; the fund is how you play the game the scoreboard measures.
20. Five funds that all follow the S&P 500 hold essentially **the same 500 companies** — that is one basket bought five times, not five different investments. Diversification means spreading across different holdings, not collecting duplicate tickers.
21. A leveraged ETF's multiplier applies to **each single day**, and the leverage **resets daily**. Over weeks and months its results drift far from a simple multiple of the index's total move, and it can lose value even in a sideways market. These are short-term trading tools for experienced traders, not buy-and-hold investments.

AA-17 — Forex & Crypto Basics

22. Move: 1.0915 − 1.0840 = 0.0075. Pips: 0.0075 ÷ 0.0001 = **75 pips** up.
23. Move: 1.2700 − 1.2652 = 0.0048. Pips: 0.0048 ÷ 0.0001 = **48 pips** down.
24. (a) Position size: $500 × 50 = **$25,000** controlled. (b) Loss: 1.5% × $25,000 = **$375**. As a fraction of the deposit: $375 ÷ $500 = **75% of her money gone on a 1.5% move** — a completely normal currency move. That is leverage working exactly as designed, in the painful direction.
25. **base** currency — **quote** currency. The price of the pair tells you how many dollars (the quote) one euro (the base) costs.
26. **100,000** units.
27. An offer is not a recommendation. Brokers advertise leverage because large positions generate more activity; the leverage multiplies **losses** exactly as fast as gains, and most retail forex traders lose money — high leverage is the number one reason their accounts do not survive. The amount of leverage offered says nothing about the amount that is safe to use.
28. Red flags (any two): profit screenshots from a stranger — screenshots are trivially easy to fake; an unfamiliar, unproven platform he is pushing you to move money to; and a fee demanded before you can withdraw — the classic trap, where deposits go in easily and money never comes out. **Correct action: stop, send nothing.** Crypto transfers cannot be reversed, and no bank can undo them; money sent on a stranger's instructions should be treated as gone.

AA-18 — Bonds, Rates & Commodities

29. (a) Yearly interest: 5.5% × $1,000 = 0.055 × $1,000 = **$55 per year**. (b) Every six months: $55 ÷ 2 = **$27.50**.
30. Yield = yearly payment ÷ price paid = $60 ÷ $1,200 = **5%**. You paid more than face value, so your yield is below what the same payment would give at $1,000 — the seesaw at work.
31. Yield = $30 ÷ $750 = **4%**. You paid less than face value for the same fixed payment, so your yield is higher — price down, yield up.

32. Price ≈ yearly payment ÷ target yield = $50 ÷ 0.07 = **about $714**. When new bonds pay 7%, nobody pays full price for a $50-a-year promise; its price must fall until the yield competes.
33. **fall** (go down). Prices and yields move in opposite directions — when a headline says "yields rose," it means bond prices fell.
34. **junk** bonds.
35. He has the seesaw backwards. Yields rise **because prices fell** — buyers demanded a higher return, so existing bonds became cheaper. Existing holders who sold that day received less than they would have the day before. "Yields up" is bad news for the current market value of bonds already owned.
36. (a) **No.** New bonds paying 5% are a better deal than her $40-a-year bond at $1,000 (which yields only $40 ÷ $1,000 = 4%), so buyers will not pay full price for hers. Its price must fall until its yield competes — that is interest rate risk. (b) Price ≈ $40 ÷ 0.05 = **about $800**. The friend's "fair" $1,000 offer is actually generous compared with the open market.



PP-05

WORKBOOK 5
RISK & RULES

Exercises for AA-19 → AA-23 — sizing drills, psychology traps, and scam spotting.

Alpha Academy Practice Pack · Team Alpha Trading

Workbook 5: Risk, Psychology & Rules (AA-19 → AA-23)

This workbook turns the five most protective chapters of Alpha Academy into practice. Work with a pencil, not a highlighter — these pages are for doing. Do the exercises in order, write your answers in the blanks, and only then check yourself against the **## Answers** section at the very end. Every number here uses the same rules you learned in AA-19 through AA-23: if your answer disagrees with the key, re-read that module before moving on.

> **NOTE**
> This workbook is education only, from Team Alpha Trading. It is not financial, tax, or legal advice. Tax and broker rules change — use a qualified professional for your real money and your real tax return.

Module AA-19 — Risk Management A–Z

Exercise 1 — Complete the loss-recovery table. You start with $1,000. Fill in every blank.

If you lose...	You have left (of $1,000)	Gain needed just to break even
10%	$900	_____
20%	$800	_____
25%	_____	+33.3%
50%	$500	_____
75%	$250	+300%
90%	_____	_____

Exercise 2 — Position sizing, standard stop. Your account is $10,000 and you follow the 1% rule. You want to buy a stock at $80 with your stop at $76.

- (a) Your dollar risk on this trade: $_____
- (b) Your risk per share: $_____
- (c) Shares to buy (**shares = $ risk ÷ (entry price − stop price)**): _____
- (d) What the position costs (this is NOT your risk): $_____

Exercise 3 — Position sizing, learning size. Your account is $4,000 and, while learning, you risk 0.5% per trade. Entry is $25, stop is $24.50.

- (a) Your dollar risk: $_____
- (b) Your risk per share: $_____
- (c) Shares to buy: _____

Exercise 4 — Position sizing, rounding down. Your account is $25,000 and you risk 1% per trade. Entry is $120, stop is $114.

- (a) Your dollar risk: $_____
- (b) $250 ÷ $6 per share = _____ shares exactly — so you buy _____ shares (always round down).
- (c) Your actual dollar risk after rounding down: $_____

Exercise 5 — Spot the mistake. A trader with a $10,000 account says: "My rule is 1% risk. Entry $50, stop $45 — I bought 100 shares because 100 is a nice round number." Name the mistake and give the correct share count.

_____

Exercise 6 — Convert results to R-multiples. You planned to risk $80 on each of these trades. Write each result in R.

- (a) Made $200 → _____ R
- (b) Lost $80 → _____ R
- (c) Made $40 → _____ R

- (d) Exited early and lost $24 → _____ R

Exercise 7 — Track a week in R. You risked $50 on every trade. Complete the table, then answer below it.

Trade	Result in $	Result in R
1	+$100	_____
2	−$50	_____
3	−$50	_____
4	+$150	_____
5	−$25	_____

- (a) Total result in dollars: $_____
- (b) Total result in R: _____
- (c) You won _____ of 5 trades (a _____ % win rate) — and still finished ahead. In one sentence, why?

_____

Exercise 8 — Judge the risk-to-reward. You are looking at a stock at $30, with a stop at $28.

- (a) If your target is $33: you risk $_____ per share to possibly make $_____ per share. That is _____-to-1. Does it meet the at-least-2-to-1 guideline from AA-19? _____
- (b) If your target were $36 instead: the reward is $_____ per share, which is _____-to-1. Does that one meet the guideline? _____

Exercise 9 — Fill in the blanks.

- (a) A _____ _____ is an order placed with your broker that automatically sells your position if price falls to a level you choose.
- (b) Lose five trades in a row risking 10% of your account each time and you are down about _____ % — and you would then need about a _____ % gain just to get back to even.

Exercise 10 — Daily and weekly limits. Your account is $10,000. Your daily loss limit is 3% and your weekly loss limit is 6%.

- (a) Your daily loss limit in dollars: $_____
- (b) Risking $100 per trade, how many full losing trades end your day? _____
- (c) Your weekly loss limit in dollars: $_____

Module AA-20 — Trading Psychology & Discipline

For Exercises 11–16, name the trap — **fear, greed, FOMO, revenge, boredom, or overconfidence** — then write the plan-based move instead.

Exercise 11. Lena's plan: buy if the stock holds above $75, stop at $73.50. The stock holds at $75.20, dips to $74.80 — still above her stop — and her heart pounds. She sells "to be safe," loses $40, and watches the stock rise to her target without her.

- The trap: _____
- The plan-based move: _____

Exercise 12. Tom's trade reaches his planned target, up $150. A voice says, "What if it doubles?" He holds. By the close the gain is gone and the trade ends at −$30.

- The trap: _____
- The plan-based move: _____

Exercise 13. A stock Jay has never heard of is up 38% by 11 AM, and his feed is full of other people's profit screenshots. In under two minutes he buys near the top — no plan, no stop, no idea what the company does.

- The trap: _____
- The plan-based move: _____

Exercise 14. Two minutes after a normal, planned $100 loss, Chris is still angry. He jumps into a bigger trade on a stock he has not researched, with no stop, "to make it back." It loses $260.

- The trap: _____
- The plan-based move: _____

Exercise 15. It is a slow afternoon and Dan's setup has not appeared for two hours. Feeling like the sitting is wasted time, he puts on a trade "just to have something going," on a ticker he has never watched before.

- The trap: _____
- The plan-based move: _____

Exercise 16. After five wins in a row, Maya skips her checklist — "I can feel the market today" — and triples her usual size. The next trade loses and wipes out most of the week's gains.

- The trap: _____
- The plan-based move: _____

Exercise 17 — Loss aversion, fill in the blanks.

- (a) For most people, losing $100 feels roughly _____ as painful as gaining $100 feels good.
- (b) That one bias pushes traders toward two bad habits: holding _____ too long, and selling _____ too early.

Exercise 18 — Judge the trade, not the outcome. Trade A followed the written plan exactly and lost −1R. Trade B broke every rule — no stop, double size — and won +$300. Which one was the *good* trade, and why?

_____

_____

Exercise 19 — Journal entries are data. A journal entry reads, in full: "Bought SPY. Lost $80. Bad day." Name at least four pieces of information from AA-20 and AA-21 that are missing.

_____

_____

Module AA-21 — Building Your Trading Plan & Journal

Exercise 20 — Size it from the plan. Your account is $3,000 and your plan risks 1% per trade. Your entry is $60 and your stop-loss is $57.

- (a) The most one trade may lose: $_____
- (b) Risk per share: $_____
- (c) Largest position allowed: _____ shares

Exercise 21 — Finish Sam's plan. Here is the start of a real beginner plan. Fill in the three blanks so each piece is specific enough that another person could follow it word for word.

- What I trade: SPY only
- When I trade: Weekdays, 10:00 AM – 12:00 PM Eastern
- My one setup: _____
- My daily stop: Sam's account is $2,000 and his rule is to stop for the day after losing 2%. In dollars, that is $_____ — and when he hits it, he is _____ for the day.
- One item on my "never" list: _____

Exercise 22 — Spot the mistakes in this plan. "My plan: I will buy strong stocks whenever they look good. I will risk whatever feels right for the trade. My goal is to make $500 every month. If a trade goes against me, I will hold on, because it will probably come back." Name at least three things wrong with it.

_____

_____

_____

Exercise 23 — Fill in a journal row. Your planned risk on this trade was $25. You bought a pullback setup in SPY at $510.00 and sold at $512.00 for a +$75 result. Complete the row.

Date	Ticker	Setup	Entry	Exit	Result $	Result R	Feeling	One Lesson
Today	SPY	Pullback	$510.00	$512.00	+$75	_____	_____	_____

Quick check, same $25 planned risk: a −$25 result is _____ R, and a +$25 result is _____ R.

Exercise 24 — Process goal or money goal? Mark each goal **P** (process) or **M** (money).

- (a) "Journal every trade the same day, all month." _____
- (b) "Make $100 a day." _____
- (c) "Risk 1% or less on every trade this month." _____
- (d) "Double my account by June." _____

Exercise 25 — Fill in the blanks.

- (a) Your first _____ trades should be practice trades, made with paper money.
- (b) A plan is allowed to change on paper, _____, after studying your journal — and never in the middle of a _____ _____.

Module AA-22 — Accounts, Margin, Rules & Taxes

Exercise 26 — Margin math. You deposit $10,000 into a margin account and buy $20,000 of a stock: $10,000 of your cash plus a $10,000 loan from the broker.

- (a) The stock rises 10%. The position is worth $_____. You sell and repay the loan, leaving you about $_____ (before interest and fees) — a gain of about _____ % on your own money.
- (b) The stock falls 10%. The position is worth $_____. After repaying the loan you have about $_____ — a loss of about _____ % on your own money.

Exercise 27 — The margin call. Same account as Exercise 26, but the stock falls 40%.

- (a) The position is now worth $_____.
- (b) Your equity (position value minus the loan) is $_____.
- (c) That equity is about _____ % of the position's value — above or below the 25% regulatory maintenance floor? _____
- (d) Your own money fell from $10,000 to that equity number — a loss of about _____ %.
- (e) If you do not act on the margin call, what can the broker do?
  _____

Exercise 28 — Regulation T, fill in the blanks.

- (a) For US stocks, Reg T initial margin lets your first purchase be up to _____ % borrowed.
- (b) With $6,000 of your own money, the most stock you could buy on day one is $_____.

Exercise 29 — Settlement and day-trading rules: true or false? Write **T** or **F**, and be ready to explain each one.

- (a) US stock and options trades settle T+1 — the next business day. _____
- (b) The Pattern Day Trader rules apply to cash accounts. _____
- (c) Under the classic PDT rule, a flagged pattern day trader in a margin account had to keep at least $25,000 in equity — but the rule system has been changing, so you must check your own broker's current day-trading rule. _____
- (d) Trading profits are not taxed until you withdraw the money from your account. _____

Exercise 30 — The good faith violation. Maya has a cash account. On Monday she sells Stock A for $500. On Monday afternoon she uses that $500 to buy Stock B, then sells Stock B the same day.

- (a) Did she commit a good faith violation? _____
- (b) On which day does the $500 from selling Stock A settle? _____
- (c) What should she have waited for before selling Stock B?
  _____

Exercise 31 — Wash sale, case 1. You sell 100 shares at a $400 loss on June 10. On June 25 you buy the same stock again because "now it looks good."

- (a) Does the wash sale rule apply? _____
- (b) What happens to the $400 loss for this year's taxes?
  _____

Exercise 32 — Wash sale, case 2. You sell a stock at a loss on March 5 and buy it back on April 20. The 30th day after your sale was April 4.

- (a) Does the wash sale rule apply? _____
- (b) The full window the rule watches is _____ days total: _____ days before the sale, the sale day itself, and _____ days after.

Exercise 33 — Short-term or long-term? Mark each gain **ST** (held one year or less) or **LT** (held more than one year).

- (a) Bought January 10, 2025; sold November 3, 2025. _____
- (b) Bought March 2023; sold May 2025. _____
- (c) Bought at 10:00 AM and sold at 2:00 PM the same day. _____

Module AA-23 — Safety: Scams & Protecting Your Money

Exercise 34 — Name the scheme. A group chat is hyping "ZQPT, a tiny stock under $1, about to explode on a secret contract — get in before Friday!" The member shouting the loudest bought his shares yesterday. Two days later the price has collapsed 70%.

- (a) What is this scheme called? _____
- (b) Who made the money? _____
- (c) In this scheme, what are the late buyers really being used as?
  _____

Exercise 35 — Name the trap, twice. After two months of warm daily messages, an online friend introduces Dana to a trading app "her uncle manages." The balance on screen grows beautifully. When Dana tries to withdraw $5,000, support tells her she must first pay a $400 "verification fee."

- (a) The slow, friendly setup is called _____ _____.
- (b) The pay-to-withdraw demand is called a _____ _____.
- (c) Should Dana pay the $400? _____ What should she do instead?
  _____

Exercise 36 — Spot the phishing. You get a text: "URGENT: Your brokerage account will be LOCKED. Verify your login within 5 minutes: [link]."

- (a) This trick is called _____.
- (b) Name the three things AA-23 tells you to slow down and check: 1) _____ 2) _____ 3) _____
- (c) The safest way to reach your account instead:
  _____

Exercise 37 — Spot the fake guru. A coach's page says: "GUARANTEED 30% monthly returns — risk-free! We never lose." The page shows only profit screenshots and a rented sports car, and the enrollment discount ends tonight. Name at least three tells that this is a fraud.

_____

_____

_____

Exercise 38 — Match the red flag to what it usually means. Write the correct letter for each flag.

- Meanings: (A) A pump-and-dump looking for exit buyers · (B) Withdrawal trap — your money is gone · (C) Account takeover attempt · (D) The recruits are the product
- (a) Withdrawal requires paying a fee first → _____
- (b) A "manager" asks for your login or a screen share → _____
- (c) Winning requires recruiting other people → _____
- (d) A tiny unknown stock everyone must buy right now → _____

Exercise 39 — Fill in the blanks.

- (a) _____ _____ authentication (2FA) means logging in takes two proofs: your password plus a one-time code, usually from an app on your phone — so a stolen password alone is not enough to get in.

- (b) The free tool for checking whether a US broker or salesperson is registered is called _____, and it is run by _____.
- (c) A real broker lets your money _____ . Test any new platform early with a small _____ .

Exercise 40 — Money rules scenario. Jordan opens his first trading account with a credit card cash advance plus this month's rent money. He keeps no savings outside the account, because "it's all going to work out." Name the three money-rule mistakes from AA-23, and what the chapter says to do instead.

_____

_____

_____

Answers

AA-19 — Risk Management A–Z

1. 10% loss → **+11.1%** needed ($100 ÷ $900). 20% loss → **+25%** ($200 ÷ $800). 25% loss → **$750** left. 50% loss → **+100%** ($500 ÷ $500 — you must double what is left). 90% loss → **$100** left, **+900%** needed ($900 ÷ $100). The deeper the hole, the steeper the climb — that is why small losses are cheap and big losses are nearly permanent.

2. (a) 1% of $10,000 = **$100**. (b) $80 − $76 = **$4** per share. (c) $100 ÷ $4 = **25 shares**. (d) 25 × $80 = **$2,500** — the position costs $2,500, but if the stop at $76 is hit you lose 25 × $4 = $100, exactly as planned. Position size and dollar risk are different things.

3. (a) 0.5% of $4,000 = **$20**. (b) $25 − $24.50 = **$0.50** per share. (c) $20 ÷ $0.50 = **40 shares**.

4. (a) 1% of $25,000 = **$250**. (b) $250 ÷ $6 = 41.67 shares exactly, so you buy **41 shares** — always round down, never up. (c) 41 × $6 = **$246** of actual risk, safely under the $250 limit.

5. He sized by feel (a round number of shares) instead of by the formula — and he has no working risk limit at all. Risk per share is $50 − $45 = $5, so the correct count is $100 ÷ $5 = **20 shares**. Buying 100 shares puts 100 × $5 = **$500** at risk — 5% of his account, five times his own rule. One normal losing streak at that size does real damage.

6. Divide the result by the $80 you planned to risk. (a) $200 ÷ $80 = **+2.5R**. (b) −$80 ÷ $80 = **−1R** (a normal, planned loss). (c) $40 ÷ $80 = **+0.5R**. (d) −$24 ÷ $80 = **−0.3R**.

7. In R: Trade 1 **+2R**, Trade 2 **−1R**, Trade 3 **−1R**, Trade 4 **+3R**, Trade 5 **−0.5R**. (a) $100 − $50 − $50 + $150 − $25 = **+$125**. (b) +2 − 1 − 1 + 3 − 0.5 = **+2.5R**. (c) You won **2 of 5** trades, a **40%** win rate. You finished ahead because your wins were bigger than your losses — +2R and +3R winners pay for several −1R losers.

8. (a) Risk is $30 − $28 = **$2** per share; possible reward is $33 − $30 = **$3** per share; $3 ÷ $2 = **1.5-to-1**. **No** — it falls short of the 2-to-1 guideline, so per AA-19 you skip it. (b) Reward is $36 − $30 = **$6** per share; $6 ÷ $2 = **3-to-1**. **Yes** — that one clears the guideline.

9. (a) A **stop loss**. (b) Down about **41%** (each loss shrinks what is left: 0.90 five times over leaves about 59 cents of every dollar), and you would need about a **69%** gain just to get even. This is why AA-19 calls 10%-per-trade risk mathematically fatal over a normal losing streak.

10. (a) 3% of $10,000 = **$300**. (b) $300 ÷ $100 = **3** full losing trades — which is by design, since risking 1% per trade means roughly three losers end the day. (c) 6% of $10,000 = **$600**.

AA-20 — Trading Psychology & Discipline

11. Fear (the exit costume). The plan-based move: hold to the plan — the dip to $74.80 never touched her $73.50 stop, so there was nothing to do. The exit belongs at the stop or the target, not at the first pounding heartbeat.

12. Greed. The plan-based move: sell at the planned target and bank the +$150. A target picked calmly in advance is the exit; "what if it doubles?" is not a plan.

13. FOMO — the fear of missing out. The plan-based move: no trade. No plan, no stop, no knowledge of the company means no entry, no matter what the feed is celebrating. A move you missed cost you nothing; there is always another trade.

14. Revenge trading. The plan-based move: stop. A planned −1R loss is a normal cost of business; the correct response is to step away, review later, and let the daily loss limit do its job — never to trade bigger while angry to "make it back."

15. Boredom. The plan-based move: wait. A trader's job is to wait for their setup and then trade it — the quiet hours are part of the job, not wasted time. No setup, no trade.

16. Overconfidence after wins. The plan-based move: run the same checklist and the same size as always. Four or five wins do not change the odds of the next trade, and a hot streak is exactly when discipline matters most.

17. (a) **Twice** (roughly two times as painful). (b) Holding **losers** too long (selling means accepting the painful loss, so the pain gets delayed while the loss grows), and selling **winners** too early (grabbing the gain before the fear of losing it wins). Together they produce big losses and small wins — the exact opposite of what works.

18. Trade A was the good trade. You judge a trade on whether it followed the plan, not on one outcome: a rule-following loss is a normal cost of business, while a rule-breaking win pays you to build a habit — no stop, doubled size — that will eventually send you the real bill.

19. Any four of: the **setup** traded (or "NOT IN PLAN"), the **entry and exit prices**, the **size**, the **planned risk and result in R**, **what you felt** before and during the trade, **whether you followed your plan**, and **one lesson**. Without those, the entry teaches nothing — it is a complaint, not data.

AA-21 — Building Your Trading Plan & Journal

20. (a) 1% of $3,000 = **$30**. (b) $60 − $57 = **$3** per share. (c) $30 ÷ $3 = **10 shares**.

21. Answers vary — grade for *specific*, not for matching these words. Sample: My one setup — "Buy **SPY** when it pulls back to yesterday's closing price, holds there, and rises back above the pullback's turning point." Daily stop: 2% of $2,000 = **$40**, and when he hits it he is **done** for the day. Never list, any one of: never trade money needed for rent, bills, or food; never add to a losing trade; never move a stop-loss further away; never trade tired, sick, rushed, or upset; never buy just because someone online said to.

22. Any three: (1) The "setup" is not a setup — "whenever they look good" cannot be followed word for word by another person. (2) No fixed risk — "whatever feels right" replaces the fixed percentage of the account the plan should name. (3) "$500 every month" is a **money goal**, which you cannot control and which pushes you to break rules chasing it; the plan needs process goals instead. (4) There is no stop-loss or loss exit — "hold on, it will probably come back" is the most dangerous sentence in trading. (5) There is no daily stop and no "never" list. (Any three, in your own words.)

23. Result R: +$75 ÷ $25 planned risk = **+3R**. Feeling and One Lesson are yours to write honestly — for example, Feeling: "Calm," One Lesson: "Waiting for the full setup works." Quick check: −$25 ÷ $25 = **−1R**; +$25 ÷ $25 = **+1R**.

24. (a) **P** — journaling is 100% in your control. (b) **M** — the market does not care about your daily target. (c) **P** — your risk per trade is your decision on every trade. (d) **M** — a deadline on your balance is a money goal, and chasing it invites oversizing and rule-breaking.

25. (a) **30** (paper trade first, review them weekly, and only consider real money once you can honestly say you followed your plan on almost every one). (b) On **paper, on a weekend** (plans change at the desk, not at the screen), never in the middle of a **trading session**.

AA-22 — Accounts, Margin, Rules & Taxes

26. (a) $20,000 × 1.10 = **$22,000**. Sell and repay the $10,000 loan: about **$12,000** left — a gain of about **20%** on your own $10,000, from a 10% stock move. (b) $20,000 × 0.90 = **$18,000**. After repaying the $10,000 loan: about **$8,000** — a loss of about **20%** on your own money. That doubling, in both directions, is leverage — and margin interest is owed on top, win or lose.

27. (a) $20,000 × 0.60 = **$12,000**. (b) $12,000 − $10,000 loan = **$2,000** of equity. (c) $2,000 ÷ $12,000 ≈ **17%** — **below** the 25% maintenance floor, so this account gets a margin call. (d) ($10,000 − $2,000) ÷ $10,000 = an **80%** loss of your own money, from a 40% stock move. (e) The broker may legally **sell your investments for you, at whatever price the market offers, without asking** — and it will choose which positions to sell, not you.

28. (a) **50%**. (b) $6,000 of your money plus up to $6,000 borrowed = **$12,000**.

29. (a) **T** — since May 2024, US stock and options trades settle in one business day: trade date plus one, T+1. (b) **F** — day-trader rules apply to **margin accounts**; cash accounts are not flagged, but they have their own settlement limits (Exercise 30). (c) **T** — that is the classic rule stated correctly, including the honest part: regulators have been replacing the old PDT system with intraday-margin standards, brokers are transitioning on their own schedules, and your broker's current rule is the final word. (d) **F** — selling is the taxable event. A gain is taxable when you sell, whether the money is withdrawn or still sitting in the account.

30. (a) **Yes.** She bought Stock B with money from a sale that had not settled, then sold Stock B before that money settled — she sold something she had not fully paid for yet. (b) **Tuesday** — Monday's sale settles T+1, the next business day. (c) She should have waited until the $500 was **settled** before selling the new purchase. In a cash account, only trade with settled money; money deposited from your bank and left to settle is always safe.

31. (a) **Yes** — June 25 is 15 days after the sale, well inside 30 days after. (b) The $400 loss is **disallowed for now** — it cannot be claimed on this year's taxes. In many cases it is added to the cost of the new shares, so you may effectively claim it later when you sell for good, but the timing surprise is the trap. (And note: the rule watches all your accounts, even an IRA at a different broker — a tax professional earns their fee here.)

32. (a) **No** — April 20 is past April 4, the 30th day after the sale, so the repurchase falls outside the window (and no substantially identical purchase inside the window is described). (b) **61** days total: **30** days before the sale, the sale day itself, and **30** days after.

33. (a) **ST** — about ten months, one year or less. (b) **LT** — more than two years. (c) **ST** — a same-day trade is as short-term as it gets. Short-term gains are generally taxed like regular income; long-term gains generally get a lower, preferential rate — exact rates depend on your situation and current law, which is why this stays a job for a tax professional.

AA-23 — Safety: Scams & Protecting Your Money

34. (a) A **pump-and-dump**. (b) The **organizers** — they quietly bought the cheap stock *before* the hype and sold everything into the crowd's buying at the top. (c) The late buyers are the **exit** — their buying is what the organizers sell into. Once the organizers are out, there are no big buyers left and the price collapses, usually for good. The louder the urgency about a tiny unknown stock, the more likely you are looking at someone else's exit door.

35. (a) **Pig butchering** — the "friendship" was the fattening, built over weeks or months to steer Dana onto the platform. (b) A **withdrawal trap** — there is no real balance to release; the fee is simply the next amount they intend to steal. (c) **No.** Paying will produce a new fee, not her money. Instead: stop sending money, save every message, and contact her bank and local authorities — speed matters more than embarrassment.

36. (a) **Phishing** — a fake message built to trick you into handing over your login. (b) Check: 1) **the sender and the address** (the login page must be your broker's exact website address), 2) **the urgency** (lock-outs and "act in 5 minutes" pressure are the costume every phishing message wears), 3) **the request itself** (your broker will never ask for your full password by email, text, or chat). (c) Ignore the link and reach your account the safe way: type the address yourself, use your bookmark, or open the official app.

37. Any three: (1) **"Guaranteed" and "risk-free"** — anyone guaranteeing profits is lying; real trading always involves risk of loss, so this alone means walk away. (2) **Profits shown, losses never mentioned** — an edited record, not a track record. (3) **The lifestyle is the product** — the rented car is the advertisement, not evidence of trading skill. (4) **Countdown pressure** — the expiring discount exists so you pay while excited instead of thinking. An operation that cannot show a full, verified track record *including the losses* has already answered your questions.

38. (a) **B** — withdrawal trap. (b) **C** — account takeover attempt: no one legitimate needs your login or your screen; a professional who trades client money uses official firm accounts. (c) **D** — the recruits are the product. (d) **A** — a pump-and-dump looking for exit buyers.

39. (a) **Two-factor** authentication. (b) **BrokerCheck**, run by **FINRA** (the Financial Industry Regulatory Authority) — free, and it shows registration, history, and complaints or regulatory actions. (c) A real broker lets your money **leave**; test any new platform early with a small **withdrawal**.

40. Three mistakes: (1) **Borrowed money** — a credit card cash advance means he can lose more than he has, plus interest; if losing it puts you in debt, it was never trading money. (2) **Rent money** — money with a deadline attached forces selling at the worst moments and panic at normal price moves; rent, bill, food, and tuition money never enter a trading account. (3) **No emergency fund** — the emergency cushion belongs in a plain bank savings account, *outside* the trading account, so a car repair or a lost job cannot raid a trade and a trading loss can never become a life emergency. The chapter's rule underneath all three: trade only with money you could lose completely without changing your life.

> **RULE**
> The math in this workbook is not homework for its own sake. Size from the stop, measure in R, respect the boring rules, and treat every promise of easy money as an attack — do that, and you keep the one thing every other skill needs: your account, alive, for tomorrow.



PP-06

MY TRADING PLAN

The fill-in template — print it, write your rules, sign it, follow it.

Alpha Academy Practice Pack · Team Alpha Trading

My Trading Plan (Fill-In Template)

A **trading plan** is a short written document that says what you trade, when you trade, and how much you are allowed to risk — decided by you, in advance, while you are calm. Traders do not rise to the occasion; they fall back on their plan. This template is how you build yours.

Print it and write on it, or fill it in on your screen. Answer every section. Short answers are fine — a one-line rule you actually follow beats a page you ignore. If you do not know an answer yet, write what you think today. You will update this plan at your monthly review (see the last section).

> **NOTE**
> This is an education worksheet from Alpha Academy, not financial advice. Examples below use a pretend paper account. Start with paper trading — practice money — before risking a single real dollar.

Name: _____ Date written: _____

My Markets and Instruments

An **instrument** is simply the thing you trade — a stock, an option, a futures contract, an ETF (a fund that trades like a stock). Beginners improve fastest by trading a very short list of instruments, over and over, until they know how those instruments behave.

- The markets I will trade (for example: US stocks, stock options, micro futures):

_____

_____

- The exact tickers or contracts on my list (keep it to five or fewer at the start — examples: SPY, QQQ, MES):

_____

_____

- The markets I will NOT trade yet, and my reason (for example: "No individual small stocks — I do not know how to research them yet"):

_____

_____

My Setups

A **setup** is the exact pattern or situation that must appear before you are allowed to enter a trade — your reason for getting in. If the setup is not there, there is no trade, no matter how exciting the chart looks.

- Describe each setup in plain words, like you are explaining it to a friend who knows nothing about trading.
- If you cannot describe a setup in two sentences, it is not ready to trade.
- Start with ONE setup. Add a second only after the first one is in your journal many times.

Setup name	What it looks like, in plain words	When I take it
First-hour breakout	Price breaks above the high of the first hour of the day with strong volume (many shares changing hands)	Only in the morning session, only when the break is clean and strong
_____	_____	_____
_____	_____	_____

- The ONE setup I will learn first:

_____

My Entry Rules

Your **entry rules** are the checklist that must be fully true before you press buy or sell. Two order types you will meet here: a **market order** tells your broker "buy now at whatever the current price is," and a **limit order** says "buy only at my price or better" — if price never reaches your price, the trade does not happen.

- Entry rule 1 (for example: "The setup is fully formed, not almost formed"):

_____

- Entry rule 2 (for example: "Price is on the right side of my key level"):

_____

- Entry rule 3:

_____

- The one thing that cancels a trade even when everything else looks right (for example: a big news report about to come out):

_____

_____

- The order type I will use most of the time, and why:

_____

My Exit Rules

Your **exit rules** say how a trade ends — both ways. A **stop loss** is a price you pick in advance that proves your idea wrong and gets you out, like a seatbelt for the trade. Decide every exit BEFORE you enter, because mid-trade you will not think clearly.

- How I will take profit (for example: sell at my target price, or at +2R — "R" is my planned risk on the trade, so +2R means I make twice what I planned to risk):

_____

_____

- Where my stop loss goes on every trade:

_____

- What I do if price just goes sideways and nothing happens by this time:

_____

- Will I ever move a stop loss further away to "give the trade room"? (The honest, plan-approved answer is no. Write your answer here and sign up to it):

_____

My Position Size and Max Risk Per Trade

Position size is how much you buy — how many shares or contracts. Size is the one part of a trade you fully control, and it is decided by math, not by how confident you feel.

Many beginners use the **1% guideline**: never plan to lose more than about 1% of your account on a single trade.

> **SETUP**
> Example — Sam has a $10,000 paper account. 1% of $10,000 is $100, so Sam's max planned loss on one trade is $100. Sam's setup puts the stop loss $2.00 below the entry price, so Sam's size is $100 ÷ $2.00 = 50 shares. If the trade loses, Sam loses about $100 — annoying, not account-ending.

- My account size today: $_____
- My max risk per trade: _____% of my account = $_____ per trade
- How I will calculate my size before EVERY trade (planned risk in dollars ÷ distance from entry to stop = my size):

_____

- The most positions I am allowed to hold at the same time: _____

My Daily and Weekly Loss Limits

A **daily loss limit** is a dollar or percent amount that, the moment you hit it, ends your trading day. It exists for one reason: a trader who is losing tends to trade worse and worse trying to win it back. The limit makes the decision for you, in advance.

Example: a daily limit of 2% of the account and a weekly limit of 5% of the account.

- My daily loss limit: $_____ or _____% of my account. When I hit it, I stop for the day. No exceptions.
- My weekly loss limit: $_____ or _____% of my account. When I hit it, I stop for the week and only review.
- What I will physically do when I hit a limit (for example: close the app, go for a walk, review my journal):

_____

_____

- How many losing trades in a row before I stop for the day: _____

My Trading Hours

Trading all day is a fast way to get tired, sloppy, and broke. Most beginners do better with a short, fixed session they treat like a job shift. (US stock market regular hours are 9:30 AM to 4:00 PM Eastern Time.)

- The days I trade:

_____

- My session (for example: "9:30 to 11:30 AM ET only"):

_____

- Times I will never open a trade (for example: the first five minutes of the day, when I am tired or upset, after my session ends):

_____

_____

- The latest time I am allowed to open a new trade: _____

My Never List

Your **never list** is the set of things you do not do — ever, on any day, for any reason. These rules are not about strategy. They protect you from yourself on your worst day, which is exactly the day you will need them.

Examples students often use: never trade money I need for rent or bills; never add more money to a losing trade; never move a stop loss further away; never trade when I am angry, tired, or rushing; never take a trade that is not in this plan; never trade a ticker I have not looked at before the session.

- Never 1: _____
- Never 2: _____
- Never 3: _____
- Never 4: _____
- Never 5: _____
- Never 6: _____

My Review Schedule

A plan that sits in a drawer does nothing. Review is how the plan — and the trader — actually improve. This schedule is small on purpose. Small and kept beats big and skipped.

- After every trade, I will: (for example: "Write it in my journal within 10 minutes of exiting")

_____

- Every week, on _____ (day), I will complete the Weekly Review page.
- Every month, I will re-read this entire plan, check it against my journal, and update what is not working.
- The date of my next full plan review: _____

Signed: _____ Date: _____

> **TIP**
> Re-read this plan before every session and review it once a month. Update it only during a monthly review — never in the middle of a trading day, and never right after a loss. Mid-pain edits are how plans quietly stop protecting you.



PP-07

TRADING JOURNAL PAGES

Printable trade-log pages with the emotions check — one row per trade, no exceptions.

Alpha Academy Practice Pack · Team Alpha Trading

Trading Journal Pages (Printable)

A **trading journal** is a written record of every trade you take — what you did, what happened, and whether you followed your plan. Professionals keep one because memory lies: after a win you remember being smart, after a loss you remember being unlucky. The journal remembers what actually happened.

Print a stack of these pages and keep them next to your screen. Fill in one row for every trade, right after you exit — not at the end of the day, not tomorrow. Five minutes after the trade, you still remember the truth.

How to Fill In Each Column

- **Date** — the day you took the trade.
- **Ticker** — the symbol you traded (for example: SPY, QQQ, MES).
- **Setup** — the setup from your written trading plan that this trade was based on. If it was not a setup from your plan, write "NOT IN PLAN" — honestly. Those rows are the most valuable ones you own.
- **Entry** — the price where you got in.
- **Exit** — the price where you got out.
- **Size** — how much you traded (for example: 50 sh for 50 shares, or 2 contracts).
- **Result $** — what you made or lost in dollars, after the trade closed.
- **Result R** — your result measured in **R**, which means your planned risk on that trade. If you planned to risk $50 (that $50 is "1R") and you made $100, your result is +2R. If you lost the full $50, your result is -1R. R lets you compare trades of different sizes fairly.
- **Followed plan? (Y/N)** — did you follow your written plan on this trade, yes or no? Be honest. A winning trade that broke your plan is still a bad trade.
- **One lesson** — one short line. Even "Followed everything. Good trade." counts.

Example — One Filled-In Row

Date	Ticker	Setup	Entry	Exit	Size	Result $	Result R	Followed plan? (Y/N)	One lesson
03/04	ABC	Pullback to support	50.00	52.00	50 sh	+$100	+2R	Y	Sized by my stop, not by feel

Check the example math: (52.00 − 50.00) × 50 shares = +$100. The stop was at 49.00, so the planned risk was $1.00 per share × 50 shares = $50 = 1R. A $100 gain is +2R.

> **RULE**
> If it is not in the journal, it did not happen. A trade you never write down is tuition you paid for a lesson you refused to learn.

Trade Log — Block 1 (Trades 1–10)

Date	Ticker	Setup	Entry	Exit	Size	Result $	Result R	Followed plan? (Y/N)	One lesson

Trade Log — Block 2 (Trades 11–20)

Date	Ticker	Setup	Entry	Exit	Size	Result $	Result R	Followed plan? (Y/N)	One lesson
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____

Trade Log — Block 3 (Trades 21–30)

Date	Ticker	Setup	Entry	Exit	Size	Result $	Result R	Followed plan? (Y/N)	One lesson

Trade Log — Block 4 (Trades 31–40)

Date	Ticker	Setup	Entry	Exit	Size	Result $	Result R	Followed plan? (Y/N)	One lesson

Emotions Check

Feelings are data too. For a few trades each week, rate how you felt **before**, **during**, and **after** the trade on a scale of 1 to 10 — where **1 = calm and clear-headed** and **10 = heart pounding, desperate, or furious**. It takes ten seconds per trade.

Then look for patterns at your weekly review. Many students discover something like: "Every trade I entered at a 7 or higher lost money." That discovery is worth more than most indicators.

Example row: trade 1 on 03/04 — calm before (4), shaky during (7), settled after (3).

Trade # / Date	Before (1–10)	During (1–10)	After (1–10)
1 — 03/04	4	7	3
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

> **TIP**
> Bring these pages to your weekly review. Your worst trades and your highest emotion numbers will usually turn out to be the same trades — and that is fixed by your plan and your loss limits, not by trying harder in the moment.



PP-08

WEEKLY REVIEW & CHECKLISTS

Pre-market, pre-trade, post-trade checklists — plus the end-of-week review page.

Alpha Academy Practice Pack · Team Alpha Trading

Weekly Review & Daily Checklists

Checklists exist for one reason: on your worst day, your brain will not show up for work — but a checklist always does. Pilots and surgeons use them for the same reason traders should. You do not need to feel disciplined. You need to run the list.

Print this document. Run the three daily checklists every day you trade. Do the end-of-week review once a week, on the same day, at the same time — it takes about 20 minutes and it is where most of your actual learning happens. The monthly review at the end takes five minutes more.

Your trading plan should be open next to you while you use every page here. If a checklist item mentions something your plan does not cover yet, that is a note for your next monthly plan review.

Pre-Market Checklist

Run through this BEFORE the market opens. (US stock market regular hours are 9:30 AM to 4:00 PM Eastern Time; adjust if you trade other hours.) Its job is to make sure you arrive prepared, with a plan, instead of reacting to whatever the first candle does.

- [ ] I slept enough, and I feel clear-headed enough to trade today
- [ ] I checked today's economic calendar for big reports (jobs numbers, inflation, central bank announcements) that can move the whole market at once
- [ ] I checked overnight news on the tickers I plan to trade
- [ ] I marked my key levels on my charts (yesterday's high and low, the pre-market high and low)
- [ ] I know the ONE setup I am looking for today
- [ ] My max risk per trade and my daily loss limit are written down, and I know both numbers
- [ ] My trading plan is open next to my screen

Pre-Trade Checklist

Sixty seconds before you enter ANY trade, every time. This list is the last gate between a feeling and a trade.

- [ ] This trade matches one of the setups written in my trading plan
- [ ] I can say my reason for entering out loud in one sentence
- [ ] My stop loss price (the price that proves me wrong and gets me out) is already decided
- [ ] My size was calculated from my risk amount and my stop distance — it is not a guess
- [ ] My profit target is decided before I enter, not after
- [ ] Even if this trade loses in full, I stay inside my daily loss limit
- [ ] I am calm — if I am angry, bored, or trying to win back a loss, I do NOT take this trade

Post-Trade Checklist

Right after every exit, before you look at another chart. This is what turns one trade into one lesson.

- [ ] I wrote the trade in my journal — every column, including Result $ and Result R
- [ ] I marked "Followed plan?" honestly, Y or N

- [ ] I wrote my one lesson in the journal
- [ ] I checked whether I am still inside my daily loss limit
- [ ] If I hit my daily loss limit, or my stop-for-the-day number of losses, I am DONE trading today
- [ ] I am taking a short break before even looking at another trade

End-of-Week Review

Do this once a week — Friday after the close, or over the weekend, works well. Every number below comes straight out of your journal pages. Do not estimate. Count.

Quick reminders: **win %** means your winning trades divided by your total trades (6 winners out of 10 trades = 60%). **Average R** means add up the Result R column for every trade this week, then divide by the number of trades — it tells you what a typical trade earned or lost, measured in units of your planned risk.

This week's number	My result
Trades taken	_____
Win % (winning trades ÷ total trades)	_____
Average R per trade (total R ÷ number of trades)	_____
Total R for the week	_____
Biggest winner (in R)	_____
Biggest loser (in R)	_____
Trades that followed my plan	_____ out of _____

- My biggest rule break this week was:

_____

_____

- Why did it happen? (What was I feeling or thinking at the time?)

_____

_____

- The one lesson from this week:

_____

_____

- One thing I did WELL this week that I want to repeat:

_____

- My ONE focus for next week (pick just one — one focus gets fixed, five focuses get ignored):

_____

_____

- Anything changing next week? (My hours, my limits, a report or event I need to be careful around):

_____

_____

Monthly Review (Short)

Once a month, after your last weekly review of the month. Five minutes, honest answers.

- My Followed-plan percentage this month was: _____%
- Is my main setup making or losing R across the whole month? (Add up its R results only):

_____

- My biggest lesson of the month:

_____

_____

- The ONE thing I will change next month (change one thing only, so you can tell whether it worked):

_____

_____

- Date I re-read my trading plan and updated it: _____

> **RULE**
> The review is the trade. The market charges you tuition either way — a weekly review is how you make sure you actually receive the education you already paid for.



PP-09

THE 30-TRADE PAPER CHALLENGE

Thirty paper trades, one setup, graded on rule-following — not profit.

Alpha Academy Practice Pack · Team Alpha Trading

The 30-Trade Paper Challenge

You have read the lessons. You know what a setup is, what risk means, and why a journal matters. None of that counts yet — because knowing and doing are two different skills. This challenge is where doing starts.

The deal is simple. You will take **30 trades in a paper account** — a practice account your broker gives you that uses fake money but real, live prices. Same charts. Same speed. Same fear and greed, minus the real losses. You will trade **one setup** (your exact trade pattern, written down in your trading plan), risk the **same small percentage** on every trade, and **journal every single trade the same day**. Then you will grade yourself.

And here is the part that surprises everyone: **you are not graded on profit.** You are graded on how often you followed your own plan. A trader can follow every rule for 30 trades and still finish down on paper money, because even good setups lose in streaks. Another trader can break every rule, gamble, and get lucky for 30 trades. The first trader is building a skill. The second is building a habit that will empty a real account later. This challenge can tell the difference — and it grades the first one higher.

Why 30 Trades?

Because small numbers lie. Flip a coin three times and you might get three heads in a row. That does not make the coin magic — it makes three a useless sample. A **sample** is just a group of results big enough to learn something from. Three trades tell you almost nothing about your setup or about yourself. Five trades, not much more.

Thirty is the smallest sample that starts telling the truth. Over 30 trades, your real habits show up: whether you actually wait for your setup, whether your size stays the same when you are losing, whether your journal entries match what you really did. Luck can carry you through 5 trades. It cannot hide you for 30.

Thirty is also small enough to finish. This is not a year-long project. Depending on how often your setup appears, most students finish in four to eight weeks. Finishing matters — a completed honest sample beats an abandoned "perfect" one every time.

> **NOTE**
> This challenge is paper money only, from trade 1 to trade 30. It is an education exercise, not financial advice. Do not run it with real money your first time through — the whole point is learning what you do under pressure while the mistakes are still free.

The Rules

There are six rules. They do not change during the challenge, for any reason, ever.

- **Rule 1 — Paper account only.** Start a fresh paper account (or reset yours) and write the starting balance on your setup page. If you blow it up, that is data, not disaster — but you still restart the count at trade 1 if you reset the balance.
- **Rule 2 — One setup only.** Trade the single setup from your trading plan, the exact pattern with the exact entry and exit rules. Same setup, all 30 trades. You will get bored around trade 10. Boredom is part of the test — real traders are bored most of the time.
- **Rule 3 — Fixed risk on every trade.** Risk the same percentage of your paper account on every trade. We suggest **1%**. Your **risk** on a trade is the dollar amount you lose if the trade hits your stop (your pre-set

exit price that cuts a losing trade). Example: your paper account is $10,000. One percent of $10,000 is $100. So every trade risks $100 — win, lose, or draw. Never raise it mid-challenge, and especially never raise it after a loss to "win it back."

- **Rule 4 — Journal every trade the same day.** Fill in the trade log before the day ends. Your memory will quietly edit the trade by tomorrow morning — it will make your entry look smarter and your rule-breaking look smaller. The same-day log is the honest one.
- **Rule 5 — No changing anything mid-challenge.** The setup, the risk percentage, and your trading times stay frozen for all 30 trades. If you discover something is genuinely broken in your plan, you have two honest choices: finish the 30 trades anyway, or stop, fix the plan, and start a fresh challenge at trade 1. What you may not do is bend the rules and keep counting.
- **Rule 6 — No forcing trades.** If your setup does not appear today, there is no trade today. That is not a missed day; that is the plan working. Waiting is a trading skill, and this challenge counts trades taken — not days sat in front of a screen.

Two Things You Need: R and Your Plan Grade

R is how traders measure results without dollar signs confusing them. One **R** equals the amount you planned to risk on that trade. If you risk $100, then 1R on that trade is $100.

- Your trade makes $200 on a $100 risk → result = **+2R**
- Your trade loses the full $100 → result = **−1R**
- You exit early and lose only $40 of a $100 risk → result = **−0.4R** ($40 ÷ $100 = 0.4)

The formula is: **Result in R = your actual dollar result ÷ the dollars you risked.** R lets you compare a $100-risk trade and a $500-risk trade fairly, and it keeps your scorecard about decisions instead of account size.

Your **plan grade** is even simpler. After each trade, grade how well you followed your plan:

- **A** — Every rule followed. Right setup, right size, stop and exit exactly by the plan.
- **B** — The core rules held, with one small slip. Right setup, right size, stop respected — but you entered a little late, or took profit a little early.
- **C** — A core rule was broken. Wrong setup, wrong size, stop moved, traded outside your hours, or a revenge trade (a quick trade taken to win back a loss, which is emotion, not a plan).

Grade honestly, the same day, while you still remember what you actually did. A C you write down teaches you more than an A you faked — and faked As are how this challenge becomes worthless.

Step 1: Your Challenge Setup

Fill this page in before trade 1. If a line is hard to fill in, that is your plan telling you it is not finished yet — go back to your trading plan module, fix it, then come back.

- Paper account starting balance: $_____
- Market I will trade (stocks / options / futures): _____
- Tickers or contracts I will trade: _____
- My one setup, in my own words: _____
- _____
- My entry rule (exactly what must happen before I enter): _____
- _____
- My stop rule (where the trade is wrong, and I am out): _____
- My exit rule (how winners are taken): _____
- My trading session (days and times I am allowed to trade): _____
- My risk per trade: _____ % of my account = $_____ per trade
- Maximum trades I may take per day: _____
- My daily loss limit (when it is hit, I stop for the day): $_____
- Challenge start date: _____

> **TIP**
> If you cannot write your setup in two or three plain sentences, you do not have a setup yet — you have a feeling. Feelings are not allowed in this challenge. Write the sentences first.

Step 2: The Trade Log

One row per trade, filled in the same day. "Setup followed?" means the trade was your one setup, taken by its rules — answer honestly, not hopefully. Result R uses the formula from above. If you print this document, print several copies of these pages; if you keep it on a computer, copy the table for each new challenge attempt.

Trades 1–10

#	Date	Ticker	Setup followed?	Entry	Exit	Result R	Plan grade
1	_____	_____	Y / N	_____	_____	_____	A / B / C
2	_____	_____	Y / N	_____	_____	_____	A / B / C
3	_____	_____	Y / N	_____	_____	_____	A / B / C
4	_____	_____	Y / N	_____	_____	_____	A / B / C
5	_____	_____	Y / N	_____	_____	_____	A / B / C
6	_____	_____	Y / N	_____	_____	_____	A / B / C
7	_____	_____	Y / N	_____	_____	_____	A / B / C
8	_____	_____	Y / N	_____	_____	_____	A / B / C
9	_____	_____	Y / N	_____	_____	_____	A / B / C
10	_____	_____	Y / N	_____	_____	_____	A / B / C

Trades 11–20

#	Date	Ticker	Setup followed?	Entry	Exit	Result R	Plan grade
11	_____	_____	Y / N	_____	_____	_____	A / B / C
12	_____	_____	Y / N	_____	_____	_____	A / B / C
13	_____	_____	Y / N	_____	_____	_____	A / B / C
14	_____	_____	Y / N	_____	_____	_____	A / B / C
15	_____	_____	Y / N	_____	_____	_____	A / B / C
16	_____	_____	Y / N	_____	_____	_____	A / B / C
17	_____	_____	Y / N	_____	_____	_____	A / B / C
18	_____	_____	Y / N	_____	_____	_____	A / B / C
19	_____	_____	Y / N	_____	_____	_____	A / B / C
20	_____	_____	Y / N	_____	_____	_____	A / B / C

Trades 21–30

#	Date	Ticker	Setup followed?	Entry	Exit	Result R	Plan grade
21	_____	_____	Y / N	_____	_____	_____	A / B / C
22	_____	_____	Y / N	_____	_____	_____	A / B / C
23	_____	_____	Y / N	_____	_____	_____	A / B / C
24	_____	_____	Y / N	_____	_____	_____	A / B / C
25	_____	_____	Y / N	_____	_____	_____	A / B / C
26	_____	_____	Y / N	_____	_____	_____	A / B / C
27	_____	_____	Y / N	_____	_____	_____	A / B / C
28	_____	_____	Y / N	_____	_____	_____	A / B / C
29	_____	_____	Y / N	_____	_____	_____	A / B / C
30	_____	_____	Y / N	_____	_____	_____	A / B / C

Step 3: Weekly Check-Ins

At the end of each week, sit down with your log for ten minutes and answer these questions in writing. If your setup trades slowly and a week holds only two trades, still check in — the check-in is about your behavior, not your trade count. Keep checking in weekly until you reach 30 trades, even if that takes more than four weeks.

Week 1 Check-In

- Trades completed so far: _____ of 30
- Plan grades so far: _____ A's, _____ B's, _____ C's
- My total R so far: _____
- The biggest temptation this week was: _____
- _____
- The rule that was hardest to keep was: _____
- Because: _____
- One adjustment for next week (how I will follow my plan better — never a new setup, never a bigger risk): _____

Week 2 Check-In

- Trades completed so far: _____ of 30
- Plan grades so far: _____ A's, _____ B's, _____ C's
- My total R so far: _____
- The biggest temptation this week was: _____

- _____
- The rule that was hardest to keep was: _____
- Because: _____
- One adjustment for next week (how I will follow my plan better — never a new setup, never a bigger risk): _____

Week 3 Check-In

- Trades completed so far: _____ of 30
- Plan grades so far: _____ A's, _____ B's, _____ C's
- My total R so far: _____
- The biggest temptation this week was: _____
- _____
- The rule that was hardest to keep was: _____
- Because: _____
- One adjustment for next week (how I will follow my plan better — never a new setup, never a bigger risk): _____

Week 4 Check-In

- Trades completed so far: _____ of 30
- Plan grades so far: _____ A's, _____ B's, _____ C's
- My total R so far: _____
- The biggest temptation this week was: _____
- _____
- The rule that was hardest to keep was: _____
- Because: _____
- One adjustment for the final stretch (how I will follow my plan better — never a new setup, never a bigger risk): _____

Mistakes That Ruin the Challenge

- **Switching setups at trade 9 because "this one isn't working."** Nine trades is not a verdict on anything. You just threw away your sample and learned nothing.
- **Raising risk after losses.** This turns a learning exercise into gambling practice. The risk percentage is frozen — see Rule 3.
- **Grading yourself kindly.** If it was a C, write C. The only person you can fool here is yourself, and you are the one paying for it later.
- **Skipping the log on bad days.** The ugly rows are the most valuable rows in the table. That is where your real habits live.
- **Quitting at trade 22 because "the result is already clear."** It is not clear until 30. Finishing is itself one of the skills being trained.
- **Checking your profit first.** Notice what the scorecard asks for first: trades, grades, percentages. Profit comes last, on purpose.

Step 4: The Final Scorecard

After trade 30, compute these four numbers from your log. A trade counts as **"followed the plan"** if you graded it A or B — the core rules held.

- **Total trades** = count your rows. It should be 30.
- **Percent followed plan** = (number of A + B trades) ÷ 30 × 100
- **Average R** = (all 30 Result R numbers added together) ÷ 30
- **Expectancy** = your average R. **Expectancy** means what one of your trades is worth, on average, over the sample. Positive expectancy means your process gained ground per trade; negative means it lost ground per trade. It is a description of these 30 trades — not a promise about the next 30.

Worked mini-example. Say a student's first 6 trades came out like this: results of +2R, −1R, −1R, +1.5R, −0.5R, +1R, with plan grades A, A, B, A, C, A.

- Followed plan: 5 of 6 trades were A or B → 5 ÷ 6 × 100 = **83% followed plan**
- Total R: 2 − 1 − 1 + 1.5 − 0.5 + 1 = **+2R**
- Average R: +2R ÷ 6 = **+0.33R per trade**
- Expectancy: **+0.33R per trade** — at a $100 risk per trade, that is about $33 gained per trade on average in this small sample

Now fill in your real numbers:

- Total trades completed: _____
- A grades: _____ B grades: _____ C grades: _____
- Percent followed plan: _____ %
- Total R: _____
- Average R (expectancy): _____ R per trade

Your Grade

Rule-following %	Grade	What it means
90–100%	Pass With Honors	You did what you said you would do, almost every time. That is the rarest skill in trading.
75–89%	Pass	Your discipline is real but leaks in spots your check-ins probably already named. You may move on — and keep journaling.
Below 75%	Repeat the Challenge	Your plan did not get a fair test, because you were not trading it. Same setup, same risk, fresh 30 trades. The reps are the point.

Read this part twice: **profit is not part of your grade.** Not a little part. Not a tiebreaker. Zero part. You can finish at −5R and pass with honors, if you followed your plan 30 times — that result says your plan may need work, and you are exactly the kind of trader who can fix a plan without breaking rules. And you can

finish at +10R and fail, if you broke rules to get there — that profit is borrowed luck, and borrowed luck gets collected, with interest, the first time you trade real money. The scorecard grades the trader, not the market's mood during your 30 trades.

Whatever your grade, you now own something most beginners never get: 30 honest rows of evidence about how you actually trade. That is the foundation everything else in this school is built on.

> **RULE**
> This challenge graduates discipline, not luck. Anyone can get lucky for 30 trades. Almost nobody can follow their own rules for 30 trades — and that is exactly why it is the skill worth graduating.



PP-12

GLOSSARY FLASHCARDS

All 519 Level 1 terms as test-yourself sheets — answers on the flip side.

Alpha Academy Practice Pack · Team Alpha Trading

Glossary Flashcards & Study Sheets

Every term in the Alpha Trading Glossary, turned into study cards. Two ways to use these sheets:

- **Part 1 — Test yourself.** Each card shows the term and a blank space. Say the definition out loud, or write it in, BEFORE you look at Part 2.
- **Part 2 — The answer side.** The same terms in the same order, with the full definitions. Check yourself honestly — close is not the same as knowing it cold.

> **TIP**
> Print Part 1 and keep it by your desk. Ten cards a day and you will speak the market's language in two months.

Part 1 — Test Yourself

A

Term	Your definition (say it or write it)
Account	
Accredited Investor	
Acquisition	
Actively Managed Fund	
Adjusted Close	
After-Hours Trading	
Algorithm	
All-or-None Order	
Alpha	
American Depositary Receipt (ADR)	
American-Style Option	
Analyst	
Annual Meeting	
Annual Report	
Annuity	
Appreciation	
Arbitrage	
Ask	
Ask Price	
Ask Size	
Asset	
Asset Allocation	
Asset Class	
Assignment	
At-the-Close Order	
At-the-Money	
At-the-Open Order	

Term	Your definition (say it or write it)
Automatic Exercise	
Average Daily Volume	
Average True Range	
Averaging Down	
Averaging Up	

B

Term	Your definition (say it or write it)
Backtesting	
Balance Sheet	
Bar Chart	
Basis Point	
Bear Call Spread	
Bear Market	
Bear Put Spread	
Bearish	
Benchmark	
Beta	
Bid	
Bid-Ask Spread	
Bid Price	
Bid Size	
Block Trade	
Blue-Chip Stock	
Bollinger Bands	
Bond	
Bond Yield	
Book Value	
Bracket Order	
Break-Even Point	
Breakout	
Broker	
Bull Call Spread	
Bull Market	
Bull Put Spread	

Term	Your definition (say it or write it)
Bullish	
Business Cycle	
Buy and Hold	
Buy to Close	
Buy to Open	
Buyback	

C

Term	Your definition (say it or write it)
Call Option	
Candlestick	
Capital	
Capital Gain	
Capital Gains Tax	
Capital Loss	
Capitalization	
Cash Account	
Cash Flow	
Cash Settlement	
Catalyst	
Chart	
Chart Pattern	
Circuit Breaker	
Clearing House	
Closing Bell	
Closing Price	
Collar	
Commission	
Commodity	
Common Stock	
Compound Interest	
Consolidation	
Consumer Price Index (CPI)	
Contango	
Contract	
Contract Month	

Term	Your definition (say it or write it)
Contrarian	
Correction	
Cost Basis	
Coupon	
Covered Call	
Credit Spread	
Currency	
Current Ratio	
Cyclical Stock	

D

Term	Your definition (say it or write it)
Dark pool	
Day order	
Day trade	
Day trader	
Dead cat bounce	
Debit	
Debit spread	
Debt	
Deep in the money	
Deflation	
Delisting	
Delivery	
Delta	
Demand	
Derivative	
Dip	
Diversification	
Dividend	
Dividend yield	
Doji	
Dollar-cost averaging	
Double bottom	
Double top	
Dow Jones Industrial Average	
Downside	
Downtrend	
Drawdown	

Term	Your definition (say it or write it)
Due diligence	

E

Term	Your definition (say it or write it)
Earnings	
Earnings guidance	
Earnings per share	
Earnings report	
Earnings season	
Economic calendar	
Economic indicator	
Economic moat	
Elliott Wave Theory	
E-mini futures	
End of day	
Engulfing candle	
Entry point	
Equity	
Equity curve	
ETF	
European-style option	
Ex-dividend date	
Exchange	
Exchange rate	
Exercise	
Exercise price	
Expense ratio	
Exit point	
Expiration date	
Extended-hours trading	
Extrinsic value	

F

Term	Your definition (say it or write it)
Face value	
Federal funds rate	
Federal Reserve (Fed)	
Fibonacci retracement	
Fill	
Financial statement	
Fiscal year	
Fixed income	
Flash crash	
Flat	
Float	
FOMC	
FOMO	
Forex	
Fractional share	
Freeriding	
Front month	
Front-running	
Fund	
Fundamental analysis	
Futures	
Futures contract	
Futures expiration	

G

Term	Your definition (say it or write it)
Gain	
Gamma	
Gap	
Gap fill	
Globex	
Going long	
Going public	
Going short	
Golden cross	
Good faith deposit	
Good faith violation	
Good 'til canceled (GTC)	
Government bond	
Greeks	
Gross domestic product (GDP)	
Gross margin	
Gross profit	
Growth investing	
Growth stock	

H

Term	Your definition (say it or write it)
Halt	
Hammer Candle	
Hard Stop	
Hard to Borrow	
Head and Shoulders	
Hedge	
Hedge Fund	
High Beta	
High of Day	
High-Yield Bond	
Higher High	
Higher Low	
Higher Time Frame	
Historical Volatility	
Hold	
Holding Period	
Horizontal Level	
Hot Money	
Hourly Chart	

I

Term	Your definition (say it or write it)
Implied Move	
Implied Volatility	
In the Money	
Income Statement	
Index	
Index Fund	
Index Futures	
Index Option	
Indicator	
Inflation	
Initial Margin	
Initial Public Offering (IPO)	
Inside Bar	
Insider Trading	
Institutional Investor	
Interest Rate	
Intraday	
Intrinsic Value	
Inverse ETF	
Investing	
Investment Grade	
Investor	
Iron Butterfly	
Iron Condor	
IV Crush	
IV Rank	

J

Term	Your definition (say it or write it)
January Effect	
Jobs Report	
Joint Account	
Journal	
Junk Bond	

K

Term	Your definition (say it or write it)
Keltner Channels	
Key Level	
Know Your Customer (KYC)	

L

Term	Your definition (say it or write it)
Large Cap	
Last Price	
Last Trading Day	
Level 2	
Leverage	
Leveraged ETF	
Limit Move	
Limit Order	
Limit Price	
Liquidation	
Liquidity	
Liquidity Provider	
Liquidity Risk	
Long	
Long-Term Capital Gain	
Long-Term Investing	
Loss	
Loss Limit	
Lot Size	
Low of Day	
Lower High	
Lower Low	

M

Term	Your definition (say it or write it)
MACD	
Maintenance Margin	
Margin	
Margin Account	
Margin Call	
Mark Price	
Mark to Market	
Market Breadth	
Market Cap	
Market Crash	
Market Depth	
Market Hours	
Market Maker	
Market Order	
Market Sentiment	
Market Timing	
Max Pain	
Maximum Loss	
Mean Reversion	
Micro Futures	
Microcap Stock	
Mid Cap	
Mid Price	
Mini (E-mini) Futures	
Momentum	
Money Market Fund	
Moneyness	

Term	Your definition (say it or write it)
Moving Average	
Multi-Leg Order	
Multiplier	
Mutual Fund	

N

Term	Your definition (say it or write it)
Naked Option	
NASDAQ	
Nasdaq-100	
Nasdaq Composite	
Net Asset Value (NAV)	
Net Change	
Net Income	
Net Liquidation Value (Net Liq)	
New Highs and New Lows	
New York Stock Exchange (NYSE)	
News Catalyst	
Nonfarm Payrolls (NFP)	
Notional Value	

O

Term	Your definition (say it or write it)
Odd Lot	
Offer (Ask Price)	
OHLC (Open, High, Low, Close)	
Open	
Open Interest	
Open Order	
Open Position	
Opening Bell	
Opening Range	
Option	
Option Chain	
Option Contract	
Option Seller (Writer)	
Options Approval	
Options Expiration	
Order	
Order Book	
Order Flow	
Oscillator	
Out-of-the-Money (OTM)	
Outstanding Shares	
Over-the-Counter (OTC)	
Overbought	
Overnight Session	
Oversold	
Overvalued	

P

Term	Your definition (say it or write it)
P/E Ratio (Price-to-Earnings)	
Panic Selling	
Paper Trading	
Par Value	
Partial Fill	
Pattern (Chart Pattern)	
Pattern Day Trader (PDT)	
Penny Stock	
Pip	
Pivot Point	
Point (Futures)	
Portfolio	
Position	
Position Sizing	
Pre-Market Trading	
Premium	
Price Action	
Price Improvement	
Price Target	
Primary Market	
Profit and Loss (P&L)	
Profit Margin	
Profit Target	
Protective Put	
Public Company	
Pullback	
Pump and Dump	

Term	Your definition (say it or write it)
Put Option	
Put/Call Ratio	

Q

Term	Your definition (say it or write it)
QQQ	
Quadruple Witching	
Quantitative Easing (QE)	
Quarterly Earnings Report	
Quick Ratio	
Quote	

R

Term	Your definition (say it or write it)
Rally	
Range	
Rate Hike and Rate Cut	
Real-Time Quote	
Realized Gain or Loss	
Rebalancing	
Recession	
Regular Trading Hours (RTH)	
Regulation T (Reg T)	
Relative Strength Index (RSI)	
Resistance	
Retracement	
Return	
Revenue	
Reversal	
Reward-to-Risk Ratio	
Risk	
Risk Management	
Risk Tolerance	
Risk-On / Risk-Off	
Roll (Rolling a Position)	
Rotation (Sector Rotation)	
Round Lot	
Round Trip	

S

Term	Your definition (say it or write it)
S&P 500	
Scalping	
Seasonality	
SEC (Securities and Exchange Commission)	
Secondary Market	
Secondary Offering	
Sector	
Sector Rotation	
Securities	
Sell-Off	
Sell to Close	
Sell to Open	
Session (Trading Session)	
Settlement	
Settlement Price	
Share	
Share Class	
Share Price	
Shares Outstanding	
Short Covering	
Short Interest	
Short Position	
Short Selling	
Short Squeeze	
Sideways Market	
Simple Moving Average (SMA)	
Slippage	

Term	Your definition (say it or write it)
Small-Cap Stock	
Speculation	
Spot Price	
Spread	
Standard Deviation	
Stock	
Stock Buyback	
Stock Dividend	
Stock Exchange	
Stock Index	
Stock Market	
Stock Quote	
Stock Screener	
Stock Split	
Stop Hunting	
Stop-Limit Order	
Stop Order (Stop Loss)	
Straddle	
Strangle	
Strike Price	
Supply and Demand	
Support	
Swing Trading	
Symbol (Ticker)	

T

Term	Your definition (say it or write it)
T+1 Settlement	
Take Profit	
Takeover	
Tape Reading	
Target Price	
Tax-Loss Harvesting	
Technical Analysis	
Theta	
Thin Market	
Tick	
Tick Value	
Time and Sales	
Time Decay	
Time Value	
Timeframe	
Top Line	
Total Return	
Trade Confirmation	
Trade Date	
Trade Journal	
Trader	
Trading Halt	
Trading Plan	
Trading Psychology	
Trading Range	
Trailing Stop	
Trailing Twelve Months (TTM)	

Term	Your definition (say it or write it)
Trend	
Trend Following	
Trendline	

U

Term	Your definition (say it or write it)
Uncovered (Naked) Option	
Underlying	
Underperform	
Underweight	
Underwriter	
Unlimited Risk	
Unrealized Gain or Loss	
Upside	
Uptick	
Uptrend	

V

Term	Your definition (say it or write it)
Valuation	
Value Stock	
Vega	
Vertical Spread	
VIX (Volatility Index)	
Volatility	
Volatility Crush (IV Crush)	
Volume	
Volume Profile	
VWAP (Volume-Weighted Average Price)	

W

Term	Your definition (say it or write it)
Wall Street	
Warrant	
Wash Sale	
Watchlist	
Wedge	
Weekly Options	
Weighting	
Whipsaw	
Working Order	
Writer (Option Writer)	

Y

Term	Your definition (say it or write it)
Year-over-Year (YoY)	
Year-to-Date (YTD)	
Yield	
Yield Curve	

Z

Term	Your definition (say it or write it)
Zero DTE (0DTE)	
Zero-Sum Market	

Part 2 — The Answers

A

Term	Definition
Account	The place at a brokerage firm where your money and investments are held. You deposit cash into it, and all your buying and selling happens through it.
Accredited Investor	A person the government allows to buy certain riskier, private investments because they meet income or wealth requirements set by regulators. Most everyday stocks and funds are open to everyone, accredited or not.
Acquisition	When one company buys another company. Example: if a giant company buys a small one, the small company's stock usually stops trading on its own.
Actively Managed Fund	A pooled investment where a professional manager hand-picks what to buy and sell, trying to beat the overall market. These usually charge higher fees than funds that simply copy an index.
Adjusted Close	A stock's closing price after it has been corrected for things like dividends and stock splits. It gives a truer picture of the stock's real return over time.
After-Hours Trading	Buying and selling stocks outside the regular market session of 9:30 AM to 4:00 PM Eastern Time. Prices can move more wildly then because fewer people are trading.
Algorithm	A set of step-by-step rules a computer follows to make decisions, such as when to buy or sell. Many large firms use algorithms to place trades automatically in a fraction of a second.
All-or-None Order	An order to buy or sell that must be filled completely, in full, or not at all. If the full amount is not available, the trade simply does not happen.
Alpha	A measure of how much an investment beat a comparison index, such as the S&P 500. If a fund returned 12% and its index returned 10%, the extra 2% is its alpha.
American Depositary Receipt (ADR)	A certificate traded on a US exchange that represents shares of a foreign company. It lets Americans invest in overseas companies without opening a foreign account.
American-Style Option	An option contract the owner can use (exercise) at any time before it expires, not just on the last day. Most options on individual US stocks work this way.

Term	Definition
Analyst	A professional who studies companies, their finances, and their industries, then publishes opinions on whether a stock looks attractive. Their views are opinions, not guarantees.
Annual Meeting	A yearly gathering where a company's leaders report to shareholders and shareholders vote on things like board members. Public companies are required to hold one.
Annual Report	A detailed yearly document a company publishes about its business and finances, including its audited financial statements. The official version filed with regulators is called a 10-K.
Annuity	A contract, usually sold by an insurance company, that pays you a series of payments over time in exchange for money you pay in. People often use annuities for retirement income.
Appreciation	An increase in the value of an investment. If you buy a stock at $40 and it rises to $55, that $15 rise is appreciation.
Arbitrage	Buying something in one place and selling it at the same moment in another place for a slightly higher price, pocketing the tiny difference. Computers do most of this now because the gaps last only instants.
Ask	Short for ask price: the lowest price a seller is currently willing to accept for a stock or contract. It is the price you will usually pay when you buy right away.
Ask Price	The lowest price any seller is offering at this moment. Example: if the ask price is $50.05, that is the cheapest you can buy a share for right now.
Ask Size	The number of shares or contracts sellers are offering at the ask price. It shows how much is available to buy at that cheapest offered price.
Asset	Anything of value that you own, such as cash, a house, or shares of stock. In trading, your assets are the money and investments in your account.
Asset Allocation	How you divide your money among different kinds of investments, like stocks, bonds, and cash. Example: 70% stocks and 30% bonds is one simple allocation.

Term	Definition
Asset Class	A group of similar investments, such as stocks, bonds, real estate, or commodities like gold and oil. Different classes tend to behave differently in the same economy.
Assignment	When the seller of an option is chosen to fulfill the contract — for example, being required to sell 100 shares at the agreed price because the buyer used their option. Sellers cannot control when this happens.
At-the-Close Order	An order that is carried out as close as possible to the market's closing price at the end of the day. Traders use it when they want the day's final price.
At-the-Money	Describes an option whose strike price (the set price in the contract) is equal, or very close, to the current price of the stock. A $50 call option on a $50 stock is at-the-money.
At-the-Open Order	An order that is carried out as close as possible to the market's opening price at the start of the day. If it cannot be filled at the open, it is usually cancelled.
Automatic Exercise	At expiration, an option that is in-the-money (worth using) by even a small amount is usually exercised automatically by the clearing system unless you instruct otherwise. Check your broker's exact rule so you are never surprised.
Average Daily Volume	The average number of shares of a stock that change hands on a typical trading day. High volume means lots of people are trading it, so buying and selling is usually easier.
Average True Range	A measuring tool (often shortened to ATR) that shows how much a stock's price typically moves in a day, including gaps. Traders use it to judge how jumpy a stock is and where to place stop losses.
Averaging Down	Buying more shares of something after its price has fallen, which lowers your average cost per share. It can help if the price recovers, but it also puts more money into a losing position, so it is risky.
Averaging Up	Buying more shares of something after its price has risen, which raises your average cost per share. Traders do this when a winning position keeps proving itself.

B

Term	Definition
Backtesting	Testing a trading strategy on old price data to see how it would have performed in the past. Good past results do not guarantee future profits.
Balance Sheet	A financial snapshot of a company at one moment, listing what it owns (assets), what it owes (liabilities), and what is left over for owners. It answers the question: what is this company worth on paper right now?
Bar Chart	A type of price chart where each bar shows a period's opening price, highest price, lowest price, and closing price. It packs the same information as a candlestick into simple lines.
Basis Point	One one-hundredth of a percent, written as 0.01%. If the Federal Reserve raises rates by 25 basis points, that means a 0.25% increase.
Bear Call Spread	An options strategy using two call contracts: you sell one call and buy a higher-priced call for protection, collecting money up front. It profits if the stock stays flat or falls, and both profit and loss are capped.
Bear Market	A long period when the overall market has fallen 20% or more from a recent high. Bear markets are painful but a normal part of investing history.
Bear Put Spread	An options strategy using two put contracts: you buy one put and sell a lower-priced put to reduce the cost. It profits if the stock falls, and both profit and loss are capped.
Bearish	Believing a price will go down. A bearish trader expects falling prices, just as a bear swipes its paws downward.
Benchmark	A standard used to compare performance against, usually an index like the S&P 500. If your account grew faster than your benchmark, you beat the market; slower, and you lagged it.
Beta	A number that measures how much a stock tends to swing compared with the overall market. A beta of 1 moves about with the market, 2 means roughly double the swings, and 0.5 means about half.
Bid	Short for bid price: the highest price a buyer is currently willing to pay for a stock or contract. It is the price you will usually get when you sell right away.

Term	Definition
Bid-Ask Spread	The gap between the bid price (what buyers offer) and the ask price (what sellers want). A wider gap means trading costs you more, because you buy at the higher price and sell at the lower one.
Bid Price	The highest price any buyer is offering at this moment. Example: if the bid price is $50.00, that is the most you can sell a share for right now.
Bid Size	The number of shares or contracts buyers want to purchase at the bid price. It shows how much demand is waiting at that highest offered price.
Block Trade	A single very large trade, usually at least 10,000 shares, often made by a big institution rather than an individual. Block trades are often arranged privately to avoid disturbing the market price.
Blue-Chip Stock	A share of a large, well-known, financially strong company with a long history, like the biggest household-name businesses. Blue chips are considered steadier than most stocks, though they can still fall.
Bollinger Bands	Lines drawn on a chart above and below a moving average, usually set two standard deviations (a measure of spread) away. The bands widen when a stock moves wildly and squeeze tight when it is calm, helping traders spot unusual moves.
Bond	A loan you make to a company or government: you hand over money, they pay you interest on a schedule, and they promise to return your money on a set date. Bonds are generally calmer than stocks but usually grow more slowly.
Bond Yield	The return a bond pays, expressed as a percentage of its price. When a bond's price falls, its yield rises, and when its price rises, its yield falls.
Book Value	What a company would be worth on paper if it sold everything it owns and paid off everything it owes. Book value per share divides that number by the number of shares.
Bracket Order	An order that bundles three instructions: buy (or sell), plus a profit-taking price and a stop-loss price attached. Whichever exit price is hit first closes the trade automatically.

Term	Definition
Break-Even Point	The price at which a trade makes no profit and no loss. For a bought call option, it is the strike price plus the premium paid; for a bought put, it is the strike price minus the premium.
Breakout	When a price pushes through a level where it kept stopping and turning around before, often with heavy trading. Traders watch breakouts because a strong move sometimes follows.
Broker	A licensed company (or its representative) that carries out buy and sell orders for customers in exchange for fees. Your brokerage account is held with a broker.
Bull Call Spread	An options strategy using two call contracts: you buy one call and sell a higher-priced call to lower the cost. It profits if the stock rises, and both profit and loss are capped.
Bull Market	A long period when the overall market has risen 20% or more from a recent low. Bull markets reward patience but eventually always end.
Bull Put Spread	An options strategy using two put contracts: you sell one put and buy a lower-priced put for protection, collecting money up front. It profits if the stock stays flat or rises, and both profit and loss are capped.
Bullish	Believing a price will go up. A bullish trader expects rising prices, just as a bull thrusts its horns upward.
Business Cycle	The repeating pattern of the economy growing for a while, then slowing or shrinking, then recovering. Different kinds of companies tend to do well at different stages of the cycle.
Buy and Hold	A strategy of buying an investment and keeping it for years through ups and downs, rather than trading in and out. It is the approach most long-term investors use.
Buy to Close	An order that closes a position you previously sold short, by buying back the same stock or option contract. After it fills, that short position is gone.
Buy to Open	An order that starts a brand-new long position, such as buying an option contract you did not own before. It is the first half of a trade; buy to close or sell to close ends it.

Term	Definition
Buyback	When a company purchases its own shares back from the market, reducing the number of shares in public hands. Fewer shares can make each remaining share represent a bigger slice of the company.

C

Term	Definition
Call Option	A contract giving you the right, but not the duty, to buy 100 shares of a stock at a set price (the strike price) any time before a set date. You pay a premium for this right, and that premium is the most you can lose.
Candlestick	A chart shape that shows a period's opening price, closing price, and the high and low in between, using a thick body and thin wicks. Green usually means the price rose during the period; red means it fell.
Capital	The money and assets you have available to invest or run a business. In trading, your capital is the cash you could put at risk.
Capital Gain	The profit you make when you sell an investment for more than you paid for it. Example: buy at $50, sell at $70, and your capital gain is $20 per share.
Capital Gains Tax	The tax you may owe on a capital gain after you sell. Investments held over a year usually get a lower tax rate than ones held a year or less; this is educational only, not tax advice — talk to a tax professional.
Capital Loss	The loss you take when you sell an investment for less than you paid for it. Example: buy at $70, sell at $50, and your capital loss is $20 per share.
Capitalization	Also called market cap: the total value of a company in the stock market, found by multiplying the share price by the number of shares. A $100 stock with 1 billion shares has a capitalization of $100 billion.
Cash Account	A brokerage account where you can only trade with money you have actually deposited and settled — no borrowing. It is the simplest and safest account type for beginners.
Cash Flow	The movement of money into and out of a business or account over a period. A company with strong positive cash flow takes in more cash than it spends.
Cash Settlement	When a contract is settled by paying the cash difference in value instead of delivering the actual item, like shares or barrels of oil. Index options such as SPX settle this way.

Term	Definition
Catalyst	A news event or announcement that pushes a stock's price to move, such as an earnings report, a new product, or a government decision. Traders watch calendars to know when catalysts are coming.
Chart	A picture of how a price has moved over time. Charts are the main tool traders use to study past price behavior and plan trades.
Chart Pattern	A recognizable shape that prices sometimes form on a chart, like a triangle or a double top, which traders watch for clues about what might happen next. Patterns are tendencies, not promises.
Circuit Breaker	A pre-set rule that temporarily pauses trading across the market after a very sharp fall, giving everyone time to calm down and absorb news. Individual stocks have similar pause rules for extreme moves.
Clearing House	A neutral middleman organization that stands between buyers and sellers to make sure every trade is completed and paid as promised. It greatly reduces the risk that one side fails to deliver.
Closing Bell	The bell rung at 4:00 PM Eastern Time that signals the end of the regular trading day on the New York Stock Exchange. After it, regular trading hours are over.
Closing Price	The final price at which a stock or contract traded during a regular trading session. It is the price most often quoted in news reports about the day.
Collar	An options strategy where you own a stock, buy a protective put (insurance against a fall), and pay for it by selling a call that caps your upside. It limits both your possible loss and your possible gain.
Commission	A fee a broker charges for executing a trade. Many US brokers now charge zero commission on stock trades but still charge a per-contract fee on options — check your broker for the current number.
Commodity	A basic raw product that is the same no matter who produces it, like oil, gold, wheat, or coffee. Commodities are traded heavily with futures contracts.

Term	Definition
Common Stock	The standard ownership shares of a company that most people buy, usually carrying voting rights on company matters. If a company fails, common stockholders are paid last, after lenders and bondholders.
Compound Interest	Earning interest not only on your original money but also on the interest it has already earned, so growth snowballs over time. Starting early matters more than starting big.
Consolidation	A period when a price moves sideways within a fairly tight range after a bigger move, as buyers and sellers take a breather. Traders watch for the price to break out of the range.
Consumer Price Index (CPI)	A government report measuring how much everyday goods and services cost compared with before — the most watched measure of inflation. CPI releases often move the whole market because they influence interest-rate decisions.
Contango	When futures contracts for later months cost more than contracts for nearer months, which is the normal pattern for many commodities. It reflects costs like storage and insurance over time.
Contract	A standardized legal agreement traded on an exchange, such as an option or futures contract, that spells out exactly what is being bought or sold, how much, and by when. One standard stock option contract covers 100 shares.
Contract Month	The month in which a futures contract expires and must be settled or rolled into a later month. Traders name futures by their contract month, like the December crude oil contract.
Contrarian	An investor who deliberately goes against the crowd — buying when most people are fearful and prices are beaten down, or pulling back when everyone is euphoric. It sounds simple but is emotionally very hard.
Correction	A market or stock decline of 10% or more from a recent high, but less than the 20% that defines a bear market. Corrections are common and usually healthy, even though they feel scary.

Term	Definition
Cost Basis	The total original cost of an investment, including the purchase price and fees, used to figure out your profit or loss and your taxes. If you paid $500 for shares plus a $5 fee, your cost basis is $505.
Coupon	The regular interest payment a bond makes to its owner, usually expressed as a yearly percentage of the bond's face value. A $1,000 bond with a 5% coupon pays $50 a year.
Covered Call	Selling a call option on a stock you already own at least 100 shares of, collecting the premium as income. Your shares cover the obligation if the buyer exercises, but your upside is capped at the strike price.
Credit Spread	An options strategy where you sell one option and buy another of the same type further from the money, receiving more premium than you pay. Your maximum loss is capped at the gap between the two strike prices minus the credit you received.
Currency	The money of a country, such as US dollars, euros, or Japanese yen. Currencies are traded in pairs, betting that one will strengthen against the other.
Current Ratio	A quick health check for a company: its current assets (things convertible to cash within a year) divided by its current liabilities (bills due within a year). A ratio above 1 means it can cover its near-term bills on paper.
Cyclical Stock	A stock whose business rises and falls with the economy, like airlines, car makers, and hotel chains. These companies earn the most when times are good and suffer first when times turn bad.

D

Term	Definition
Dark pool	A private trading venue where big investors buy and sell away from the public exchanges, so their large orders do not move the price before they finish. Regular investors buy and sell on public exchanges instead.
Day order	An order to buy or sell that cancels automatically if it has not filled by the end of that trading day. If you place a day order at 10 AM and it never executes, it is gone at the 4 PM close.
Day trade	Buying and selling the same stock or option on the same day, opening and closing the position before the market closes. Buying shares at 10 AM and selling them at 2 PM is one day trade.
Day trader	Someone who makes day trades often, trying to profit from small price moves within a single day. Brokers flag very frequent day traders in margin accounts, and special equity rules can apply — the classic rule required $25,000 in the account, regulators have been replacing it with intraday-margin standards, so check your own broker's current rule.
Dead cat bounce	A small, brief price rise in the middle of a bigger fall, after which the price keeps dropping. It tricks some buyers into thinking the worst is over when it is not.
Debit	Money you pay out to open a trade. If an option spread costs you $200 to open, that $200 is a debit.
Debit spread	An options trade with two parts (one bought, one sold) that you pay money to open. For a basic debit spread, the most you can lose is the amount you paid, and the most you can gain is the spread's width minus what you paid.
Debt	Money that is owed. A company with debt has borrowed money it must pay back, the same way a person owes money on a loan.
Deep in the money	Describes an option that already has a lot of built-in value because the stock price is far past the strike price. Example: a call with a $50 strike price while the stock trades at $70 is deep in the money.

Term	Definition
Deflation	The opposite of inflation: prices in general slowly falling over time, so a dollar buys more later than it does today. It sounds nice but can signal a weak economy.
Delisting	When a stock is removed from an exchange, usually because the company broke the exchange's rules or its price fell too low for too long. After delisting, the stock becomes much harder to buy and sell.
Delivery	In futures, the moment the actual goods behind a contract (like oil or gold) are due to change hands. Most traders close or roll their futures contracts before delivery so they never deal with real barrels or bars.
Delta	An options number that estimates how much an option's price will move if the stock moves $1. A delta of 0.40 means the option gains roughly $0.40 if the stock rises $1, and loses roughly $0.40 if the stock falls $1.
Demand	How much of something buyers want at a given price. When demand is high and supply is limited, prices tend to rise.
Derivative	A contract whose value comes from something else, like a stock, an index, or a commodity. Options and futures are derivatives — they have no value on their own, only through the thing they are based on.
Dip	A small, short-term drop in a price. "Buying the dip" means buying after that small drop, hoping the price climbs back.
Diversification	Spreading your money across different investments instead of putting it all in one. If you own 20 different stocks and one crashes, the other 19 soften the blow.
Dividend	A cash payment a company sends its shareholders — like a small thank-you check for owning the stock. Not every company pays one, and dividends are never guaranteed.
Dividend yield	A simple way to compare dividends: the yearly dividend divided by the stock price, shown as a percent. A stock at $50 paying $2 a year in dividends has a dividend yield of 4%.

Term	Definition
Doji	A single candlestick on a chart where the price opened and closed at almost the same place, leaving a very small body with wicks sticking out. It suggests buyers and sellers are evenly matched and undecided.
Dollar-cost averaging	Investing the same amount of money on a regular schedule, no matter the price — for example, $100 into an index fund every payday. You automatically buy more shares when prices are low and fewer when prices are high.
Double bottom	A chart pattern shaped like a W, where price fell to a low, bounced, and fell to about the same low again before rising. Some traders read it as a possible sign a downtrend is ending, but it is never a guarantee.
Double top	A chart pattern shaped like an M, where price rose to a high, pulled back, and rose to about the same high again before falling. Some traders read it as a possible sign an uptrend is ending, but it is never a guarantee.
Dow Jones Industrial Average	A famous index that tracks 30 very large, well-known US companies, such as Apple and Walmart. When news reports say "the Dow rose 200 points," this is the index they mean.
Downside	How much you could lose if a trade goes wrong. If you buy a stock at $40 and it could realistically fall to $30, your downside is about $10 a share.
Downtrend	A stretch where a price keeps making lower highs and lower lows, like a staircase going down. The general direction is down even though there are small bounces along the way.
Drawdown	The drop from a high point down to a low point, usually measured in your account or in a stock's price. If your account falls from $10,000 to $8,000, you are in a 20% drawdown.
Due diligence	Doing your homework before putting money into something: reading about the company, checking its finances, and understanding the risks. Never skip it just because someone online is excited.

E

Term	Definition
Earnings	A company's profit for a period of time, usually reported every three months. If a company brought in $1 billion and spent $800 million, its earnings are $200 million.
Earnings guidance	A company's own forecast for how it expects to do in the coming months, given when it reports earnings. Stocks often move sharply when a company raises or lowers its guidance.
Earnings per share	A company's profit divided by its number of shares, written as EPS. If a company earned $10 million and has 5 million shares, its EPS is $2 per share.
Earnings report	The official update a company publishes every three months showing its sales, profit, and outlook. Stock prices often jump or drop right after it comes out.
Earnings season	The few weeks, roughly in January, April, July, and October, when most big companies release their earnings reports one after another. Markets tend to be extra jumpy during these weeks.
Economic calendar	A schedule listing upcoming economic reports and events, like jobs numbers, inflation reports, and Federal Reserve meetings. Traders watch it because these events can move the whole market.
Economic indicator	A statistic that shows how the economy is doing, such as the unemployment rate or the inflation rate. Investors watch these numbers to guess where the economy and markets may head next.
Economic moat	A lasting advantage that protects a company from competitors, like a famous brand or being the cheapest producer. The term was popularized by investor Warren Buffett.
Elliott Wave Theory	The idea, followed by some chart traders, that prices move in repeating wave-like patterns driven by crowd psychology. It is a theory for reading charts, not a proven rule, and different traders often count the waves differently.
E-mini futures	Smaller, electronically traded futures contracts on indexes, like the ES, which tracks the S&P 500. Even smaller "micro" versions, like the MES, exist so beginners can trade with less money at risk per point.

Term	Definition
End of day	The close of the regular trading session, 4:00 PM Eastern Time for US stocks. Prices quoted as "closing prices" are from this moment.
Engulfing candle	A candlestick pattern of two candles where the second candle's body completely covers the first one's body. A green candle engulfing a red one after a drop can signal buyers taking over, and the reverse can signal sellers taking over.
Entry point	The price at which you get into a trade. If your plan says to buy a stock when it reaches $75, $75 is your entry point.
Equity	Ownership. Owning stock means owning equity in a company, and the word is also used for the total value of your trading account (your cash plus your positions).
Equity curve	A line graph showing the value of a trading account over time. A healthy equity curve generally climbs, while a jagged one crashing downward shows a strategy that is losing money.
ETF	Short for exchange-traded fund: a basket holding many stocks or bonds that you can buy and sell as a single ticker, like a stock, all day long. One share of an S&P 500 ETF gives you a tiny piece of all 500 companies at once.
European-style option	An option that can only be exercised on its expiration day, never before. Many index options work this way — SPX options are European-style and cash-settled.
Ex-dividend date	The first day a stock trades without the upcoming dividend attached. To receive a dividend, you must own the stock before this date; if you buy on or after it, the seller gets the payment instead.
Exchange	The marketplace where trades happen, such as the New York Stock Exchange (NYSE) or the Nasdaq. Think of it as the official store where stocks are bought and sold.
Exchange rate	How much one currency is worth in terms of another. If the EUR/USD rate is 1.10, one euro is worth $1.10.
Exercise	Using the right an option gives you. Exercising a call means buying 100 shares at the strike price; exercising a put means selling 100 shares at the strike price.

Term	Definition
Exercise price	Another name for an option's strike price: the set price at which the option lets you buy or sell the stock. A $150 exercise price means the trade happens at $150, no matter where the stock actually trades.
Expense ratio	The yearly fee a fund charges, shown as a percent of your money. An expense ratio of 0.10% means you pay $10 a year for every $10,000 invested in that fund.
Exit point	The price at which you plan to get out of a trade, either to take a profit or to cut a loss. Deciding your exit point before you enter is a core habit of careful traders.
Expiration date	The last day an options contract exists. After this date the option is gone — if it has value it is typically settled automatically, and if not, it expires worthless.
Extended-hours trading	Trading that happens before the regular 9:30 AM open (pre-market) or after the 4:00 PM close (after-hours). Fewer people are trading then, so prices can swing more and orders can fill at worse prices.
Extrinsic value	The part of an option's price that is above its built-in (intrinsic) value — you are paying for time left and expected movement. This is the part that melts away as expiration approaches.

F

Term	Definition
Face value	The amount a bond promises to pay back when it ends (matures), usually $1,000 per bond. It is also called par value.
Federal funds rate	The target interest rate, set by the Federal Reserve, that banks charge each other for overnight loans. It influences almost every other interest rate, from credit cards to mortgages.
Federal Reserve (Fed)	The central bank of the United States. Its job is to keep prices stable and employment strong, and its decisions on interest rates move the entire stock market.
Fibonacci retracement	A chart tool that draws lines at set percentages (like 38.2%, 50%, and 61.8%) of a price move, marking spots where a pullback might pause. Many traders watch these levels, though they are guidelines, not guarantees.
Fill	The completion of your order — the moment your buy or sell actually happens. A "fill price" is the exact price you got, which may differ slightly from the price you saw when you clicked.
Financial statement	One of a company's official report cards: the income statement (sales and profit), the balance sheet (what it owns and owes), and the cash flow statement (cash in and out). Public companies must publish these every quarter.
Fiscal year	A company's 12-month accounting year, which does not have to match the calendar year. A retailer might end its fiscal year in January, right after the holiday season.
Fixed income	Investments that pay a set, predictable stream of interest, mainly bonds. People call them fixed income because the payments are scheduled in advance, unlike stock dividends.
Flash crash	A sudden, severe market drop that reverses within minutes. In the famous 2010 flash crash, the Dow fell almost 1,000 points in minutes and then recovered most of it the same day.
Flat	Holding no position at all in something. If you sell all your shares of a stock, you are flat that stock — no risk, no reward from it until you buy again.

Term	Definition
Float	The number of a company's shares actually available for the public to trade. A stock with a small float (few shares available) can jump or crash quickly because even modest buying or selling overwhelms it.
FOMC	Short for Federal Open Market Committee, the group inside the Federal Reserve that votes on interest rates. It meets eight times a year, and its announcements are some of the most market-moving events on the calendar.
FOMO	Short for "fear of missing out": the urge to buy something just because its price is running up and everyone is talking about it. FOMO is a feeling, not a strategy, and it leads many beginners to buy at the worst moment.
Forex	Short for foreign exchange: the global market where currencies are traded in pairs, like euros against US dollars (EUR/USD). It is the largest market in the world and trades around the clock on weekdays.
Fractional share	A piece of a share, less than one whole share. If a stock costs $400 and you invest $50, you can own 0.125 of a share instead of nothing.
Freeriding	A cash-account violation: buying a stock with money that has not settled yet and selling it before that money arrives. Doing it can get your account restricted, so wait for funds to settle.
Front month	The futures contract that expires soonest and is usually the most actively traded. When traders say "the ES front month," they mean the nearest upcoming ES contract.
Front-running	When a broker or insider trades ahead of a big client order they know is coming, profiting from the price move that order will cause. It is illegal and unethical.
Fund	A pool of money collected from many people and invested together, such as a mutual fund or an ETF. Instead of picking one stock, your money is spread across everything the fund holds.
Fundamental analysis	Judging an investment by the health of the business itself: its sales, profit, debt, and competition, to decide what it is really worth. It is the opposite of technical analysis, which studies price charts.

Term	Definition
Futures	Contracts where two sides agree to trade something (like oil, gold, or a stock index) at a set price on a future date, and both sides must honor the deal. Futures use leverage, so gains and losses are magnified, and beginners can lose money very fast.
Futures contract	One single futures agreement. Each one has a standard size and dollar value per point — for example, each point the ES futures contract moves is worth $50.
Futures expiration	The last day a futures contract can trade before it ends. Traders who do not want delivery close the contract or roll it into the next month's contract before this date.

G

Term	Definition
Gain	A profit: you sold something for more than you paid for it. Buying at $30 and selling at $38 is a gain of $8 a share.
Gamma	An options number that shows how fast delta itself changes when the stock moves. High gamma means your option's delta will swing quickly, which makes the position more sensitive and harder to predict near expiration.
Gap	An empty space on a chart where the price opens much higher or lower than where it closed the day before, skipping the prices in between. Earnings news often causes gaps — a stock closing at $50 might open the next morning at $56.
Gap fill	When a stock's price later moves back across a gap, covering the empty space on the chart. If a stock gaps up from $50 to $56 and later falls back to $50, the gap is filled.
Globex	The CME Group's electronic trading platform, where most futures trades happen. It is why futures trade nearly around the clock, from Sunday evening through Friday afternoon, US Eastern Time.
Going long	Buying something because you expect its price to rise. If you own shares of a stock hoping they go up, you are long that stock — the most basic position there is.
Going public	When a private company sells shares to the general public for the first time so anyone can buy them on an exchange. This first sale is called an IPO, an initial public offering.
Going short	Selling something first, planning to buy it back cheaper later, because you expect the price to fall. It is risky: a stock you short can keep rising, so your losses can grow quickly and, with stocks, have no fixed limit.
Golden cross	A chart signal where a stock's 50-day average price crosses above its 200-day average price, after the stock has been rising. Some traders treat it as a hopeful long-term sign, but it is not a guarantee of future gains.

Term	Definition
Good faith deposit	A nickname for futures margin: the money you must park in your account to hold a futures contract. It is a deposit showing you can cover losses, not a loan and not the full price of the contract.
Good faith violation	A cash-account violation that happens when you buy a stock with money from a sale that has not settled yet, then sell that new stock before the money settles. Too many of these can get your account restricted for 90 days.
Good 'til canceled (GTC)	An order that stays active until it fills or you cancel it, instead of expiring at the end of the day. A GTC sell order at $60 will sit waiting even if the stock takes two weeks to get there.
Government bond	A loan you make to the US government, sold as a Treasury bond, note, or bill. These are considered among the safest investments in the world and pay you interest.
Greeks	A group of options numbers, named with Greek letters (delta, gamma, theta, vega, and rho), that measure different risks of an option, like how it reacts to price moves, passing time, and volatility. Traders check the Greeks the way a pilot checks dashboard gauges.
Gross domestic product (GDP)	The total dollar value of everything a country produces in a period of time. When GDP grows, the economy is expanding; when it shrinks for two quarters in a row, people often call it a recession.
Gross margin	The share of a company's sales left over after paying the direct cost of making its products, shown as a percent. If a company sells $100 of goods that cost $60 to make, its gross margin is 40%.
Gross profit	The same idea as gross margin, but in dollars instead of a percent: sales minus the direct cost of what was sold. $100 in sales minus $60 in product costs equals $40 of gross profit.
Growth investing	A strategy of buying companies expected to grow much faster than average, even if their stocks look expensive today. The bet is that future growth will be worth the high price.

Term	Definition
Growth stock	A stock of a company whose sales and profits are growing much faster than average. These companies usually pay no dividend because they reinvest everything into growing, and their prices can swing hard.

H

Term	Definition
Halt	A temporary pause in trading of a stock, set by the exchange. Halts usually happen when big news is coming out or a price is moving too wildly, and trading restarts a few minutes later.
Hammer Candle	A single candle (one bar on a chart) with a long lower tail and a small body near the top. After a fall, it can be an early sign that buyers are stepping in and price may turn up.
Hard Stop	A real stop order you place with your broker that sells automatically if price hits your level. It is "hard" because the broker's computer does it for you, even if you are not watching.
Hard to Borrow	A label for a stock that is difficult or expensive to borrow for short selling (betting it will fall). If a stock is hard to borrow, your broker may charge extra fees or block the short sale entirely.
Head and Shoulders	A chart pattern shaped like a head between two shoulders, made of three peaks where the middle peak is the highest. Traders watch it as a possible sign that an uptrend is tiring out and may reverse down.
Hedge	A second position you take to protect your main position, like insurance. Example: if you own a stock and fear a drop, you might buy a put option so a fall hurts less.
Hedge Fund	A private investment fund for wealthier investors that can use advanced strategies like short selling and leverage. Hedge funds have looser rules than the mutual funds everyday investors buy.
High Beta	Describes a stock that moves more than the overall market, both up and down. A stock with a beta of 2 tends to move about twice as much as the S&P 500, so it is riskier and jumpier.
High of Day	The highest price a stock or contract has traded at so far today, often shortened to HOD. Traders watch it because price pushing above it can signal strength.
High-Yield Bond	A bond from a company with a weaker credit rating, nicknamed a junk bond. It pays higher interest because there is a higher chance the company fails to pay you back.

Term	Definition
Higher High	A price peak that is higher than the peak before it. A series of higher highs (with higher lows) is the classic picture of an uptrend.
Higher Low	A price dip that stops at a higher level than the dip before it. It suggests buyers are stepping in earlier each time, which is a sign of an uptrend.
Higher Time Frame	A chart that shows a longer stretch of time per candle, like the daily or weekly chart instead of the 1-minute chart. Big-picture charts show the main trend that smaller charts must fit inside.
Historical Volatility	A measure of how much a stock's price actually moved in the past, based on real price history. It looks backward, unlike implied volatility, which looks forward.
Hold	Keeping a position you already own instead of selling it. If you bought shares and simply keep them while you wait, you are holding.
Holding Period	How long you own something before you sell it. For taxes, holding a stock more than one year usually gets a lower tax rate on profits than selling sooner.
Horizontal Level	A price drawn as a flat line across a chart where price has repeatedly stopped, bounced, or reversed before. Traders treat these levels as likely turning points in the future.
Hot Money	Money that moves in and out of an investment very quickly, chasing fast gains. Hot money rushes in when something is exciting and rushes out just as fast, making prices jumpy.
Hourly Chart	A price chart where each candle covers one hour of trading. Traders use it to see the trend inside the day without the noise of very small time frames.

I

Term	Definition
Implied Move	The amount the options market expects a stock to move up or down by a certain date, shown as a dollar amount or a percentage. Traders check it before earnings to see how big a swing is already "priced in."
Implied Volatility	Often shortened to IV, this is how much movement the market expects from a stock in the future, built into option prices. High IV makes options expensive; low IV makes them cheap.
In the Money	Describes an option that already has real value if used right now. Example: a call option with a $50 strike is in the money when the stock trades at $55, because you could buy at $50 and the stock is worth $55.
Income Statement	A company report showing how much money it made and spent over a period, ending with its profit or loss. It answers the basic question: did the business actually make money?
Index	A number that tracks the combined price movement of a group of stocks, like the S&P 500 (500 large companies). You cannot buy an index itself; you trade funds, futures, or options based on it.
Index Fund	A fund that simply copies an index, holding the same stocks in the same proportions. Because no manager is picking stocks, fees are usually very low.
Index Futures	Futures contracts based on a stock index, such as the S&P 500 futures (ES). Traders use them to bet on, or protect against, the whole market moving up or down.
Index Option	An option based on an index instead of a single stock, like SPX options. Index options are settled in cash (no shares change hands) and SPX options can only be exercised at expiration.
Indicator	A tool drawn on or under a chart that does math on price or volume to help you judge the trend or momentum. Examples include moving averages, MACD, and RSI; indicators suggest, they never guarantee.
Inflation	The general rise in prices over time, which means each dollar buys a little less than before. If inflation is 3%, something that cost $100 last year costs about $103 now.

Term	Definition
Initial Margin	The amount of money you must put up to open a leveraged position. For stocks it is usually 50% of the purchase; for futures it is a smaller good-faith deposit set by the exchange.
Initial Public Offering (IPO)	The first time a private company sells shares to the public and starts trading on an exchange. After the IPO, anyone with a brokerage account can buy the stock.
Inside Bar	A candle whose entire high-to-low range fits inside the candle before it, also called a "1" in The Strat system. It shows price pausing and coiling, and traders watch for a break out of it.
Insider Trading	Buying or selling a stock using secret, important information the public does not have yet. It is illegal, and company executives trading on inside knowledge can face heavy fines and prison.
Institutional Investor	A big organization that invests huge amounts of money, like a pension fund, bank, or hedge fund. Their large trades can move prices, so small traders watch what they do.
Interest Rate	The price of borrowing money, charged as a percentage per year. When the Federal Reserve raises or lowers rates, it affects loans, savings accounts, and usually stock prices too.
Intraday	Anything that happens within a single trading day. An intraday trader (day trader) opens and closes all positions before the market closes and holds nothing overnight.
Intrinsic Value	The built-in, real value of an option if it were used right now. A call with a $50 strike has $5 of intrinsic value when the stock is $55; anything above that in the option's price is time value.
Inverse ETF	A fund designed to go up when its index goes down, and down when the index goes up. It lets you profit from a falling market without short selling, but it is built for short-term trades, not long holds.
Investing	Buying something and holding it for months or years, expecting it to grow in value over time. It is the slower, longer-term cousin of trading.

Term	Definition
Investment Grade	A quality rating for bonds meaning the borrower is considered fairly safe and likely to repay. Bonds below investment grade are called high-yield or junk bonds.
Investor	Anyone who puts money into something hoping it grows. You become an investor the moment you buy your first share, fund, or bond.
Iron Butterfly	An options strategy using four options that profits most if the stock lands exactly on one middle price at expiration. Risk and reward are both capped, and it is an advanced strategy.
Iron Condor	An options strategy that sells both a call spread above the price and a put spread below it, collecting premium. You profit if the stock stays inside a range, and your maximum loss is capped and known up front.
IV Crush	The sharp drop in implied volatility right after a big expected event, like an earnings report, passes. Option prices can fall hard from IV crush even when the stock moves the way you predicted.
IV Rank	A number from 0 to 100 showing where today's implied volatility sits compared with its own range over the past year. Near 100 means options are unusually expensive versus their own history; near 0 means unusually cheap.

J

Term	Definition
January Effect	The idea that stock prices, especially smaller stocks, tend to rise more in January than in other months. It is a historical pattern some traders watch, not a promise it will happen.
Jobs Report	A monthly government report on how many jobs were added or lost and the unemployment rate, usually released on the first Friday of the month. It often moves the whole market within seconds because it hints at the economy's health.
Joint Account	A brokerage account owned by two people, such as spouses, where both can deposit money and place trades. Either owner can usually act on the account without the other's permission.
Journal	A written record of every trade you take, including why you entered, where you exited, and what you learned. Reviewing your journal is how traders find and fix their repeated mistakes.
Junk Bond	A nickname for a high-yield bond from a company with a weak credit rating. It pays high interest to make up for the real risk the company might not pay you back.

K

Term	Definition
Keltner Channels	An indicator that draws two bands above and below a moving average, spaced by how much price typically moves. Price bouncing between or breaking out of the bands helps traders judge trends and stretched moves.
Key Level	An important price where traders expect a reaction, such as a past high, a past low, or a round number like $500. Plans are often built around key levels: buy near support, sell or protect near resistance.
Know Your Customer (KYC)	The legal rule that brokers must verify who you are before opening your account. That is why signing up asks for your ID, address, and Social Security number.

L

Term	Definition
Large Cap	A big company, usually worth $10 billion or more, like Apple or Walmart. "Cap" is short for market capitalization, the total value of all its shares.
Last Price	The most recent price at which a stock or contract actually traded. It is the number most apps show in big digits next to the ticker.
Last Trading Day	The final day a futures or options contract can be traded before it expires. After this day the contract is settled, so traders must close or roll their position before it.
Level 2	A data feed showing the stack of waiting buy and sell orders at many prices, not just the best one. It helps traders see where large orders are sitting, though reading it well takes practice.
Leverage	Using borrowed power so a small amount of your money controls a much bigger position. Leverage multiplies gains and losses equally — a 10-to-1 leveraged position loses 10% of your money on just a 1% move against you.
Leveraged ETF	A fund that uses borrowing and derivatives to multiply an index's daily move, aiming for 2 or 3 times the return. Because it resets daily, holding it for weeks can produce surprising results, and it is risky for beginners.
Limit Move	The maximum amount a futures price is allowed to move in one session before the exchange pauses or restricts trading. It is a safety brake against panic moves.
Limit Order	An order to buy or sell only at your chosen price or better. A buy limit at $50 means you pay $50 or less — but if price never reaches $50, your order simply never fills.
Limit Price	The exact price you set on a limit order; the worst price you are willing to accept. For a buy it is your ceiling, and for a sell it is your floor.
Liquidation	Selling a position to turn it back into cash, whether by your choice or by force. If your margin account falls too far, your broker can liquidate (force-sell) your positions without asking.

Term	Definition
Liquidity	How easily something can be bought or sold without moving its price much. A heavily traded stock like Apple is very liquid; a rarely traded stock can be hard to exit at a fair price.
Liquidity Provider	A firm that constantly posts prices to buy and sell, making it easy for everyone else to trade. Their activity keeps markets smooth and bid-ask spreads small.
Liquidity Risk	The danger that you cannot sell something quickly at a fair price when you want out. It shows up in thinly traded stocks and options, where you may have to accept a much worse price.
Long	Owning something because you expect its price to rise. If you buy 10 shares of a stock, you are "long 10 shares," and you profit when the price goes up.
Long-Term Capital Gain	Profit from selling something you held for more than one year. In the US it is usually taxed at a lower rate than short-term profits — tax rules change, so check with a tax professional.
Long-Term Investing	Buying and holding for years through ups and downs instead of reacting to daily moves. Retirement accounts are the most common example.
Loss	What happens when you sell something for less than you paid, or a position moves against you. Small, planned losses are a normal cost of trading; the goal is keeping them small.
Loss Limit	A personal rule for the most you will lose before stopping, such as "I stop trading after losing $100 in a day." It protects your account on days when nothing is working.
Lot Size	The standard amount of something in one trade. One stock options contract covers 100 shares, and one futures contract covers a set amount defined by the exchange.
Low of Day	The lowest price a stock or contract has traded at so far today, often shortened to LOD. Traders watch it because dropping below it can signal weakness.
Lower High	A price peak that is lower than the peak before it. Combined with lower lows, it is the classic picture of a downtrend.

Term	Definition
Lower Low	A price dip that falls lower than the dip before it. It shows sellers are pushing price to new lows, a sign of a downtrend.

M

Term	Definition
MACD	An indicator (Moving Average Convergence Divergence) that compares two moving averages to show momentum — whether a trend is speeding up or slowing down. Traders watch its lines cross as a possible signal that momentum is changing.
Maintenance Margin	The minimum amount of money that must stay in your margin account while a position is open. If your account drops below it, you get a margin call.
Margin	Borrowed money or buying power from your broker that lets you control more than your cash alone could. For futures, margin means something different: a good-faith deposit you post to hold a contract, not a loan.
Margin Account	A brokerage account that lets you borrow money from the broker, use unsettled funds, and sell short. It offers flexibility but charges interest on loans and carries extra rules and risks.
Margin Call	A demand from your broker to add money or close positions because your account fell below the required minimum. If you do not act, the broker can sell your positions for you.
Mark Price	The fair, calculated value used for a futures contract at any moment, based on the underlying market. Brokers use it to figure your profit, loss, and margin fairly.
Mark to Market	The daily process of settling futures accounts: each day, gains are credited and losses are debited in cash based on the closing price. Your futures profit and loss becomes real money in the account every day.
Market Breadth	A measure of how many stocks are rising versus falling across the whole market. Strong breadth means most stocks are joining a move; weak breadth means only a few are carrying it.
Market Cap	The total value of a company in the stock market: share price multiplied by the number of shares that exist. A $50 stock with 100 million shares has a market cap of $5 billion.

Term	Definition
Market Crash	A sudden, steep fall in stock prices across the whole market, like the drops in 2008 and March 2020. Crashes are frightening but have historically been followed by recoveries over time.
Market Depth	The full picture of waiting buy and sell orders at many price levels, shown in Level 2 data. More depth means bigger orders can trade without moving the price much.
Market Hours	The times a market is open. US stock exchanges trade 9:30 AM to 4:00 PM Eastern on weekdays, while CME futures trade almost around the clock from Sunday evening to Friday.
Market Maker	A firm whose job is to always offer a price to buy and a price to sell, so trading never stalls. They earn money from the small gap between those two prices, called the spread.
Market Order	An order to buy or sell right now at whatever the current price is. It almost always fills immediately, but in a fast or thin market the price you get can be worse than expected.
Market Sentiment	The overall mood of traders — fearful, greedy, or somewhere between. Sentiment helps explain why prices sometimes move more than the news alone would suggest.
Market Timing	Trying to buy before rises and sell before falls based on predictions. It sounds simple but is famously hard, because you must be right twice: getting out and getting back in.
Max Pain	The price where, at expiration, the largest number of option contracts would expire worthless and option buyers as a group lose the most. Some traders watch it as a magnet price, though it is a theory, not a rule.
Maximum Loss	The most money a trade can possibly lose, if it can be known in advance. A bought option's maximum loss is the premium you paid; defined-risk spreads also have a fixed maximum loss.
Mean Reversion	The idea that prices that stretch far from their average tend to drift back toward it, like a rubber band snapping back. Traders who use it buy sharp dips and sell sharp spikes.

Term	Definition
Micro Futures	Smaller versions of popular futures contracts, one-tenth the size of the standard "E-mini" contracts. The Micro E-mini S&P 500 (MES) is worth $5 per point instead of $50, so beginners risk far less per trade.
Microcap Stock	A very small company, usually worth under $300 million. Microcaps can swing wildly and are often thinly traded, making them risky for beginners.
Mid Cap	A medium-sized company, usually worth between about $2 billion and $10 billion. Mid caps sit between small caps and large caps in both growth potential and stability.
Mid Price	The halfway point between the bid (what buyers offer) and the ask (what sellers want). Traders often try to get filled near the mid price instead of paying the full ask.
Mini (E-mini) Futures	The standard-sized electronic futures contracts on stock indexes, like the E-mini S&P 500 (ES), worth $50 per point. They are the most heavily traded futures in the world, and the micro contracts are their one-tenth-size versions.
Momentum	The tendency of prices that are moving strongly in one direction to keep moving that way for a while. Momentum traders buy what is rising and sell what is falling, following the move rather than fighting it.
Money Market Fund	A very conservative fund that holds short-term, low-risk debt and aims to keep its value at $1 per share. Many brokers park your uninvested cash in one automatically.
Moneyness	The relationship between a stock's price and an option's strike price. It describes whether an option is in the money (has real value now), at the money (strike equals the stock price), or out of the money (no real value yet).
Moving Average	A line on a chart showing the average price over the last set number of candles, like the 20-day or 200-day average. It smooths out the bumps so the main trend is easier to see.
Multi-Leg Order	One order that buys and sells two or more options (or futures) together as a package, like a spread. It makes sure all parts fill together at one combined price.

Term	Definition
Multiplier	The number that turns an option's quoted price into its real cost. Stock options have a multiplier of 100, so a $2.50 premium really costs $2.50 × 100 = $250 per contract.
Mutual Fund	A pooled fund where many investors' money is combined and managed together, priced once per day after the market closes. Unlike ETFs, you cannot trade a mutual fund during the day.

N

Term	Definition
Naked Option	An option sold by someone who does not own the shares or the offsetting position behind it. It can lose far more than the price it was sold for, so brokers only allow it for experienced traders with large accounts.
NASDAQ	A major American stock exchange where shares are bought and sold electronically. Many famous technology companies, like Apple and Microsoft, trade here.
Nasdaq-100	An index (a numbered scorecard) of 100 of the largest non-bank companies listed on the NASDAQ, mostly technology names. It is the index the popular QQQ fund follows.
Nasdaq Composite	An index that tracks nearly every stock listed on the NASDAQ exchange — more than 3,000 companies. When news reports say "the Nasdaq rose today," they usually mean this number.
Net Asset Value (NAV)	The value of everything a fund owns, minus what it owes, divided by its shares. It is the per-share worth of a fund, figured out at the end of each trading day for mutual funds.
Net Change	How much a price moved compared to the previous day's closing price. If a stock closed at $50 yesterday and $52 today, its net change is +$2.
Net Income	A company's profit after every cost, bill, and tax is paid. If a shop takes in $10,000 and spends $8,000 on everything, its net income is $2,000.
Net Liquidation Value (Net Liq)	The cash value of your whole account if you closed every position right now at current prices. Broker apps show this number as the real-time worth of your account.
New Highs and New Lows	A daily count of stocks reaching their highest or lowest price of the past year (usually 52 weeks). Lots of new highs suggests a strong market; lots of new lows suggests a weak one.
New York Stock Exchange (NYSE)	The largest stock exchange in the United States, based on Wall Street in New York City. Companies like Walmart and Coca-Cola trade here.

Term	Definition
News Catalyst	A news event that pushes a stock's price, such as an earnings report, a new product, or a government announcement. Traders watch for catalysts because quiet stocks often start moving when big news hits.
Nonfarm Payrolls (NFP)	A government report, usually released on the first Friday of each month, showing how many jobs the US economy added or lost. It often causes big, fast moves in stocks, futures, and currencies.
Notional Value	The total dollar value a futures contract controls, found by multiplying the contract size by the price. One oil futures contract controls 1,000 barrels, so at $70 a barrel its notional value is $70,000 — far more than the deposit you put down.

O

Term	Definition
Odd Lot	An order for fewer than 100 shares of a stock. Buying 25 shares is an odd lot; it still works fine, it is just smaller than the standard block.
Offer (Ask Price)	The lowest price a seller is currently willing to accept for a stock or contract. When you buy at market, this is roughly the price you pay.
OHLC (Open, High, Low, Close)	The four key prices of any time period: where it started, the highest trade, the lowest trade, and where it ended. Every candle on a chart is drawn from these four numbers.
Open	The price of the first trade of the day (or of any candle's time period). The word is also a verb — to "open" a position means to start a new trade.
Open Interest	The total number of option or futures contracts that exist right now and have not been closed, exercised, or expired. High open interest means lots of traders are involved in that contract.
Open Order	An order you have placed that has not filled yet and has not been canceled. A limit order waiting for your price is an open order.
Open Position	Any trade you are still holding. If you own 50 shares of a stock right now, that is an open position until you sell them.
Opening Bell	The bell rung at 9:30 a.m. Eastern Time that starts regular US stock market hours. Prices often move quickly in the first minutes after it rings.
Opening Range	The high and low prices from the first few minutes of the trading day, often the first 5, 15, or 30 minutes. Many day traders watch this range as a map for the rest of the day.
Option	A contract that gives you the right, but not the obligation, to buy or sell a stock at a set price (the strike price) before a set date (the expiration). You pay a fee, called the premium, for that right.
Option Chain	The big price list for a stock's options, showing every strike price and expiration date with the current price of each call and put. Think of it as the menu you order options from.

Term	Definition
Option Contract	One single option. A standard stock option contract controls 100 shares, so a premium quoted at $2.50 costs you $250 for one contract.
Option Seller (Writer)	The person on the other side of an option trade, who collects the premium and takes on the obligation if the buyer uses the option. Selling options can bring in income but can carry large risk.
Options Approval	Permission your broker gives you to trade options, granted in levels based on your experience and account. Beginners usually start with basic levels, like buying calls and puts, before spreads or selling options are allowed.
Options Expiration	The date an option contract ends. If the option has no value by the end of that day, it expires worthless and the buyer loses the premium paid.
Order	An instruction you give your broker to buy or sell. A market order fills right away at the current price, while a limit order only fills at your chosen price or better.
Order Book	The live list of buy and sell orders waiting at different prices for a stock or contract. Traders look at it to see how many buyers and sellers are lined up.
Order Flow	The stream of buy and sell orders coming into the market right now. Watching order flow helps some traders judge whether buyers or sellers are more aggressive at the moment.
Oscillator	A technical indicator that swings back and forth between set bounds, like 0 and 100, to suggest a stock may have risen or fallen too far, too fast. The RSI is the most famous example.
Out-of-the-Money (OTM)	Describes an option with a strike price that is currently on the losing side. A call is out-of-the-money when its strike is above the stock price; a put is out-of-the-money when its strike is below it — such options are cheaper but need a bigger move to pay off.
Outstanding Shares	The total number of a company's shares that exist and are held by all investors. Multiply this by the share price and you get the company's market cap (total value).

Term	Definition
Over-the-Counter (OTC)	Trading that happens away from the big exchanges like the NYSE and NASDAQ, usually in tiny, little-known companies. OTC stocks follow looser rules and are much riskier than exchange-listed stocks.
Overbought	A word traders use when a price has risen a lot in a short time and may be due for a pause or pullback. An RSI reading above 70 is a common overbought signal, but it is a hint, not a guarantee.
Overnight Session	Trading that happens outside regular daytime hours. Futures trade nearly around the clock on weekdays, and stocks can trade in pre-market and after-hours sessions with less activity.
Oversold	The opposite of overbought: a price has fallen a lot in a short time and may be due for a bounce. An RSI reading below 30 is a common oversold signal, but prices can keep falling anyway.
Overvalued	When a stock's price looks higher than the underlying business seems to be worth, based on its earnings, sales, or growth. An overvalued stock can be a great company and still be a risky buy at that price.

P

Term	Definition
P/E Ratio (Price-to-Earnings)	A popular way to judge whether a stock is cheap or expensive: share price divided by the company's yearly profit per share. A $100 stock earning $5 per share has a P/E of 20, meaning buyers pay $20 for each $1 of yearly profit.
Panic Selling	When frightened investors all rush to sell at once, pushing prices down fast. It often happens after bad news and can make prices drop far below what a company is really worth.
Paper Trading	Practicing with a pretend-money account that uses real market prices. It lets you learn how orders, options, and futures work without risking a single real dollar.
Par Value	The face value printed on a bond or stock certificate — the amount a bond promises to pay back at the end. US bonds are commonly issued with a par value of $1,000.
Partial Fill	When only part of your order gets completed because there were not enough buyers or sellers at your price. If you ordered 200 shares and only 120 traded, you got a partial fill.
Pattern (Chart Pattern)	A shape that price repeatedly draws on a chart, such as a triangle or a flag, that traders watch for clues about what might happen next. Patterns can help plan trades, but none of them work every time.
Pattern Day Trader (PDT)	A label for someone who makes four or more day trades within five business days in a margin account. Under the classic US rule, pattern day traders must keep at least $25,000 in account equity — but US regulators have been replacing this rule with new intraday-margin standards and brokers are transitioning, so check your own broker's current rule before relying on either version.
Penny Stock	A stock trading under $5 per share, usually from a very small company. Penny stocks can swing wildly, are hard to sell quickly, and are a favorite target of scams, so beginners should be extremely careful.
Pip	The smallest standard price step in currency (forex) trading, usually the fourth decimal place. If EUR/USD moves from 1.0850 to 1.0851, it moved one pip.

Term	Definition
Pivot Point	A price level worked out from the previous day's high, low, and close that traders use as a possible turning point. Prices often stall or reverse near pivot points, so many traders mark them on their charts.
Point (Futures)	A full 1.00 move in a futures price. Its cash value depends on the contract: on the E-mini S&P 500 (ES) one point is worth $50, while on the Micro version (MES) one point is worth $5.
Portfolio	Everything you own across your investment accounts — all your stocks, funds, options, and cash combined. Looking at your portfolio means looking at the whole picture, not just one trade.
Position	One holding or trade you currently have open, like 100 shares of a stock or two option contracts. Traders say "I have a position in Apple" to mean they are in that trade right now.
Position Sizing	Deciding how much money to put into each trade before you enter it. Good position sizing makes sure one bad trade can never wipe out your account.
Pre-Market Trading	Trading that happens before the regular 9:30 a.m. Eastern open, available through most brokers. Prices can jump on overnight news, but fewer traders are active, so moves can be jumpy.
Premium	The price you pay to buy an option, quoted per share. Since one contract covers 100 shares, a $2.50 premium costs $250 per contract — and for a buyer, that $250 is the most you can lose on the trade.
Price Action	Reading the movement of price itself — the candles, trends, and support and resistance levels on a chart — instead of relying on indicators. It is the skill of watching what price is actually doing, bar by bar.
Price Improvement	When your broker fills your order at a better price than the one publicly quoted. Even a few cents of price improvement per share adds up over many trades.
Price Target	The future price an analyst predicts a stock will reach, usually within about a year. It is an educated opinion, not a promise — analysts are often wrong.

Term	Definition
Primary Market	Where brand-new securities are sold for the very first time, like a company selling shares to the public in an IPO. Money paid here goes to the company itself, not to another investor.
Profit and Loss (P&L)	The total amount of money you have made or lost. A gain or loss is "realized" once you sell and lock it in; before that it is "unrealized" — just on paper, and it can still change.
Profit Margin	The share of a company's sales it keeps as profit after costs. If a company sells $100 of goods and keeps $10 as profit, its profit margin is 10%.
Profit Target	A price or profit level you choose in advance where you plan to sell and take your winnings. Setting a profit target before entering stops greed from making your decisions mid-trade.
Protective Put	A put option bought by someone who owns the stock, as insurance. If the stock falls hard, the put gains value and cushions the loss, like a seatbelt for your shares.
Public Company	A company whose shares are sold to the general public on a stock exchange, so anyone can buy a piece of it. Apple and Walmart are public companies; your local family restaurant is not.
Pullback	A temporary dip in price during an overall uptrend, like a short rest during a climb. Traders often wait for a pullback to buy at a slightly better price.
Pump and Dump	A scam where promoters hype up a cheap stock so the price rises ("pump"), then sell their own shares at the top and leave everyone else holding the crash ("dump"). It is illegal and mainly targets beginners — avoid any stock being pushed by strangers online.
Put Option	A contract giving you the right to sell 100 shares at the strike price before expiration. Puts generally gain value when the stock falls; for example, a $50 put bought for $2.00 breaks even at $48 at expiration.
Put/Call Ratio	The number of put options traded compared to calls in a market or stock. A high ratio means traders are buying more downside protection (fear); a low ratio suggests more optimism.

Q

Term	Definition
QQQ	The ticker symbol of a hugely popular fund (ETF) that tracks the Nasdaq-100 index. Buying one share of QQQ is like buying a small slice of 100 big Nasdaq companies at once.
Quadruple Witching	A day, four times a year (the third Friday of March, June, September, and December), when several kinds of options and futures contracts expire at the same time. These days often bring extra trading volume and sharper price swings.
Quantitative Easing (QE)	When the US central bank (the Federal Reserve) buys large amounts of bonds to pump money into the financial system and push interest rates down. It is meant to encourage borrowing and spending, and markets often rise while it runs.
Quarterly Earnings Report	A report card every public company must publish about every three months, showing its sales and profits. Stock prices can jump or drop sharply in the hours after one is released.
Quick Ratio	A simple check of whether a company could pay its near-term bills using only its most easily-sold assets, like cash. A ratio above 1 means it has more quick assets than short-term debts.
Quote	The current prices being offered for a stock or contract: the bid (what buyers will pay) and the ask (what sellers want). When you "get a quote," you are seeing those live numbers.

R

Term	Definition
Rally	A strong rise in a price over hours, days, or weeks. After weeks of falling, a market that climbs steadily for several days is said to be rallying.
Range	The distance between a price's high and its low over a period, or the zone a price keeps bouncing inside, between support below and resistance above. A stock trapped between $90 and $100 is "trading in a range."
Rate Hike and Rate Cut	When the Federal Reserve raises (hike) or lowers (cut) its main target interest rate. Hikes make borrowing more expensive and often pressure stocks; cuts do the opposite.
Real-Time Quote	A price that is live right now, with no delay. Some free websites and apps show prices delayed by 15 minutes or more, which is too slow for active trading.
Realized Gain or Loss	A profit or loss that is final because you have closed the trade. If you buy at $40 and sell at $46, your $6-per-share gain is realized — it is yours to keep.
Rebalancing	Adjusting your portfolio back to your planned mix after prices move. If your plan was 60% stocks and 40% bonds and stocks grew to 70%, rebalancing means selling some stocks and buying bonds to restore the mix.
Recession	A period when the overall economy shrinks and business slows down, often described as two quarters (six months) in a row of falling economic output. Jobs get harder to find, company profits fall, and stock markets usually struggle.
Regular Trading Hours (RTH)	The main US stock market session: 9:30 a.m. to 4:00 p.m. Eastern Time, Monday through Friday, excluding holidays. This is when trading is busiest and prices are most reliable.
Regulation T (Reg T)	The US rule that lets a broker lend you up to 50% of the purchase price when you first buy stock in a margin account. Buy $10,000 of stock and you must put up at least $5,000 of your own money at the start.

Term	Definition
Relative Strength Index (RSI)	A popular indicator that scores recent price momentum from 0 to 100. Readings above 70 suggest a stock may be overbought, and readings below 30 suggest it may be oversold — signals to pay attention, never guarantees.
Resistance	A price level where a rising stock keeps getting pushed back down, like a ceiling. If a stock fails to get past $100 three times, traders call $100 resistance.
Retracement	A partial move back against the main trend. If a stock climbs from $100 to $120 and then slips to $110, it has retraced half of the move — traders watch these pullbacks for chances to join the trend.
Return	The gain or loss on your money, usually shown as a percentage. Making $100 on a $1,000 investment is a 10% return.
Revenue	The total money a company takes in from selling its products or services, before subtracting any costs. It is also called sales or the "top line" because it sits at the top of the financial report.
Reversal	When a price trend changes direction — an uptrend ends and prices start falling, or a downtrend ends and prices start rising. Catching the exact moment of a reversal is one of the hardest things in trading.
Reward-to-Risk Ratio	A comparison of how much you could make on a trade versus how much you could lose, worked out before you enter. Risking $100 to aim for $300 is a 3-to-1 reward-to-risk ratio.
Risk	The chance that you will lose money on a trade or investment. Every trade has risk; the goal of learning is not to remove it, but to control how much of it you take.
Risk Management	The set of habits and rules that protect your account: sizing positions small, using stop losses, and never betting too much on one idea. It is the main skill that separates long-lasting traders from gamblers.
Risk Tolerance	How much loss and how big a price swing you can handle, both in your wallet and in your stomach. A person who cannot sleep when their account drops 10% has a low risk tolerance and should trade smaller.

Term	Definition
Risk-On / Risk-Off	A quick way to describe the market's mood. "Risk-on" means investors feel brave and buy stocks and other growth assets; "risk-off" means they feel cautious and move toward safer assets like cash and bonds.
Roll (Rolling a Position)	Closing a contract that is about to expire and opening the same kind of position in a later expiration, to keep the trade going. Futures traders roll to the next month's contract, and option traders roll to a later date (and sometimes a different strike).
Rotation (Sector Rotation)	When big investors move money out of one group of stocks and into another — for example, out of technology and into energy. Watching rotation shows where money is flowing across the market.
Round Lot	The standard block of 100 shares of a stock. Prices are often quoted and big orders filled in round lots, though today anyone can buy even a single share.
Round Trip	One complete trade: opening a position and closing it again. Buying a stock on Monday and selling it on Tuesday is one round trip.

S

Term	Definition
S&P 500	A list of 500 of the biggest companies in the United States, tracked as one number that goes up and down. When people say "the market went up today," they often mean this list went up.
Scalping	A very fast style of trading where you buy and sell within minutes, or even seconds, trying to grab tiny profits many times a day. It is fast, stressful, and hard for beginners.
Seasonality	The idea that prices sometimes follow patterns tied to the time of year, like certain months often being stronger than others. It is a tendency, not a guarantee.
SEC (Securities and Exchange Commission)	The United States government agency that polices the markets. It makes the rules public companies and brokers must follow and punishes fraud.
Secondary Market	The market where regular people buy and sell stocks to each other after the shares first exist. Almost everything you will ever trade happens here, on exchanges like the New York Stock Exchange and Nasdaq.
Secondary Offering	When a company sells more new shares after it is already public. It raises cash for the company but can push the price down because there are now more shares sharing the same company.
Sector	A group of companies that do similar business, like technology, healthcare, energy, or banks. Traders watch sectors because stocks in the same sector often move together.
Sector Rotation	When big investors move money from one sector into another as the economy changes. For example, money might leave technology stocks and flow into energy stocks.
Securities	A general word for tradable financial assets: stocks, bonds, options, and similar products. If you can buy and sell it on a market, it is probably a security.
Sell-Off	A sudden wave of selling that pushes prices down quickly. It often happens when bad news scares many holders into selling at the same time.

Term	Definition
Sell to Close	An order that sells an option you already own, ending that position. If you bought a call for $200 and sell to close at $300, you keep the $100 difference minus fees.
Sell to Open	An order that creates a brand-new short option position by selling an option you do not own yet. You collect money (the premium) up front but take on an obligation, which can be risky.
Session (Trading Session)	One full day of trading. For US stocks, the regular session runs 9:30 AM to 4:00 PM Eastern Time.
Settlement	The final step of a trade, when the money and the shares officially change hands and become fully yours. Buying a stock feels instant, but settlement happens behind the scenes a little later.
Settlement Price	The official closing price a futures exchange sets at the end of each day. Your futures account gains and losses are calculated from this price.
Share	One small unit of ownership in a company. If a company has 1,000 shares and you own 10, you own 1% of that company.
Share Class	Some companies sell different types of shares, often called Class A and Class B. They may carry different voting power even though they represent ownership in the same company.
Share Price	The cost of one single share of a stock at a given moment. If a stock shows $50, that is the price for one share, not the whole company.
Shares Outstanding	The total number of shares of a company that exist and are held by everyone. Multiply this by the share price and you get the company's total market value (market cap).
Short Covering	Buying back shares you previously sold short, which closes your short position. If many short sellers cover at once, the rush of buying can push the price up fast.
Short Interest	The total number of a stock's shares that have been sold short and not yet bought back. High short interest means many traders are betting the price will fall.

Term	Definition
Short Position	A position that profits when a price goes down and loses when it goes up. You can be short by selling shares you borrowed, or by holding options that gain when price falls.
Short Selling	Borrowing shares from your broker, selling them at today's price, and hoping to buy them back cheaper later to return them. If the price rises instead, losses can keep growing with no limit.
Short Squeeze	When a heavily shorted stock jumps in price and short sellers rush to buy back shares to stop their losses. That extra buying pushes the price even higher, very fast.
Sideways Market	A market that drifts up and down inside a range without a clear direction. Prices move, but they do not really go anywhere over time.
Simple Moving Average (SMA)	A line on a chart that averages a stock's price over a set number of days, like the last 50 days. It smooths out daily wiggles so the bigger trend is easier to see.
Slippage	The small difference between the price you expected and the price your order actually filled at. It happens most when prices move fast or few people are trading.
Small-Cap Stock	A stock of a smaller company, usually worth between about $300 million and $2 billion in total. Small-caps can grow fast but tend to swing more and are riskier than big-company stocks.
Speculation	Buying something mainly because you hope its price moves your way soon, accepting a real chance of losing money. It is different from long-term investing, and most trading is speculation.
Spot Price	The price of something right now, for immediate delivery. When a news report names the price of gold or oil, that is the spot price.
Spread	Most often, the small gap between the highest price a buyer offers (the bid) and the lowest price a seller accepts (the ask). It can also mean a trade built from two or more options at the same time.
Standard Deviation	A math measure of how much prices usually swing around their average. A bigger number means wilder, jumpier price movement.

Term	Definition
Stock	A piece of ownership in a company. When you buy a stock, you own a small slice of that business and your money rises or falls with it.
Stock Buyback	When a company uses its own cash to buy its shares back from the market. Fewer shares remain, so each remaining share represents a slightly bigger slice of the company.
Stock Dividend	A dividend paid in extra shares instead of cash. If you own 100 shares and get a 5% stock dividend, you receive 5 more shares.
Stock Exchange	An organized marketplace where stocks and other securities are bought and sold, like the New York Stock Exchange (NYSE) and Nasdaq. Exchanges enforce rules so trading is fair and orderly.
Stock Index	A number that tracks the combined performance of a chosen group of stocks, like the S&P 500 or the Nasdaq-100. You cannot buy an index directly; you trade funds, futures, or options based on it.
Stock Market	The whole system of exchanges and networks where company shares are bought and sold. It is where businesses raise money and everyday people invest.
Stock Quote	The latest price information for a stock: its last trade price, the current bid and ask, and how much it has moved today. Your broker app shows quotes all day long.
Stock Screener	A search tool that filters thousands of stocks by rules you pick, like price, size, or how much they moved today. It helps you find candidates instead of scrolling everything.
Stock Split	When a company cuts each share into several cheaper shares. In a 2-for-1 split, your 10 shares at $100 become 20 shares at $50 — you own the same total value.
Stop Hunting	When price briefly pushes past a level where many stop orders sit, triggering them, then reverses. It is one reason beginners sometimes get stopped out right before price goes their way.
Stop-Limit Order	An order that becomes a limit order once price reaches your stop price. It protects you from a terrible fill price, but if price jumps past your limit, the order may never fill at all.

Term	Definition
Stop Order (Stop Loss)	An order that sits waiting until price reaches your chosen level, then becomes a market order to get you out. Traders use it to cap a loss — for example, sell automatically if a $50 stock falls to $45.
Straddle	An options trade that buys a call and a put at the same strike price and expiration. It profits if the stock makes a big move in either direction, and loses if price stays quiet.
Strangle	Like a straddle, but the call and put have different strike prices, usually a put below the current price and a call above it. It costs less than a straddle but needs an even bigger move to profit.
Strike Price	The fixed price written into an option contract. A call's strike is the price you may buy the stock at; a put's strike is the price you may sell it at.
Supply and Demand	The basic engine of every price: more eager buyers than sellers pushes price up, and more eager sellers than buyers pushes it down. Every chart move comes back to this.
Support	A price area where a falling stock has tended to stop and bounce, like a floor. Buyers have stepped in there before, so traders watch to see if they do it again.
Swing Trading	A style of trading that holds positions for a few days to a few weeks, aiming to catch a medium-sized move. It is slower than day trading and does not require watching the screen all day.
Symbol (Ticker)	The short code that identifies a stock or fund, like AAPL for Apple or SPY for a popular S&P 500 fund. You type the symbol into your broker app to find and trade it.

T

Term	Definition
T+1 Settlement	The current US rule (since May 2024) that stock trades officially settle one business day after the trade. Sell a stock on Monday, and the cash is fully settled on Tuesday.
Take Profit	Deciding in advance the price at which you will sell and lock in a gain. Many traders place a take-profit order so the exit happens automatically instead of getting greedy.
Takeover	When one company buys control of another company. The target company's stock often jumps because the buyer usually pays more than the current price.
Tape Reading	Watching the live stream of actual trades — prices, sizes, and speed — to judge whether buyers or sellers are stronger right now. It is one of the oldest skills in trading.
Target Price	The price level where you plan for a trade to reach, or a price an analyst publishes as their estimate of a stock's value. It is a goal or opinion, never a promise.
Tax-Loss Harvesting	Selling a losing position on purpose near year-end so the loss can lower your taxes, while staying invested in something similar. Tax rules here are tricky, so this is educational only — talk to a tax professional.
Technical Analysis	Studying price charts and trading volume to make trading decisions, instead of studying the company's business. It assumes past price patterns and trends can help time entries and exits.
Theta	A measure of how much value an option loses each day just because time is passing. If an option's theta is −0.05, it loses about $5 per contract per day, all else equal.
Thin Market	A market or stock with very few buyers and sellers active. Prices can jump around on small orders, spreads get wide, and getting in or out at a fair price is harder.
Tick	The smallest amount a price is allowed to move. For most stocks one tick is one cent; for futures it varies by product, such as 0.25 points on the ES.

Term	Definition
Tick Value	The dollar value of one tick in a futures contract. On the ES, one tick (0.25 points) is worth $12.50 per contract; on the smaller MES it is $1.25.
Time and Sales	A live feed showing every trade as it happens: price, number of shares or contracts, and time. It is the raw data tape readers watch.
Time Decay	The daily shrinking of an option's time value as expiration gets closer. It speeds up in the final days, which is why bought options can melt away even when the stock barely moves.
Time Value	The part of an option's price that comes from time remaining and the chance of a big move, rather than from the stock's current price. A $60 call on a $55 stock trading at $2 is all time value.
Timeframe	The amount of time each candle or data point on your chart represents, like 1 minute, 1 hour, or 1 day. Day traders use short timeframes; investors use daily and weekly ones.
Top Line	A company's total sales (revenue), the first line on its earnings report. The "bottom line" is what is left as profit after all costs.
Total Return	Everything you earn from an investment combined: price gains plus dividends or interest. A stock up 5% that also paid a 2% dividend gave a total return of about 7%.
Trade Confirmation	The official record your broker sends after a trade, showing what you bought or sold, the price, and the fees. Always check it to make sure the trade matches what you intended.
Trade Date	The day a trade actually happens. This is different from the settlement date, which is when the money and shares officially change hands.
Trade Journal	A notebook or spreadsheet where you record every trade: why you entered, where you exited, and what you learned. Reviewing it is one of the fastest ways for beginners to improve.
Trader	A person who buys and sells in the markets, usually aiming for shorter-term moves than an investor. Traders can trade stocks, options, futures, and more.

Term	Definition
Trading Halt	A temporary pause in trading of a stock or the whole market, ordered by the exchange. Halts happen during extreme moves or while important news is released.
Trading Plan	A written set of rules you decide before trading: what you trade, when you enter, how much you risk, and when you exit. A plan keeps emotions from running your money.
Trading Psychology	How emotions like fear, greed, hope, and revenge affect trading decisions. Managing your mindset is often harder than learning the charts.
Trading Range	The space between a high price (resistance) and a low price (support) where a stock keeps bouncing back and forth. Traders say a stock is "range-bound" while it stays inside.
Trailing Stop	A stop order that follows the price as it rises, staying a set distance below it. If a stock climbs from $50 to $60, a $5 trailing stop rises to $55, locking in gains if price falls.
Trailing Twelve Months (TTM)	Numbers measured over the most recent 12 months, like a company's revenue for the last four reported quarters. It gives an up-to-date picture instead of using one calendar year.
Trend	The general direction a price is moving over time: up, down, or sideways. Many traders try to trade in the same direction as the trend rather than fighting it.
Trend Following	A strategy of jumping on established trends and riding them as long as they last, exiting when the trend breaks. It accepts many small losses to catch a few big moves.
Trendline	A straight line drawn on a chart connecting a series of highs or lows. It helps you see the trend and spot where price might bounce or break through.

U

Term	Definition
Uncovered (Naked) Option	An option sold without owning protection against it, like selling a call without owning the stock. Losses can be huge or even unlimited, so brokers restrict this and beginners should avoid it.
Underlying	The thing an option or future is based on. For an Apple call option, the underlying is Apple stock; for S&P 500 futures, it is the S&P 500 index.
Underperform	To do worse than a comparison point, usually the overall market. If your stock rose 2% while the S&P 500 rose 8%, your stock underperformed.
Underweight	An analyst's way of saying they expect a stock to do worse than average, so investors might own less of it than usual. The opposite opinion is called overweight.
Underwriter	A bank that helps a company sell new shares to the public, such as during an IPO (a company's first public stock sale). The underwriter organizes the sale and helps set the starting price.
Unlimited Risk	A position where there is no cap on how much money you can lose. Selling stock short or selling a naked call carries unlimited risk because prices can rise without any ceiling.
Unrealized Gain or Loss	The profit or loss on a position you still hold, measured at today's prices. It only becomes real (realized) when you sell and lock it in.
Upside	The potential for a price to rise, or the amount it might gain. If a stock at $40 could reasonably reach $50, traders say it has $10 of upside.
Uptick	A trade that happens at a price slightly higher than the trade just before it. A series of upticks shows buyers are actively pushing price up.
Uptrend	A pattern where prices keep making higher highs and higher lows over time. It is the chart's way of showing buyers are in control.

V

Term	Definition
Valuation	The process of estimating what a company or asset is actually worth. Investors compare that estimate to the current price to decide if something looks cheap or expensive.
Value Stock	A stock that looks cheap compared to the company's earnings, assets, or sales. Value investors buy these hoping the market eventually prices them fairly.
Vega	A measure of how much an option's price changes when expected volatility moves by one percentage point. If vega is 0.10, the option gains or loses about $10 per contract for each 1% change in implied volatility.
Vertical Spread	An options trade using two options of the same type and expiration but different strike prices, like buying a $50 call and selling a $55 call. It costs less than a single option and caps both your risk and your reward.
VIX (Volatility Index)	A number that measures how much movement traders expect in the S&P 500 over the next 30 days. It often spikes when fear rises, which is why it is nicknamed the "fear gauge."
Volatility	How much and how fast a price swings around. A stock that moves 5% a day is far more volatile than one that moves 0.5% a day.
Volatility Crush (IV Crush)	A sharp drop in an option's price right after a big expected event, like an earnings report, because the uncertainty is gone. It can hurt option buyers even when the stock moves their way.
Volume	How many shares or contracts changed hands during a period. A stock that trades 10 million shares a day has far more volume than one that trades 10 thousand.
Volume Profile	A chart tool that shows how much trading happened at each price level, not just over time. It highlights prices where buyers and sellers were most active.
VWAP (Volume-Weighted Average Price)	The average price of a stock for the day, weighted so trades with more volume count more. Big institutions compare their fills to VWAP, and many traders use it as a fair-price line on the chart.

W

Term	Definition
Wall Street	A street in New York City where the financial industry grew up, now used as a nickname for the entire US financial system: the exchanges, big banks, and funds.
Warrant	A long-term certificate, usually issued by a company, giving the holder the right to buy its stock at a set price before a future date. It works much like a long-dated call option.
Wash Sale	A tax rule: if you sell a stock for a loss and buy a substantially identical one within 30 days before or after that sale (a 61-day window total), the loss is disallowed for taxes for now. This is educational only, not tax advice — talk to a tax professional.
Watchlist	A personal list of stocks or contracts you are keeping an eye on but have not bought. Most traders track a small watchlist instead of the whole market.
Wedge	A chart pattern where price swings get narrower between two slanted lines, squeezing like a wedge. It often shows a move is running out of steam and may reverse or break out.
Weekly Options	Option contracts that expire in about a week, listed with expirations on multiple days each week for popular stocks and indexes. Their short life makes time decay very fast.
Weighting	How much influence each stock has inside an index or fund. In the S&P 500, bigger companies count more, so Apple moving 1% shifts the index far more than a small company moving 1%.
Whipsaw	When price suddenly reverses direction right after moving the other way, trapping traders who just entered. Choppy markets whipsaw traders with repeated small losses.
Working Order	An order you have placed that has not filled yet and is still active, like a limit order waiting for its price. It stays working until it fills, you cancel it, or it expires.
Writer (Option Writer)	The person who sells an option contract and collects the premium. The writer takes on the obligation: a call writer may have to sell shares at the strike price.

Y

Term	Definition
Year-over-Year (YoY)	Comparing a number to the same period one year earlier, like this quarter's sales versus the same quarter last year. It removes seasonal effects and shows true growth.
Year-to-Date (YTD)	A measurement from January 1 to today. If a stock is "up 12% YTD," it has gained 12% since the start of the year.
Yield	The income an investment pays you, shown as a percentage of its price. A stock priced at $100 that pays $3 a year in dividends has a dividend yield of 3%.
Yield Curve	A line showing interest rates for bonds of different lengths, from months to 30 years. Normally longer bonds pay more; when short-term rates rise above long-term ones, economists watch closely because it has often preceded recessions.

Z

Term	Definition
Zero DTE (0DTE)	Options that expire today, on the same day you trade them ("DTE" means days to expiration). They can move from cheap to worthless in minutes, so they are extremely risky and decay incredibly fast.
Zero-Sum Market	A market where one trader's gain is exactly another trader's loss, like futures and options. For every winner there is a loser on the other side of the trade, before fees.



PP-10

FINAL EXAM

Fifty questions across the whole Level 1 Academy. Closed book. 80% to pass.

Alpha Academy Practice Pack · Team Alpha Trading

Alpha Academy Final Exam

You made it to the end of Alpha Academy. This exam covers the whole Level 1 school — the market, stocks, charts, analysis, options, futures, risk, rules, and safety — in 50 multiple-choice questions.

How it works:

- **Closed book.** Put the modules away. This checks what is actually in your head.
- **50 questions**, each with four choices (A, B, C, D) and exactly one correct answer.
- **You need 40 out of 50 (80%) to pass.**
- **Retakes are allowed.** If you miss the mark, re-read the modules your wrong answers point to, then take it again. Passing on the second try after real review is worth more than guessing your way through on the first.
- There are **no answers in this document**. The answer key is a separate file, so this exam stays honest.

> **NOTE**
> This is an education check, not a license and not financial advice. Passing means you understand the material — real trading skill is proven in a paper account, one journaled trade at a time.

Part 1 — Foundations (Questions 1–8)

1. One share of stock is best described as:

A) A loan you made to a company B) A small ownership piece of a company C) A promise that the company will repay you with interest D) A ticket that guarantees the stock will rise

2. A company's market capitalization (market cap) is calculated as:

A) Share price × shares outstanding B) Share price + total company debt C) Yearly profit × 10 D) The cash in the company's bank account

3. The S&P 500 is:

A) A single stock you can buy directly B) A company that sells investments C) An index — a scoreboard that tracks 500 large US companies D) A savings bond issued by the government

4. On a stock quote, the **bid** price is:

A) The highest price a buyer is willing to pay right now B) The lowest price a seller will accept C) The price of the very last trade yesterday D) The fee your broker charges per trade

5. A **limit order** to buy a stock means:

A) Buy immediately, at whatever price the market gives you B) Buy only after the market closes C) Buy the maximum shares your account allows D) Buy at your set price or better — never worse than your limit

6. The main way an ETF (exchange-traded fund) differs from a mutual fund is:

A) ETFs never hold stocks B) An ETF trades all day like a stock, while a mutual fund prices once after the close C) Mutual funds are always free to own D) ETFs are only available to professionals

7. A **dividend** is:

A) A cash payment a company may choose to send its shareholders — it is never guaranteed B) A yearly payment every stock is required to make C) A fee the exchange charges for holding shares D) The tax you

owe when a trade wins

8. Regular US stock market hours are:

A) 8:00 AM to 8:00 PM Eastern Time B) 6:00 AM to noon Eastern Time C) 9:30 AM to 4:00 PM Eastern Time D) 24 hours a day, 7 days a week

Part 2 — Reading Charts & Analysis (Questions 9–16)

9. A green (up) candle on a chart means the price:

A) Will rise again tomorrow B) Had no sellers during that period C) Opened at the highest price of the day D) Closed higher than it opened

10. The bars along the bottom of a price chart — the **volume** bars — show:

A) How much money the company earned B) How many shares changed hands during that period C) How many employees the company has D) The size of the next dividend

11. **Support** is a price level where:

A) Price has repeatedly stopped falling and bounced back up B) The company releases its earnings report C) Every buyer is forced to sell D) The stock is guaranteed to reverse direction

12. A **moving average** is used to:

A) Predict tomorrow's exact closing price B) Replace the need for a stop loss C) Smooth out price movement so the trend is easier to see D) Guarantee a profit when price crosses it

13. The RSI (Relative Strength Index) reads 75. The textbook reading is:

A) The stock must fall today B) The stock is a sure buy C) The indicator is broken D) The stock is "overbought" by convention — stretched, but not guaranteed to reverse

14. **VWAP** is best described as:

A) The highest price traded this year B) The average price paid so far today, weighted by volume — the day's fair-price line C) A fee charged by market makers D) The opening price of the first candle only

15. A stock trades at $30 and earned $1.50 per share (EPS) over the last year. Its P/E ratio is:

A) 45 B) 31.5 C) 20 D) 0.05

16. The **VIX** is:

A) A stock inside the S&P 500 B) A bond issued by the US Treasury C) A "fear gauge" — an index built from options prices that shows how much volatility the market expects D) A cryptocurrency

Part 3 — Options (Questions 17–28)

17. A **call** option gives its buyer:

A) The right to buy 100 shares at the strike price B) The right to sell 100 shares at the strike price C) Immediate ownership of 100 shares D) A monthly dividend payment

18. An option is quoted with a premium of $2.50. The cost of one contract is:

A) $2.50 B) $25 C) $250 D) $2,500

19. The most you can lose on an option you **bought** is:

A) Unlimited — there is no cap B) The full strike price C) Twice the premium D) The premium you paid, and nothing more

20. A stock trades at $95. A call with a $100 strike price is:

A) In the money B) Out of the money C) At the money D) Already expired

21. A **covered call** means you:

A) Buy a call using borrowed money B) Sell a call with no shares and no cash set aside C) Own 100 shares of a stock and sell a call against those shares D) Buy two calls with different strike prices

22. You buy a call with a $50 strike for a $2.50 premium. Your breakeven price at expiration is:

A) $52.50 B) $50.00 C) $47.50 D) $55.00

23. You own a put with a $60 strike. At expiration, the stock finishes at $52. One contract is worth:

A) $200 B) $600 C) $60 D) $800

24. An option's premium is $3.20 and its intrinsic value is $2.00. Its extrinsic value is:

A) $5.20 per share B) $1.20 per share C) $3.20 per share D) $0 — options have no extrinsic value

25. A **protective put** is used to:

A) Guarantee a profit on shares you own B) Borrow shares so you can sell them C) Insure shares you own against a big drop, the way insurance protects a house D) Avoid paying taxes on a winning stock

26. A company's earnings report is good and the stock rises — but the call you bought still loses money. The most likely cause is:

A) IV crush — implied volatility collapsed once the event passed, draining the premium B) Your broker made an error C) Calls can never profit when news is good D) Theta only works against put buyers

27. A call has a **delta** of 0.60. The stock rises $2. The option's price rises by roughly:

A) $0.60 per share B) $2.00 per share C) $1.20 per share — about $120 per contract D) $120 per share

28. You buy a bull call spread: buy the $100 call, sell the $110 call, and pay a $1.80 debit. Your maximum profit at expiration is:

A) $180 B) Unlimited C) $1,000 D) $820

Part 4 — Futures & Other Markets (Questions 29–36)

29. A **futures contract** is:

A) A share of a mining company B) An agreement to buy or sell something at a set price on a future date C) A savings account held at an exchange D) A bet that never expires

30. In futures trading, **margin** is:

A) A good-faith deposit you post to hold the position — it is not a loan B) A loan from the broker that charges interest, exactly like stock margin C) A fee that the exchange keeps forever D) The profit target on the trade

31. You are long 1 MES (Micro E-mini S&P 500) contract and price rises 10 points. Your gain before costs is:

A) $10 B) $500 C) $50 D) $5,000

32. You are long 1 NQ (Nasdaq-100) contract and price rises 10 points. Your gain before costs is:

A) $20 B) $100 C) $1,000 D) $200

33. You are long 1 ES (E-mini S&P 500) contract and price falls 8 points. Your loss before costs is:

A) $80 B) $400 C) $200 D) $4,000

34. You are long 1 CL (crude oil) contract and price rises 2 points. Your gain before costs is:

A) $2,000 B) $20 C) $200 D) $100

35. A headline says "bond yields rose today." That means bond prices:

A) Rose as well B) Did not change C) Fell — prices and yields move in opposite directions, like a seesaw D) Were not traded that day

36. The EUR/USD forex pair moves from 1.1000 to 1.1050. That is a move of:

A) 5 pips B) 500 pips C) Half a pip D) 50 pips

Part 5 — Risk & Psychology (Questions 37–44)

37. A **stop loss** is best described as:

A) A pre-set exit that closes your trade when price reaches your planned loss level B) A way to guarantee you can never lose money C) An order type only professionals are allowed to use D) A tip you get from an experienced trader

38. **Revenge trading** means:

A) Trading against a rival trader on purpose B) Selling a stock because you dislike the company C) Trading bigger and angrier right after a loss, trying to win the money back immediately D) Reporting a scam to the regulators

39. You follow the 1% rule with a $10,000 account. The most you should risk on a single trade is:

A) $10 B) $100 C) $1,000 D) Whatever feels right that day

40. Your total risk on a trade is $100. You buy a stock at $40 and place your stop at $38. How many shares should you buy?

A) 25 shares B) 40 shares C) 100 shares D) 50 shares

41. You risked $100 on a trade and made $250. Measured in R-multiples, your result is:

A) +2.5R B) +0.4R C) +1.5R D) +25R

42. Your account drops 50%. What percentage gain do you now need just to get back to even?

A) 50% B) 25% C) 100% D) 75%

43. **FOMO** in trading means:

A) A type of futures contract B) The fear of missing out — jumping into a move late because everyone else seems to be making money C) A formula for position sizing D) The sound of the exchange's closing bell

44. By 10:15 AM you have already hit your daily loss limit. Then you spot a setup that looks perfect. Your written plan says:

A) Take it — a perfect setup always beats the limit B) Take it at double size to recover the day C) Take it at half size, just this once D) Stop trading for the day — the limit exists to protect you from trading while emotional

Part 6 — Rules & Safety (Questions 45–50)

45. The biggest practical difference between a cash account and a margin account is:

A) A cash account trades only your own settled money, while a margin account lets you borrow from the broker B) Margin accounts charge no fees of any kind C) Cash accounts are not allowed to buy stocks D) There is no real difference

46. Stock settlement of **T+1** means:

A) Your trade takes one hour to place B) You must hold every stock for at least one day C) The money and shares officially settle one business day after the trade D) Your taxes are due one day after the trade

47. A **margin call** is:

A) A friendly phone call from your broker with a stock tip B) The broker's demand that you restore your account equity — if you do not act, the broker may sell your positions without your permission C) A call option that was bought on margin D) A call that must happen before every trade

48. The CLASSIC pattern day trader (PDT) rule said that a pattern day trader in a margin account needed:

A) At least $2,000 in the account B) A college degree in finance C) No day trades at all, ever D) At least $25,000 in account equity — and because regulators have been replacing this rule with intraday-margin standards, you should check your own broker's current rule

49. You sell a stock at a $400 loss on June 10, then buy the same stock again on June 25. Under the wash sale rule:

A) The $400 loss is disallowed for now, because you rebought a substantially identical security within 30 days after the sale B) The $400 loss counts in full, immediately C) The exchange fines you $400 D) Nothing changes — there is no such rule

50. In a group chat, a stranger urges everyone to buy a tiny, unknown stock "before it doubles this week," while quietly planning to sell his own shares into the rush of buying. This scam is called:

A) Dollar-cost averaging B) A covered call C) A pump-and-dump D) Hedging

> **RULE**
> Grade honestly. An 80% you earned tells you the truth about what you know — and the truth is the only thing that keeps an account alive.



PP-11

ANSWER KEY

Every answer explained in one line — and where to re-study what you missed.

Alpha Academy Practice Pack · Team Alpha Trading

Final Exam — Answer Key

This is the grading key for the **Alpha Academy Final Exam**. Keep it separate from the exam itself — a student should never see this file before (or while) taking the test.

Scoring: 40 or more correct out of 50 = **pass (80%)**. Below 40, the review map at the bottom of this key shows exactly which modules to re-read before a retake.

The Answers

- **1. B — A small ownership piece of a company.** A share is a slice of ownership. Unlike a loan, the company owes you nothing back.
- **2. A — Share price × shares outstanding.** That one multiplication is the company's total market value.
- **3. C — An index: a scoreboard tracking 500 large US companies.** You cannot buy an index itself; you trade ETFs, futures, or options based on it.
- **4. A — The highest price a buyer is willing to pay right now.** The ask is the sellers' side; the gap between bid and ask is the spread.
- **5. D — Buy at your set price or better, never worse than your limit.** A market order takes whatever price is available; a limit order sets your ceiling.
- **6. B — An ETF trades all day like a stock; a mutual fund prices once after the close.** Same basket idea, different trading mechanics.
- **7. A — A cash payment a company may choose to send shareholders; never guaranteed.** A company can cut or skip its dividend at any time.
- **8. C — 9:30 AM to 4:00 PM Eastern Time.** That is the regular session; pre-market and after-hours exist but are thinner and wilder.
- **9. D — Closed higher than it opened.** Green says nothing about tomorrow; it only reports what that candle did.
- **10. B — How many shares changed hands during that period.** Volume measures participation — how real the crowd behind a move is.
- **11. A — Price has repeatedly stopped falling and bounced back up.** Support is a floor price has tested; it is a tendency, never a guarantee.
- **12. C — It smooths price movement so the trend is easier to see.** An average describes the trend; it does not predict prices or protect you.
- **13. D — "Overbought" by convention: stretched, not guaranteed to reverse.** Above 70 is a custom, not a law — strong trends can stay stretched for days.
- **14. B — The average price paid so far today, weighted by volume.** VWAP is the day's fair-price line: above it buyers are in control, below it sellers are.
- **15. C — 20.** P/E = price ÷ EPS = $30 ÷ $1.50 = 20. You are paying $20 for each $1 of yearly earnings.
- **16. C — A fear gauge built from options prices, showing expected volatility.** The VIX rises when traders pay up for protection.
- **17. A — The right to buy 100 shares at the strike price.** A put is the mirror image: the right to sell at the strike.
- **18. C — $250.** Premium is quoted per share and one contract covers 100 shares: $2.50 × 100 = $250.

- **19. D — The premium you paid, and nothing more.** A buyer's risk is capped at the premium; a seller's risk is the large, open-ended side.
- **20. B — Out of the money.** The stock ($95) sits below the call's strike ($100), so exercising today would buy above the market price.
- **21. C — Own 100 shares and sell a call against those shares.** The shares "cover" the call — that is what makes it covered.
- **22. A — $52.50.** Call breakeven = strike + premium = $50 + $2.50 = $52.50.
- **23. D — $800.** At expiration the put is worth strike − stock price = $60 − $52 = $8 per share × 100 shares = $800.
- **24. B — $1.20 per share.** Extrinsic value = premium − intrinsic value = $3.20 − $2.00 = $1.20 — the part that melts away by expiration.
- **25. C — Insurance for shares you own, the way insurance protects a house.** It caps your downside for a premium; it does not promise a profit.
- **26. A — IV crush.** Event premiums carry a fear surcharge; once the news prints, implied volatility collapses and can erase a correct call's gains.
- **27. C — $1.20 per share, about $120 per contract.** Delta math: 0.60 × $2 stock move = $1.20 per share × 100 shares = $120.
- **28. D — $820.** Max profit on a debit spread = width − debit = ($110 − $100) − $1.80 = $8.20 per share × 100 = $820.
- **29. B — An agreement to buy or sell something at a set price on a future date.** That locked-in future price is the entire idea — it began with farmers and bakers.
- **30. A — A good-faith deposit, not a loan.** Futures margin posts your own money as a performance deposit; nobody lends you anything and no interest is charged on it.
- **31. C — $50.** MES is worth $5 per point: 10 points × $5 = $50.
- **32. D — $200.** NQ is worth $20 per point: 10 points × $20 = $200.
- **33. B — $400.** ES is worth $50 per point: 8 points × $50 = $400 — leverage magnifies losses exactly like gains.
- **34. A — $2,000.** CL is worth $1,000 per point: 2 points × $1,000 = $2,000. One contract controls 1,000 barrels.
- **35. C — Bond prices fell.** Prices and yields move in opposite directions, like a seesaw: "yields rose" always means prices dropped.
- **36. D — 50 pips.** A pip is 0.0001 for most pairs; 1.1050 − 1.1000 = 0.0050 = 50 pips.
- **37. A — A pre-set exit that closes your trade at your planned loss level.** A stop limits damage; it cannot guarantee a fill price in a fast market or a gap.
- **38. C — Trading bigger and angrier right after a loss, trying to win it back immediately.** Revenge trading turns one planned loss into an emotional spiral.
- **39. B — $100.** The 1% rule: 1% of $10,000 = $100 maximum risk on any single trade.
- **40. D — 50 shares.** Risk per share = $40 − $38 = $2; shares = $100 ÷ $2 = 50.
- **41. A — +2.5R.** R is your planned risk ($100); $250 ÷ $100 = 2.5, so the trade earned two and a half times what you risked.

- **42. C — 100%.** After losing half, only half remains, so it must double — losses dig holes that get deeper faster than they look.
- **43. B — The fear of missing out: jumping into a move late because everyone else seems to be making money.** FOMO buys other people's exits at the worst prices.
- **44. D — Stop trading for the day.** The daily loss limit exists to protect you from emotional trading; no single setup outranks a rule you wrote while calm.
- **45. A — A cash account trades only your own settled money; a margin account lets you borrow from the broker.** Borrowed money means interest — and the broker can force sales if your equity falls too low.
- **46. C — Money and shares officially settle one business day after the trade.** T+1 has been the US standard since May 2024.
- **47. B — The broker's demand to restore your equity, with the power to sell your positions if you do not act.** A margin call is not a suggestion and not a stock tip.
- **48. D — At least $25,000 in account equity under the classic rule — and you should check your broker's current rule.** Regulators have been replacing the classic PDT rule with intraday-margin standards, and brokers are transitioning.
- **49. A — The $400 loss is disallowed for now, because you rebought within 30 days after the sale.** June 25 is inside the 61-day wash sale window (30 days before and after the June 10 sale).
- **50. C — A pump-and-dump.** Hype inflates the price, the promoter dumps his shares into the buying, and the crowd is left holding the fall. Anyone guaranteeing profits is lying.

How to Review What You Missed

Do not just re-take the exam. Find the part where your misses cluster, re-read those modules, redo each module's own **Check Yourself** questions, and only then take the exam again.

- **Missed Questions 1–8 (Foundations)?** Re-read AA-02 *What Is the Stock Market*, AA-03 *Stocks A–Z*, AA-04 *How Trading Actually Works*, and AA-16 *ETFs, Index Funds & Mutual Funds*.
- **Missed Questions 9–16 (Charts & Analysis)?** Re-read AA-05 *Reading Charts & Candlesticks*, AA-07 *Technical Analysis A–Z*, AA-08 *Chart Patterns & Price Action*, AA-09 *Fundamental Analysis A–Z*, and AA-10 *What Moves Markets*.
- **Missed Questions 17–28 (Options)?** Re-read AA-11 *Options Part 1: The Basics* and AA-12 *Options Part 2: Pricing & the Greeks* for the math, then AA-13 *Options Part 3: Strategies* and AA-14 *Options Part 4: Risk & 0DTE*. Keep AA-25 *Quick Reference Cheat Sheets* open beside you while you redo the calculations.
- **Missed Questions 29–36 (Futures & Other Markets)?** Re-read AA-15 *Futures A–Z* (know every contract's point value cold), AA-18 *Bonds, Rates & Commodities* for the price/yield seesaw, and AA-17 *Forex & Crypto Basics* for pips.
- **Missed Questions 37–44 (Risk & Psychology)?** Re-read AA-19 *Risk Management A–Z* and AA-20 *Trading Psychology & Discipline*, then AA-21 *Building Your Trading Plan & Journal* — these answers are the rules that keep an account alive.
- **Missed Questions 45–50 (Rules & Safety)?** Re-read AA-22 *Accounts, Margin, Rules & Taxes* and AA-23 *Safety: Scams & Protecting Your Money*. These six questions protect real money — aim to get all of them right on the retake.

> **TIP**
> Score yourself by part, not just in total. A pass with all six safety questions missed is not really a pass — review AA-22 and AA-23 before you trade a single real dollar.



AA2-00

LEVEL 2
INDEX

The map of Alpha Academy Level 2 — the advanced course, module by module.

Alpha Academy Level 2 · Team Alpha Trading

Alpha Academy Level 2 — Index & Curriculum Map

Welcome to **Level 2** of Alpha Academy — the advanced course for students who finished the Level 1 Academy and can already define every basic term, read a chart, and size a position. Level 1 taught you what everything **is**. Level 2 teaches you how the market actually **works underneath**: who is on the other side of your trade, why price pins at some levels and explodes through others, how professionals measure risk across a whole account, and how to prove a strategy works before risking a dollar on it.

Level 2 pairs with two companions: the **Alpha Academy Practice Pack** (workbooks, templates, the 30-Trade Paper Challenge, and the Final Exam) and, when you are ready for Team Alpha's own method, the **Team Alpha Strat Library**.

> **NOTE**
> Everything in Alpha Academy is education, not financial advice. Level 2 tools are more powerful and easier to misuse than Level 1 tools. Paper trade every new concept for at least a month before it touches real money.

The Level 2 Curriculum

Code	Document	What You Will Learn
AA2-00	Level 2 Index & Curriculum Map	This map
AA2-01	Welcome to Level 2	From student to trader — what changes now
AA2-02	Level 2 Quotes & the Tape	Depth of book, prints, and what they really show
AA2-03	Order Flow Basics	Aggressive buyers/sellers, delta, absorption
AA2-04	Market Internals	Breadth, TICK, put/call — the market's dashboard
AA2-05	Volatility & the VIX A–Z	The fear gauge, term structure, and vol regimes
AA2-06	Trading Earnings & IV Crush	Expected moves and the post-earnings vol collapse
AA2-07	Calendar & Diagonal Spreads	Trading time decay itself
AA2-08	Butterflies & Advanced Structures	Precision pin bets — and ratio-spread danger
AA2-09	Portfolio Greeks & Hedging	Your whole account's exposure, and how to insure it
AA2-10	The DOM & Footprint Charts	Inside the futures order book
AA2-11	Trading the Open	A sane framework for the wildest 30 minutes
AA2-12	Swing Trading A–Z	Holding for days — entries, sizing, routine
AA2-13	Building & Backtesting a System	Expectancy, overfitting, and proving an edge
AA2-14	Gamma & Dealer Positioning	The hidden hand on price — GEX in plain English
AA2-15	Trading With GEX Levels	The practical framework: flip, walls, environment
AA2-16	Long-Term Investing & Portfolio Building	The other half of wealth
AA2-17	Retirement Accounts Deep Dive	IRA, Roth & 401(k) — and the match rule

Code	Document	What You Will Learn
AA2-18	Trader Taxes Advanced	Section 1256, the 475 election, entities
AA2-19	Case Studies: Crashes & Manias	2008, 2020, and GameStop — what history teaches
AA2-20	Alpha Trading Glossary — Expanded Edition	850+ terms, fully searchable

How to Take Level 2

- **In order, the first time.** The sections build: structure and flow first, then volatility and advanced options, then futures depth, then systems — and the Gamma section (AA2-14/15) lands hardest once you understand hedging and the Greeks.
- **Pair every section with the Practice Pack.** The Workbooks drill Level 1; the Final Exam certifies it. Level 2 study habit: read one module, then paper trade ONLY that module's concept for two weeks while journaling it.
- **Finish with the Case Studies.** AA2-19 is the perspective check — every tool in this course existed in 2008, 2020, and 2021, and none of them replaced risk management.
- **Then the real graduation:** the 30-Trade Paper Challenge from the Practice Pack, run on ONE setup, graded on rule-following. Pass that, and you are ready to study the Strat Library as a trader, not a tourist.

> **RULE**
> Level 2 knowledge does not make losses smaller — position size does that. Every advanced tool in this course sits on top of the Level 1 risk rules, never instead of them.



AA2-01

WELCOME TO LEVEL 2

From student to trader — what changes now, and how to study the advanced course.

Alpha Academy Level 2 · Team Alpha Trading

Welcome to Level 2: From Student to Trader

You finished Level 1. That is no small thing. You started from zero — never having heard of a bid, an ask, or a strike price — and you worked through the whole map: stocks, options, futures, charts, risk, rules, and safety. You can now pick up any module in the first library and explain, in your own words, what the thing is and how it works.

Level 2 starts where Level 1 stopped. Level 1 answered the question "What is it?" Level 2 answers a harder one: "How do traders actually use it — and how do I think while I use it?" This module is your orientation. It explains who this level is for, what changes now, what to honestly expect, and how to study so the new material turns into skill instead of trivia.

> **NOTE**
> Everything in Level 2 is still education, not financial advice. The tools ahead are more powerful than the ones in Level 1, and powerful tools cut both ways. Nothing in this level is a promise that you will make money.

Who Level 2 Is For

Level 2 is for the student who finished Level 1 — all of it, including the risk and rules modules (AA-19 through AA-23) — and can pass a simple test: you can define the everyday words of trading without looking them up. Strike price. Premium. Margin. Bid and ask. Support and resistance. Position size. If those words are solid, you are ready.

If some of them are still fuzzy, that is not a failure — it is information. Go back and re-read the module that covers the fuzzy word before you start Level 2. Level 2 builds on Level 1 the way a second floor builds on a first. A gap downstairs becomes a crack upstairs, and an hour of review now saves you ten hours of confusion later.

Level 2 is also not for skipping ahead. If you jumped here because the topics sound exciting — order flow, volatility, gamma — slow down. Every module ahead assumes you already manage risk the Level 1 way: small size, defined risk, a written plan, and a journal. Those habits are the entry ticket.

What Changes in Level 2

Three things change as you move from student to trader.

First: from definitions to probability. In Level 1, things were either true or false. One contract controls 100 shares — that is a fact. In Level 2, almost nothing is a fact. Everything is an odds statement. A **probability** is how often something happens out of many tries, like winning 4 trades out of 10. Traders combine probability with payoffs into **expectancy** — the average amount a strategy makes or loses per trade over many trades. Here is the math, step by step. A setup wins 40% of the time. Its average win is $300. Its average loss is $100. Expectancy = (0.40 × $300) − (0.60 × $100) = $120 − $60 = **+$60 per trade**. That setup loses more often than it wins — and still makes money over time. Level 2 trains you to think this way about everything.

Second: from single tools to structure. Level 1 taught tools one at a time: a candle, an indicator, an option. Level 2 teaches how the pieces connect — how orders actually stack up inside the market, how volatility changes the price of every option, how big players hedging their positions can push prices around. **Market**

structure means the way the market is actually built and how money flows through it. Once you see the structure, the individual tools start working together instead of sitting in separate boxes.

Third: from knowledge to process. A **process** is the set of steps you follow the same way every time: prepare, plan the trade, size it, take it, record it, review it. Students collect knowledge. Traders run a process. Two people can know the exact same material and get opposite results — and the difference is almost never knowledge. It is process, repeated calmly, especially on the days it hurts.

The Honest Part: Knowledge Is Not an Edge

Here is a truth this school will never hide from you: **Level 2 knowledge, by itself, does not make anyone money.** Most people who trade still lose money, including plenty who know a great deal. Knowing what order flow is does not pay you. Knowing how to price a calendar spread does not pay you. You get paid — when you get paid — for sound decisions repeated over hundreds of trades, with risk kept small enough that no bad week can end you.

More knowledge can even make results worse, for a predictable reason: confidence grows faster than skill. Watch the math on a classic Level 2 trap. A trader learns defined-risk spreads and thinks, "My risk is capped, so I can size up." He risks 10% of his $10,000 account per trade. Then he loses five trades in a row — completely normal, even for a good strategy. Each loss multiplies his account by 0.9: $10,000 → $9,000 → $8,100 → $7,290 → $6,561 → $5,905. Five "safe, capped" losses just cost him about **41% of his account**, and now he needs a gain of about 69% just to get back to even. The tool was fine. The discipline was missing. Level 1's risk rules are not training wheels you remove at Level 2 — they are the frame everything here hangs on.

So set your expectations plainly. Level 2 will make you more capable. It will not make trading easy, safe, or certain. Expect months of practice, expect losing streaks, and expect your journal — not your feelings — to tell you whether you are improving.

The Map of Level 2

Here are the sections ahead, in the order we recommend studying them.

- **Market Structure & Order Flow.** Level 2 quotes, the tape, the depth-of-market ladder, footprint charts, and market internals like the TICK index and breadth — watching real buying and selling instead of guessing from candles alone.
- **Volatility in Depth.** The VIX, implied volatility at an advanced level, and how traders approach events like earnings reports, where volatility itself becomes the trade.
- **Advanced Options.** Calendar and diagonal spreads, butterflies, managing a whole portfolio's Greeks at once, and hedging an entire account instead of a single trade.
- **Futures at Depth.** Trading with the DOM, reading order flow in futures, and handling the open — the most active minutes of the trading day.
- **Swing Trading & System Design.** Building a complete strategy with written rules, then **backtesting** it — testing those rules honestly against old market data before real money depends on them.
- **Gamma & Dealer Positioning.** How the firms that sell options hedge their risk, and how that hedging can pin prices to a level or accelerate a move — the force behind the tools Team Alpha uses every day.
- **Building Wealth.** The slow side, done right: portfolio construction, retirement accounts, and long-term investing without the myths.

- **The Business of Trading.** Taxes for active traders — including the special 60/40 tax treatment that Section 1256 gives futures and index options — plus records, and treating trading like the business it is.

How to Study Level 2

Study here works differently than in Level 1. Follow this loop for every module:

1. **Read it once, fully.** Do the Check Yourself questions. Do not trade anything yet.
2. **Watch it live.** Open your charts and quote screens during market hours and simply observe the tool or concept for several sessions. Watching without trading builds patience and shows you what the module described.
3. **Paper trade it for a full month. Paper trading** — practicing with fake money in a simulated account, the way AA-01 and AA-21 introduced it — is mandatory at this level, not optional. Give every new tool at least one full month of paper trades, or at least 20 practice trades, whichever takes longer. Journal every single one.
4. **Review the journal honestly.** What was your win rate? Your average win and average loss? Your expectancy? If the paper results are poor, the tool is not ready — or you are not ready with it. Both are fine to discover on fake money.
5. **Start microscopic if you go live.** Smallest real size, same rules. The moment real-money trading breaks your rules, you go back to step 3.

> **TIP**
> Keep a separate journal section for each new tool. Mixing a brand-new strategy's results into your main journal hides whether the tool is working or whether you are.

What Getting Better Looks Like

Progress at this level rarely feels like winning more. It feels quieter. Your position sizes stop swinging with your mood. You pass on trades that almost fit your rules. Your losing days get smaller and more boring. Your journal gets more honest. If you want one sentence to judge yourself by, use this one: a Level 2 trader is not someone who knows more — it is someone whose **worst** day is under control.

Common Mistakes at This Level

- **Collecting tools instead of mastering one.** Five half-learned strategies lose to one fully learned strategy, every time.
- **Skipping paper trading because Level 1 felt easy.** Level 1 tested memory. Level 2 tests judgment under pressure — a different sport.
- **Sizing up because the risk is "defined."** Defined risk times too-big size is just a slower way to blow up, as the 41% example above shows.
- **Treating probability as certainty.** A setup that wins 70% of the time still loses 3 times out of 10 — sometimes three in a row. That is not the setup failing. That is math.
- **Letting the journal slide.** At Level 1 the journal was homework. At Level 2 it is your only honest coach.
- **Measuring yourself against strangers online.** You see their wins. You never see their full account. Compare yourself to your own journal from last month.

Chapter Summary

- Level 2 is for students who finished Level 1 and can define its core words cold — fuzzy basics mean review first.
- The focus shifts from "what is it" to "how pros use it": probability, structure, and process.
- Expectancy — win rate combined with average win and average loss — is the Level 2 way to judge any strategy.
- Knowledge alone is not an edge. Level 2 tools without Level 1 risk discipline still lose money, sometimes faster.
- The Level 2 tour covers order flow, volatility, advanced options, futures at depth, system design, gamma and dealer positioning, wealth building, and trading taxes.
- Every new tool gets the same study loop: read, watch live, paper trade for a month, review, then start microscopic.
- Progress looks boring: controlled worst days, steady size, honest journals.

Check Yourself

1. Who is Level 2 designed for, and what should you do if Level 1 words like "strike price" and "margin" still feel fuzzy?
2. A setup wins 40% of the time with an average win of $300 and an average loss of $100. What is its expectancy per trade?
3. A trader risks 10% of a $10,000 account per trade and loses five trades in a row. Roughly how much money is left, and what actually went wrong?
4. What are the three shifts that define Level 2 — from what, to what?
5. Before a new Level 2 tool touches real money, what must you do, and for how long?

Answers:

1. Students who finished all of Level 1. If the basics are fuzzy, go back and re-read the Level 1 modules that cover those words before starting.
2. (0.40 × $300) − (0.60 × $100) = $120 − $60 = **+$60 per trade**.
3. About $5,905 — roughly 41% of the account is gone. The tool may have been fine; the position size ignored Level 1 risk discipline.
4. Definitions to probability, single tools to structure, and knowledge to process.
5. Paper trade it — at least one full month or 20 practice trades, journaling every one — and review the results honestly before considering the smallest real size.

> **RULE**
> In Level 2 you do not get paid for what you know — you get paid for what you repeat correctly under pressure. Every new tool earns a month of paper trading before it touches one real dollar.



AA2-02

LEVEL 2 & THE TAPE

Depth of book and time & sales — what they really show, and what they never can.

Alpha Academy Level 2 · Team Alpha Trading

Level 2 Quotes & the Tape: Watching the Real Battle

In Level 1 you met the **bid** and the **ask**: the highest price a buyer is offering right now, and the lowest price a seller is asking, with the **spread** sitting between them. That view is called the **top of book** — the single best buy price and the single best sell price. It is like watching a stadium through a keyhole and seeing only the front row.

Level 2 quotes show you the whole stadium. Level 2 is a live feed of the **book** — the full list of buy and sell orders waiting at every price level, together with the number of shares at each one. Instead of one bid, you see the bids at $50.00, $49.99, $49.98, and on down, each with its size. Instead of one ask, you see the whole staircase of sellers above the price. Traders call this **market depth**: how much buying and selling is stacked behind the front row. In this module you will learn to read that book, and to read the **tape** — the live record of trades actually happening — and, just as important, you will learn exactly what these tools cannot tell you.

> **NOTE**
> Learn this honesty rule before anything else in this module: Level 2, the DOM, and the tape show you **orders and prints — not intent, and not the future.** A big order is not a promise. A busy tape is not a prediction. No feed in existence shows what price will do next. Any tool or teacher who claims otherwise is selling you something.

The Ladder: Reading the Book in Words

On most platforms the book is drawn as a ladder, often called the **DOM** (short for depth of market) — a vertical list of prices with buy sizes on one side and sell sizes on the other. Here is a small one for a stock trading around $50:

Price	Shares wanting to buy (bid)	Shares wanting to sell (ask)
$50.05	—	800
$50.04	—	1,200
$50.03	—	300
$50.02	—	500
$50.00	2,000	—
$49.99	600	—
$49.98	12,000	—
$49.97	900	—

Read it like this. The best ask is $50.02, with 500 shares for sale. The best bid is $50.00, with 2,000 shares wanted. The spread is $0.02. Below the bid, buyers are lined up at $49.99 (600 shares) and at $49.98 — where something stands out: **12,000 shares**. A cluster of size like that is often called a **wall** — a level where a lot of buying (or selling, on the ask side) is waiting. Hold that word loosely. By the end of this module you will know exactly how much a wall is worth, and it is less than beginners think.

Two more things to notice. First, these numbers count only **displayed** orders — orders their owners allow the market to see. Some size is hidden, as you will see shortly. Second, the book changes constantly — many times per second in active names. The ladder is a photograph of a river: accurate for the instant it shows, already different a blink later.

Who Posts All Those Orders?

Most of the quotes filling the ladder come from three kinds of players.

Market makers are firms whose business is standing in the middle all day. They post prices to buy and prices to sell, in size, whether or not they have any opinion about the stock — and they earn the spread. The math of their day is humble: buy at the $50.00 bid, sell at the $50.02 ask, keep $0.02 a share. On 10,000 shares, that is $200 — pennies per share, but real money at their scale. Because they carry risk every second, market makers update their quotes constantly, pulling and replacing prices thousands of times a day as conditions change. That flickering is normal plumbing, not a conspiracy.

ECNs — **electronic communication networks** — are the computer systems where orders meet and match. In plain words: electronic marketplaces. When your broker routes your limit order, it lands on an exchange's or an ECN's book and waits in line like everyone else's. Much of what fills the ladder is simply ordinary traders' and firms' limit orders resting on these systems.

Everyone else — funds, trading algorithms, and traders like you — adds orders too, mostly as limit orders that join the book at a chosen price. (As AA-04 covered, a **limit order** is an order to buy or sell only at your price or better.) When someone instead sends a **market order** — buy or sell right now, at whatever the book offers — they consume the ladder: the best price first, then the next, then the next. That difference matters enormously in thin markets, as the worked example below will show you in dollars.

The Tape: Time & Sales

The book shows orders *waiting*. The **tape** — formally called **time and sales** — shows trades *done*: a scrolling list in which every completed trade is recorded with its time, its price, and its number of shares. Each recorded trade is called a **print**.

A few seconds of tape might look like this:

Time	Price	Shares
10:15:03	$50.02	500
10:15:04	$50.02	100
10:15:05	$50.01	300
10:15:06	$50.00	2,000
10:15:07	$50.02	150

Platforms color each print to show where it traded relative to the spread: a print at or above the ask is usually shown **green**, because an eager buyer paid up to get filled; a print at or below the bid is shown **red**, because an eager seller hit the bid to get out. Colors are a convention — they can differ between platforms — and they describe *where the trade happened*, never whether it was smart or dumb. A green print is not good news. A red print is not bad news. It is simply a receipt.

What the tape adds, and the book cannot, is **evidence of action**. The book is people saying what they *would* do. The tape is what they *did*. Watching the tape, you can feel pace: long quiet stretches of 100-share prints, then suddenly the prints come fast and large — 2,000 here, 5,000 there — as somebody stops waiting politely and starts taking prices. Traders call that urgency. It is real information about the present moment. It is not information about the next one.

What Level 2 Can Actually Show You

Used honestly, these tools earn their keep in three ways.

Liquidity — the big one. Liquidity means how easily you can trade a name without moving the price against yourself. A thick book — thousands of shares at every penny — means your orders fill near the prices you see. A thin book — a few hundred shares scattered across wide gaps — means your own order becomes the event. For a trader at your level, this check alone justifies learning Level 2: it keeps you out of names where the *trading itself* is the biggest risk.

Possible areas of support and resistance. In Level 1 you drew support and resistance as lines where price had turned before. Level 2 lets you check whether anybody is actually standing there now. A big bid cluster resting under the price is *consistent with* support. Consistent with — not proof of. The next section explains why.

Absorption. Sometimes heavy selling slams into one price and the price simply refuses to fall. It looks like this: over ten minutes, sellers hit the $30.00 bid again and again — 60,000 shares trade at $30.00 — yet the price never ticks down to $29.99, because every time the displayed 500-share bid gets sold out, it reappears. A buyer is **absorbing** the selling: standing at that price, taking the other side of trade after trade. A small displayed size that keeps refilling usually means an **iceberg order** — an order that shows only a slice of its true size, like the tip of an iceberg, refilling from the hidden bulk beneath. Absorption tells you someone with size is defending a price *right now*. It does not tell you they will still defend it in ten minutes, or why they are there.

What Level 2 Cannot Show You

This is the most important section in the module.

It cannot show intent. You see orders, never reasons. That 12,000-share bid at $49.98 might be a fund quietly building a position, a market maker simply doing its job, an algorithm balancing a hedge — or bait. The feed does not say, and it never will.

Orders can vanish. A displayed order is an offer, and offers can be withdrawn in a blink — market makers reprice, algorithms pull their quotes when volatility spikes, ordinary traders change their minds. This is not rare or shady; it is constant. The practical translation: **a wall is not a floor.** If you buy "because there's a huge bid under me," you may find — at the exact moment price reaches it — that the bid is gone and the floor was painted on.

Spoofing is real. Spoofing means posting orders you never intend to trade — a fake wall of buying to make demand look strong, for example — then canceling them the moment price approaches. It is illegal. It also still happens. And from your screen, a fake wall and a real wall look identical; you cannot tell them apart in the moment. Anyone who builds a strategy on "the wall will hold" is building on something that may not exist.

Some size never shows at all. Between iceberg orders and **dark pools** — private trading venues where institutions trade large blocks away from the public book, with the prints appearing on the tape only after the trade is done — a large share of real activity is partly or fully hidden from your ladder. The book is always a partial view.

Put it all together, and the honesty rule from the top of this module is just common sense: orders and prints — not intent, and not the future.

How a Beginner Should Actually Use It

Start with the job that pays immediately: **the liquidity check, before every trade.** Look at the spread and the depth near the price. Tight spread, thousands of shares per level — trading there is cheap and fair. Wide spread, a few hundred shares per level — you will pay for the privilege of trading, coming and going. Most traders at your stage should simply not trade thin names at all.

Here is why, in dollars. A quiet stock's ask ladder looks like this: 100 shares at $20.10, 100 at $20.25, then nothing until 300 at $20.60. You send a market order to buy 500 shares, expecting to pay about $20.10. Instead, your order walks the book: 100 × $20.10 = $2,010; 100 × $20.25 = $2,025; 300 × $20.60 = $6,180. Total paid: $10,215 — an average price of **$20.43 per share**, versus the $10,050 you expected. That is **$165 gone instantly**, before the stock has moved at all, on one small order in a thin name. A limit order at a price you choose, plus patience, would have prevented most of it. The book warned you in advance. That protective check is Level 2's most reliable function.

Second job: **confirm, don't predict.** If your Level 1 plan says "buy at support near $30," a quick look at real bids stacked near $30 confirms the area matters to other traders today. If the book there is nearly empty, that is information too. Either way, the plan came first — the book only grades the location.

Third job: **read pace, not prophecy.** Around your entry, a tape that suddenly accelerates tells you the moment is active and **slippage** — the gap between the price you expect and the price you actually get — is more likely. That is a reason to use limit orders and keep your size honest. It does not tell you which way the burst will go.

> **TIP**
> If your broker's basic screen does not include Level 2 data, check what your broker offers — many include it or sell it as an add-on, and data packages differ. And confirm you are looking at real-time data, not delayed quotes, before drawing any conclusion from the ladder. A 15-minute-old book is worse than no book at all.

Common Mistakes at This Level

- **Treating a wall as a guarantee.** "There's a 12,000-share bid — it can't go down." It can, the moment that bid cancels or gets filled. Walls are weather, not walls.
- **Chasing the spoof.** Buying because a huge bid appears, then watching it vanish as price arrives. If a wall seems to be performing for an audience, assume you are the audience.
- **Reading big prints as inside knowledge.** A 10,000-share print might be a fund rebalancing, a hedge, or two algorithms crossing. Size is not a story.
- **Tape hypnosis.** Staring at flickering prints until every wiggle feels like a signal, then overtrading. The tape rewards a glance at the right moment, not a trance.

- **Trading thin names because the chart looked clean.** A beautiful pattern in a stock with 300 shares per level is a trap with good artwork.
- **Forgetting your own order is visible too.** In a thin name, your order can be the biggest thing on the ladder — and every other trader can see it.

Chapter Summary

- Level 2 quotes show the whole book — waiting buy and sell orders at every price level, with sizes — where a Level 1 quote shows only the best bid and ask.
- The DOM ladder lets you read the spread, the depth, and size clusters ("walls") at a glance, but it is a snapshot of a fast-moving river.
- Most quotes come from market makers earning the spread, orders resting on electronic networks (ECNs), and other traders' limit orders.
- The tape (time and sales) records every completed trade — each one a print — and reveals pace and urgency the book cannot.
- Level 2's most reliable uses are the liquidity check, confirming planned levels, and reading the moment's pace.
- Absorption — heavy selling refused by a refilling buyer, often an iceberg order — is real information about the present, not a prediction.
- Level 2 cannot show intent. Hidden size exists (icebergs, dark pools), spoofing is real and illegal, and any order can vanish instantly. Orders and prints — never the future.

Check Yourself

1. What is the difference between a Level 1 quote and a Level 2 quote?
2. In the ladder shown in this module, what were the best bid and the best ask, and what was the spread?
3. What is absorption, and what kind of order usually causes the refilling bid that creates it?
4. Give two reasons a big bid wall can fail to act as support.
5. A market order to buy 500 shares fills 100 shares at $20.10, 100 at $20.25, and 300 at $20.60. What is the average fill price, and how much extra did the buyer pay versus filling everything at $20.10?

Answers:

1. A Level 1 quote shows only the top of book — the single best bid and ask. Level 2 shows the full book: orders and sizes at every price level above and below.
2. Best bid $50.00 (2,000 shares); best ask $50.02 (500 shares); the spread was $0.02.
3. Absorption is heavy selling into one price that does not fall, because a buyer keeps taking the other side; the refilling displayed bid is usually the visible tip of an iceberg order.
4. The order can be canceled in an instant — quotes are offers, not promises — and it may be spoofing: a fake order never meant to trade. (Hidden orders also mean the book is never the full picture.)
5. Total cost = (100 × $20.10) + (100 × $20.25) + (300 × $20.60) = $2,010 + $2,025 + $6,180 = $10,215, so the average fill is $10,215 ÷ 500 = **$20.43 per share**. Filling everything at $20.10 would have cost $10,050, so the buyer paid **$165 extra**.

> **RULE**
> Use Level 2 to judge liquidity and risk — never as a promise about price. If the book looks thin, the correct trade is usually no trade.



AA2-03

ORDER FLOW BASICS

Aggressive buyers and sellers, delta, absorption — following the footprints honestly.

Alpha Academy Level 2 · Team Alpha Trading

Order Flow Basics: Following the Footprints

In Level 1 you learned to read charts — pictures of where price has been. **Order flow** is one step closer to the action. Order flow means watching the actual orders being placed and filled right now: how many shares are trading, at what prices, and whether buyers or sellers are the ones pushing. A chart shows you the footprints after the crowd has walked through. Order flow tries to watch the feet.

Here is the most important sentence in this module, and the honest one: **order flow shows you what traders just did. It does not show you what price will do next.** No feed, no tool, and no indicator can do that. Used well, order flow is a confirmation tool — a way to check whether real buying and selling agrees with your chart. Used badly, it turns into fortune-telling with extra numbers. This module teaches the well version.

After reading it, you will understand aggressive buyers and sellers, order-flow delta, absorption, exhaustion — and why the biggest traders work hard to hide their true size.

> **NOTE**
> This module builds on Level 1. If the words bid, ask, and spread are fuzzy, go back to AA-04 (How Trading Actually Works) first — order flow will not make sense without them.

Orders That Happened vs. Opinions About Orders

Every trade has two sides: someone bought, and someone sold. That obvious fact leads to the key idea in order flow.

A **limit order** is an order to buy or sell only at a price you choose or better. When you place one, your order sits in line and waits. Limit orders are opinions — they say "I *would* buy at this price, if price comes to me." They might get filled, or price might never reach them and they get cancelled. A wall of limit orders on a screen is a wall of *intentions*, and intentions change every second.

A **market order** is an order to buy or sell right now, at whatever the best available price is. Market orders are actions. They cannot wait, and they cannot be taken back once they fill. When one executes, a real trade prints — real shares change hands at a real price.

Order flow analysis means studying the executed trades — the market orders that actually filled — instead of studying opinions. A television commentator has an opinion. A strategy drawn on a chart is an opinion. Ten thousand shares that just traded at the ask are a fact. Order flow traders care about facts: who is actually trading, how much, and how urgently.

Aggressive Buyers and Aggressive Sellers

Each stock has a **bid** (the highest price a waiting buyer will pay) and an **ask** (the lowest price a waiting seller will accept). The small gap between them is the spread. Now watch what happens when someone is in a hurry.

An **aggressive buyer** will not wait in line at the bid. They send a market order that takes the shares offered at the ask — traders say they are **lifting the ask**. They pay the higher price because getting filled *now* matters more than saving a penny or two.

An **aggressive seller** does the mirror image. They send a market order that sells into the waiting buyers at the bid — traders say they are **hitting the bid**. They accept the lower price because getting out *now* matters more.

Picture a stock quoted at $50.00 bid and $50.02 ask. In one minute, you see these trades print:

What printed	Shares	Who was aggressive?
Trades at $50.02 (the ask)	8,000	Buyers — they lifted the ask
Trades at $50.00 (the bid)	3,000	Sellers — they hit the bid

Most order flow tools classify every trade exactly this way: a trade at the ask counts as **buy volume**, and a trade at the bid counts as **sell volume**. It is a simple, sensible rule — the side that crossed the spread to get filled immediately is the side that wanted it more.

Urgency is information. A buyer who calmly waits at the bid might buy or might wander off. A buyer who lifts the ask for 8,000 shares in sixty seconds is telling you something with their wallet: *I want in, now, at this price.*

Order-Flow Delta: One Simple Subtraction

Now we can build the first real order flow number. In this corner of trading, **delta** means one subtraction:

Delta = aggressive buy volume – aggressive sell volume

That is it. Using the minute above: 8,000 bought aggressively minus 3,000 sold aggressively gives a delta of **+5,000 shares**. Positive delta means aggressive buyers did more. Negative delta means aggressive sellers did more. A delta near zero means the two sides were roughly balanced that minute.

> **NOTE**
> This is a different word-use than options. In AA-12 you learned that an option's delta measures how much the option price moves when the stock moves $1. Order-flow delta has nothing to do with that. Same word, two jobs — the context tells you which one is meant.

Traders watch delta bar by bar, the same way you watched candlesticks in Level 1. Imagine a stock climbing from $50 to $51 over thirty minutes while every 5-minute bar shows positive delta: +4,000, +6,500, +3,200, +5,800, +2,900, +4,400. Buyers are not just winning on price — they are doing the pushing, bar after bar. That is a healthier uptrend than one where price drifts up while delta is negative, which hints the move is running on fumes.

The reverse matters too. If price rises but delta falls bar after bar, the rise is weakening underneath — fewer aggressive buyers are willing to pay up. That does not guarantee a reversal. It is a yellow light, not a red one.

Cumulative Delta: The Day's Running Score

Cumulative delta is simply delta added up over time — a running total for the session. Start at zero when the market opens. Each bar, add that bar's delta. If the morning prints +5,000, then −2,000, then +7,000, cumulative delta stands at +10,000. Traders plot it as a line under the price chart and compare the two: when price makes a new high for the day and cumulative delta makes a new high too, buyers have backed the move all day. When price pokes to a new high but cumulative delta is well below its own high, the new high happened with less aggressive buying than earlier highs — a warning worth noticing, not a prophecy.

Absorption: The Wall That Eats Selling

Some of the most useful order flow ideas are behaviors, not numbers. The first is **absorption**.

Absorption is what happens when aggressive traders keep attacking one price level, trade after trade, and price refuses to move. Somebody on the other side is quietly soaking up — absorbing — everything thrown at them.

Here is a story in numbers. A stock is trading at $50.00. Bad news hits a competitor, and nervous holders start selling aggressively. Over ten minutes, sellers hit the bid for roughly **200,000 shares** at and around $50. Normally, that flood of market sell orders would shove the price down through $49.50, $49.00, lower. Instead, the price never trades below $49.98. Every time sellers hit the bid at $50.00, the bid is instantly refilled with fresh buy orders.

That means a large buyer is standing at $50.00 absorbing all of it. They are not lifting the ask — they do not have to. The sellers are coming to *them*. Then the sellers run out of urgency, small buy trades print at the ask, and with no selling pressure left, price lifts easily to $50.40.

The lesson is not "absorption means buy." The lesson is: **when huge aggressive volume fails to move price, someone big is on the other side.** Order flow lets you see that fight. A chart alone would show a flat line at $50 and tell you nothing about the 200,000-share war underneath it.

The same happens in reverse at the top: aggressive buyers lift the ask for 200,000 shares into a price that will not rise past $52.00 — a large seller is absorbing the buying.

Exhaustion: When the Push Runs Out of Pushers

The second behavior is **exhaustion** — a move that dies because the aggressive side simply runs out of energy.

Another story. A stock runs from $50 to $52 in one exciting hour. Watch the aggressive buy volume in each 5-minute slice of the last part of that run:

5-minute slice	Price change	Aggressive buy volume
1	$51.20 → $51.45	40,000 shares
2	$51.45 → $51.65	30,000 shares
3	$51.65 → $51.80	18,000 shares
4	$51.80 → $51.88	9,000 shares

Price is still rising, but look at the cost: each new push is smaller in price and powered by fewer aggressive buyers. The crowd desperate to buy at $51.20 is far less desperate at $51.85. That is exhaustion — the

buyers are spent. It does not take much to tip a move like this over; in our story, one ordinary wave of selling drops the stock to $51.30 in minutes, because no eager buyers are left underneath to catch it.

Exhaustion appears on the sell side too: a falling stock where aggressive sell volume shrinks bar after bar — 40,000, then 28,000, then 12,000 — while each new low gets tinier. The sellers are running out. Either way, exhaustion reads the fuel gauge, and the fuel gauge matters.

Stacked Imbalances: A Tool Feature, Honestly Described

Some order flow software displays **stacked imbalances** — a pattern where, at several price levels in a row inside one candle or one column of trades, aggressive buying heavily outweighs aggressive selling (or the reverse) at each level. For example, at $50.01 buyers outnumber sellers 4-to-1, at $50.02 it is 5-to-1, at $50.03 it is 3-to-1 — three levels in a row leaning the same hard way. Tools flag this as one-sided aggression.

Be honest about what this is: a *display feature of some software*, highlighting a few seconds of very one-sided trading. It describes the same lifting-the-ask behavior you already understand, dressed up in a chart. It is not a law of the market, plenty of professionals never look at it, and a stack of imbalances can be run over by a bigger trader thirty seconds later. Learn the underlying behavior first; the decorations are optional.

The Limits: What Order Flow Cannot Do

Order flow has hard limits, and a trustworthy education has to state them plainly.

- **It only shows the last few seconds.** A print tells you a trade happened. It says nothing about the next trade. Aggressive buying at 10:00 a.m. can be followed by aggressive selling at 10:01 a.m. from the very same traders taking profits.
- **Big players hide their size.** A pension fund that wants to buy 500,000 shares does not show 500,000 shares. It might use an **iceberg order** — an order that displays only a small piece (say 100 shares) and automatically refills that piece each time it fills, like an iceberg's tip above water while the real mass hides below. It might also split the order across many brokers and hours. The size you see is often the size they *let* you see.
- **A trade needs two sides.** Every "aggressive buy" print also had a seller on the other side. If a huge fund was the passive seller in that print, the "strong buying" you saw was actually a giant quietly unloading shares onto eager small buyers. Order flow shows the aggressor; it does not tell you who the patient giant opposite was, or why they traded.
- **It is fast and noisy.** Thousands of prints per minute include algorithms testing prices, hedges being adjusted, and trades that mean nothing for direction. Reading meaning into every wiggle invents patterns that are not there.

> **RISK**
> No order flow feed shows intent or the future. It shows prints — completed trades. Anyone selling you order flow as a crystal ball is hiding this paragraph.

How a Beginner Should Actually Use This

Keep order flow in its proper job: **confirmation**.

- **Check agreement.** Your chart setup says "buyers are taking control here." Order flow either agrees (positive delta, buyers lifting the ask, sellers failing to push price down) or it does not. Agreement adds confidence. Disagreement is a reason to size smaller or wait.
- **Watch important levels, not every second.** Absorption and exhaustion mean the most at prices that already matter — yesterday's high, a big round number like $50, a level from your chart work. A fight at a meaningless price is just noise.
- **Review it in your journal.** After a trade, ask: did the flow confirm my idea while I was in? Write the answer down. Over 30 paper trades, that habit teaches more than staring at any live feed.
- **Paper trade first, always.** Watch flow on a practice account for weeks before it influences one real dollar. These ideas are lenses for your Level 1 skills — they do not replace a plan, a stop, or position sizing from AA-19.

Common Mistakes at This Level

- **Treating delta like a signal machine.** Positive delta does not mean "buy now." It means buyers *were* aggressive. Past tense, always.
- **Confusing the two deltas.** Options delta (AA-12) and order-flow delta are unrelated. Mixing them up will scramble both subjects.
- **Believing displayed size is real size.** Iceberg orders and split orders mean the biggest traders are the hardest to see. Assume you are seeing a fraction of the truth.
- **Forgetting the other side of the print.** Every aggressive buy was absorbed by someone selling. Sometimes that someone is the smartest money in the room.
- **Staring at the tape instead of the plan.** Order flow is a tool you check at decision points — not a television to watch all day while your plan gathers dust.

Chapter Summary

- Order flow studies executed trades — real market orders that filled — rather than opinions and intentions.
- Aggressive buyers lift the ask; aggressive sellers hit the bid. Tools classify trades at the ask as buy volume and trades at the bid as sell volume.
- Order-flow delta = aggressive buy volume − aggressive sell volume. It is not the same as options delta.
- Cumulative delta is delta's running total across the session, used to check whether buyers or sellers have backed a move all day.
- Absorption: heavy aggressive volume that cannot move price, because a large trader on the other side is soaking it up.
- Exhaustion: a move where the aggressive side's volume shrinks bar after bar — the fuel is running out.
- Stacked imbalances are a display feature in some software showing several one-sided price levels in a row — a decoration on the same basic behavior, not a law.
- Order flow shows only the recent past, big traders hide size with icebergs and split orders, and every print has two sides. It confirms; it never predicts.

Check Yourself

1. What is the difference between a limit order and a market order, and which one does order flow study?

2. A stock is quoted $50.00 bid / $50.02 ask. A trade prints at $50.02. Who was aggressive, and how do most tools classify that volume?
3. In one bar, aggressive buys total 12,000 shares and aggressive sells total 7,500 shares. What is the delta for that bar?
4. Sellers hit the bid for about 200,000 shares at $50.00, but the price never falls below $49.98. What is this behavior called, and what does it suggest?
5. Name two hard limits of order flow that a beginner must remember.

Answers: 1) A limit order waits at a chosen price and may never fill — it is an intention. A market order fills immediately at the best available price. Order flow studies the executed trades, which come from market orders. 2) The buyer — they lifted the ask instead of waiting at the bid. Tools classify trades at the ask as buy volume. 3) Delta = 12,000 − 7,500 = +4,500 shares; aggressive buyers did more. 4) Absorption — a large buyer was standing at $50.00 soaking up all the aggressive selling, refilling the bid each time it was hit. 5) Any two of: it only shows the last few seconds, not the future; big traders hide their true size (icebergs, split orders); every print has two sides, and the passive side may be a giant with the opposite plan; the data is fast and noisy.

> **RULE**
> Order flow is a witness, not a fortune teller. Let it confirm what your chart and your plan already say — never let a few seconds of prints overrule them.



AA2-04

MARKET INTERNALS

Breadth, the TICK, and put/call — the dashboard gauges of the whole market.

Alpha Academy Level 2 · Team Alpha Trading

Market Internals: The Market's Dashboard Gauges

In Level 1 you learned that indexes like the S&P 500 tell you what "the market" did. But an index is an average, and averages can hide the truth. The S&P 500 can finish the day up a little while most individual stocks quietly had a terrible day — a few giant companies pulled the average up and masked the damage underneath.

Market internals are the gauges that look underneath the average. Think of a car's dashboard. The speedometer is the index — one headline number. The internals are the fuel gauge, the oil pressure, the engine temperature: they tell you the *condition* of the machine, not just its speed. Internals answer questions like: Are most stocks rising, or just a few? Is money flowing in calmly or panicking out? Is today a healthy day or a fragile one?

Learn this framing now, because everything in this module hangs on it: **internals describe conditions. They do not time trades.** A fuel gauge never tells you when to turn the steering wheel. These gauges will help you judge the weather before you drive — they will not drive for you.

> **NOTE**
> Internals are built mostly from New York Stock Exchange (NYSE) data — the exchange where most large US companies list their stock. When this module says "stocks," it generally means NYSE-listed stocks unless stated otherwise.

Breadth: How Many Stocks Are Actually Participating?

The first and most important internal is **breadth** — how many stocks are rising versus how many are falling. On any trading day, each stock ends up in one of two camps:

- **Advancers** — stocks trading higher than their previous close.
- **Decliners** — stocks trading lower than their previous close.

(A third, tiny group finishes unchanged and is usually ignored.)

Breadth is a participation count. A rally where 2,500 stocks advance and 500 decline is broad and healthy — nearly everyone is being carried up. A rally where 900 advance and 2,100 decline while the index still closes green is narrow and fragile — a handful of giants are doing all the lifting, and the average stock is sinking.

The **advance-decline line** (often called the A-D line) turns daily breadth into a running trend. Each day, subtract decliners from advancers and add the result to a running total. Example:

Day	Advancers	Decliners	Daily net	A-D line
Monday	2,000	1,000	+1,000	1,000
Tuesday	1,200	1,600	−400	600
Wednesday	2,300	800	+1,500	2,100

One day means little. The A-D line's value is its *direction over weeks*: if the index makes new highs while the A-D line also makes new highs, participation is confirming the trend. If the index makes new highs but the A-D line is flat or falling, fewer and fewer stocks are carrying the market — a warning sign traders

watch respectfully, though on its own it still times nothing.

The TICK Index: The Market's Heartbeat, Second by Second

Breadth counts the whole day. The **TICK index** takes the market's pulse *right now*, this second.

Here is the exact definition: **the TICK index = the number of NYSE stocks whose last trade was an uptick (a trade higher than the previous trade) minus the number whose last trade was a downtick (a trade lower than the previous trade), at that moment.**

TICK = (# stocks ticking up) − (# stocks ticking down)

If 1,800 stocks just ticked up and 900 just ticked down, the TICK reads **+900**: a wave of buying is moving through the market at this instant. If it reads **−1,100**, a wave of selling is moving through. The TICK jumps around all day — it is a heartbeat, not a diagnosis — so traders watch its range and its extremes rather than any single blip.

By long-standing convention, readings beyond **+1,000 or −1,000** are considered extreme: +1,000 or higher suggests a burst of aggressive, broad buying; −1,000 or lower suggests a burst of aggressive, broad selling. Treat those numbers as a convention traders use, not a physical law — and note that an extreme TICK often marks a moment when the burst is nearly spent, which is why experienced traders are careful about chasing price at TICK extremes in either direction.

TRIN: Breadth Weighted by Volume

The **TRIN** (also called the Arms Index, after its creator) adds one refinement: it weighs breadth by *volume*, asking not just how many stocks fell, but how much trading volume the falling stocks attracted.

TRIN = (advancers ÷ decliners) ÷ (advancing volume ÷ declining volume)

That looks unfriendly, so run it with real numbers. Suppose advancers and decliners are tied: 1,500 up, 1,500 down, so the first ratio is 1.0. But advancing stocks traded 600 million shares while declining stocks traded only 200 million, so the second ratio is 600 ÷ 200 = 3.0. Then:

TRIN = 1.0 ÷ 3.0 = 0.33

A TRIN of 0.33 says: the same number of stocks rose as fell, but three times the *money* flowed through the rising ones. Buyers were far more committed. The standard reading is simple — **TRIN below 1.0 means volume is favoring advancers (a bullish lean); TRIN above 1.0 means volume is favoring decliners (a bearish lean)**. Very high TRIN readings (2.0 and beyond) often appear on heavy sell-off days, when volume floods into falling stocks. One paragraph is honestly all a beginner needs here: check which side of 1.0 it sits on, and how far.

New Highs vs. New Lows: The Extremes List

Every day, some stocks reach their highest price in a year (a **52-week high** — the highest price of the last 52 weeks, meaning one year) and others reach their lowest (a **52-week low**). Counting them is another breadth check, this time at the extremes.

On healthy days, new highs swamp new lows — say 140 stocks making new yearly highs against 12 making new lows. Money is pushing stocks to fresh strength all over the market. On weak days the list flips: 8 new highs against 210 new lows means stocks are breaking down everywhere you look.

The pattern to remember is persistence. A single day's list is weather; several weeks where new lows keep beating new highs while the index looks calm is climate — and climate is what gets traders hurt when they only watch the speedometer.

The Put/Call Ratio: How Much Insurance Is Being Bought?

In AA-11 you learned that a **put** is an option that rises in value when the underlying falls — many traders buy puts the way they buy insurance. The **put/call ratio** compares how many puts traded to how many calls traded across the market:

Put/call ratio = total put volume ÷ total call volume

A ratio of 0.70 means 70 puts traded for every 100 calls — a normal, calm sort of day. A ratio pushing above 1.0 means more puts than calls changed hands: traders are paying up for downside protection, which usually means fear is elevated. A ratio sinking toward 0.50 means call buying dominates — traders are chasing upside.

Read it with care. Professionals buy puts to *hedge* (protect) stock they own and intend to keep, so heavy put volume does not automatically mean "everyone expects a crash." The ratio is a mood ring for the options market: most useful at extremes, and only as context — never as a stand-alone reason to trade.

The VIX: The Headline Gauge

One internal gets quoted on television: the **VIX**, the market's fear gauge. The VIX is calculated from the prices of S&P 500 index options and expresses the volatility the market expects over the next 30 days, quoted as an annualized percent. A VIX of 20 means options are priced for roughly ±20% movement over a year — about ±5.8% over the next 30 days (20 ÷ √12). Low readings (the low teens) describe a calm, confident market; readings above 30 describe real stress; the spikes of true panics have carried it far higher.

You cannot buy the VIX itself — it is a calculated number, like an index. (Products based on VIX futures exist, and they carry heavy complications; the Level 2 volatility module covers the VIX, IV, and how to think about both in depth — read it before ever touching a volatility product.)

For this module, the VIX is your headline gauge: a quick daily check of how much fear is priced into the market before you look at anything else.

Reading the Dashboard in the Morning

Internals earn their keep as a routine. Before the open or in the first hour, a trader glances at the dashboard and forms a simple judgment: does today feel **risk-on** (conditions favoring buyers and risk-taking) or **risk-off** (conditions favoring caution and defense)? Here are two mornings described in numbers.

A risk-on morning, around 10:30 a.m.:

Gauge	Reading	What it says
Advancers vs. decliners	2,100 vs. 900	Broad participation in the rise
TICK	Mostly positive, peaks near +850	Buying waves, not yet extreme
New highs vs. new lows	140 vs. 12	Strength everywhere, little damage

Gauge	Reading	What it says
Put/call ratio	0.72	Normal mood, little hedging panic
VIX	14 and drifting down	Fear low and falling

Conclusion: a healthy, broad, calm up day. A trader's normal plans apply.

A risk-off morning, same time:

Gauge	Reading	What it says
Advancers vs. decliners	600 vs. 2,400	Most stocks falling, whatever the index says
TICK	Repeatedly below –1,000	Waves of broad, aggressive selling
New highs vs. new lows	8 vs. 210	Breakdowns everywhere
Put/call ratio	1.25	Traders paying up for protection
VIX	31 and rising	Fear high and climbing

Conclusion: a stressed, defensive day. The same trader shrinks position sizes, skips marginal setups, or simply stands aside. Notice what the gauges did *not* do in either example: they never said "buy at 10:31" or "short at 11:05." They set the weather. Your plan still makes the decisions.

Common Mistakes at This Level

- **Trading off a gauge.** A TICK of –1,050 is a reading, not an entry signal. Internals describe conditions; your setup and plan time your trades.
- **Watching one blip.** The TICK changes every second. Reacting to single prints is noise-chasing; watch the pattern and the extremes over the day.
- **Forgetting what the index hides.** A green index with terrible breadth is not a healthy day. Always check who is actually participating.
- **Reading the put/call ratio backwards.** Above 1.0 means puts outnumber calls — usually elevated fear and hedging — not a crowd of geniuses predicting a crash.
- **Treating conventions as laws.** ±1,000 TICK extremes and "VIX above 30 = panic" are useful conventions, not guarantees. Extreme readings can stay extreme longer than a beginner's account can stay patient.

Chapter Summary

- Market internals are dashboard gauges that look underneath the index averages — they describe the market's condition, not just its direction.
- Breadth counts advancers vs. decliners; the advance-decline line turns that into a running total that shows whether participation is confirming a trend.
- The TICK index = NYSE stocks ticking up minus stocks ticking down, at that moment; readings beyond ±1,000 are treated by convention as extremes.

- TRIN weighs breadth by volume: below 1.0 leans bullish (volume favoring advancers), above 1.0 leans bearish.
- New 52-week highs vs. new 52-week lows show whether strength or breakdowns dominate across the market.
- The put/call ratio (put volume ÷ call volume) gauges fear and hedging in the options market — most useful at extremes, always as context.
- The VIX is the headline fear gauge: expected 30-day volatility from SPX option prices, quoted annualized (VIX 20 ≈ ±5.8% over 30 days). You cannot buy the VIX itself.
- A morning dashboard check sorts the day into risk-on or risk-off feel. Gauges set the weather; they never time a trade.

Check Yourself

1. The S&P 500 closes slightly green, but advancers were 900 and decliners were 2,100. What does breadth tell you that the index hid?
2. At one moment, 1,700 NYSE stocks just ticked up and 950 just ticked down. What is the TICK reading, and is it extreme by the usual convention?
3. Advancers and decliners are tied at 1,500 each, advancing volume is 600 million shares, and declining volume is 200 million. What is the TRIN, and which side is volume favoring?
4. What does a put/call ratio of 1.25 mean in plain words, and why should you be careful interpreting it?
5. In one sentence, what are market internals for — and what are they not for?

Answers: 1) Participation was weak and bearish — most stocks fell; a few large stocks pulled the index up and masked broad damage. 2) TICK = 1,700 − 950 = +750. Positive and strong, but not beyond the +1,000 convention for an extreme. 3) TRIN = (1,500 ÷ 1,500) ÷ (600 ÷ 200) = 1.0 ÷ 3.0 = 0.33. Below 1.0 — volume strongly favors the advancers, a bullish lean. 4) It means 125 puts traded for every 100 calls — traders are buying a lot of downside protection, usually a sign of elevated fear. Careful, because professionals also buy puts simply to hedge stock they plan to keep, so it is context, not a prediction. 5) Internals describe the market's conditions — its health, participation, and mood; they do not time or trigger trades.

> **RULE**
> Check the gauges to know the weather, then trade your plan. A dashboard has never once told a driver when to turn — and it never will.



AA2-05

VOLATILITY & THE VIX

The fear gauge from the ground up — regimes, term structure, and the decay warning.

Alpha Academy Level 2 · Team Alpha Trading

Volatility & the VIX A–Z

In Level 1 (AA-12) you met **implied volatility** as one of the ingredients in an option's price — the market's fear-and-excitement price tag. This module goes all the way into volatility itself: what it is, how the market measures it, and how to read the most famous volatility number in the world, the **VIX**.

After this module you will be able to do four things most beginners cannot. You will read the VIX like a weather report. You will turn it into an expected price range in real dollars. You will understand why popular "buy the fear" products quietly bleed money even when you are right about fear. And you will use volatility the way experienced traders actually use it: to set expectations and position size — not as a fortune teller.

> **NOTE**
> Everything here is education, not financial advice. Volatility numbers describe how big moves might be. They never tell you which direction price will go, and the market regularly moves more than the numbers suggest.

Volatility in Plain Words

Volatility means how much, and how fast, a price moves around. A sleepy stock that wiggles 0.3% on a typical day has low volatility. A wild stock that swings 5% on a typical day has high volatility.

Think of two buses that both average a 40-minute trip to the airport. Bus A arrives within 5 minutes of its schedule, every time. Bus B sometimes takes 15 minutes and sometimes takes 90. Same average trip — very different volatility. Bus B is not slower. It is less predictable.

Professionals measure volatility with a statistic called **standard deviation** — in plain words, the size of a "typical" move. When traders quote volatility, they are really saying: "On about two out of three days, expect the move to land inside this size." The other one day in three, the move is bigger. That last part matters, and we will come back to it.

One more idea before we go further: volatility says **nothing about direction**. A stock rocketing upward can be just as volatile as one crashing. Volatility measures the size of the waves, not which way the tide is flowing.

Historical Volatility vs. Implied Volatility

There are two kinds of volatility, and mixing them up causes real confusion.

Historical volatility (HV) looks backward. It measures how much a price actually moved over a past stretch of time — the last 10, 30, or 60 days, for example. It is a fact, taken from the record books. You may also hear it called **realized volatility**, because it is the volatility that really happened.

Implied volatility (IV) looks forward. It is backed out of live option prices: given what traders are paying for options right now, how big a move must they be expecting? Nobody observes IV directly — it is *implied* by the prices people pay, the way the heat of a room is implied by everyone taking their jackets off.

	Historical Volatility	Implied Volatility
Looks at	The past	The future
Comes from	Actual past prices	Current option prices

	Historical Volatility	Implied Volatility
Question it answers	How much did it move?	How much is the market paying for movement?
Changes	Slowly, as new days replace old ones	Instantly, the moment option prices change

Traders constantly compare the two. Most of the time IV sits a little **above** HV — option sellers charge a small cushion for the risk they take on, like an insurance company charging slightly more than the average accident costs. When IV jumps far above HV, it usually means the market is bracing for a specific event: an earnings report, a court ruling, a central bank decision. That gap is the market telling you, in dollars, how unusual it thinks the near future will be.

Meet the VIX

The **VIX** is an index calculated from the prices of SPX options — options on the S&P 500 index. It answers exactly one question: **how much movement is the market paying for over the next 30 days?**

The VIX is quoted as a percentage, and that percentage is **annualized** — scaled to a full year. A VIX of 20 means: "Based on today's SPX option prices, the market expects the S&P 500 to move about ±20% over the next year, at the current pace." The next section converts that into the much more useful 30-day number.

Because the VIX rises when traders rush to buy SPX put options as protection (you learned about protective puts in AA-11), it earned the nickname **the fear gauge**. When fear is high, insurance is expensive, and the VIX is high. When the market is calm and nobody wants insurance, the VIX sinks.

> **RISK**
> You cannot buy the VIX itself. It is a calculated number — a measurement, like a temperature reading. Nobody can sell you a degree Fahrenheit, and nobody can sell you a VIX point. Products exist that are tied to VIX *futures*, and as you are about to see, they behave very differently from the number on the television screen.

The Math: Turning the VIX Into a Price Range

Annualized percentages are hard to feel. Here is the conversion every trader should know by heart.

Volatility over one month is the annual number divided by the square root of 12 (there are 12 months in a year). The square root of 12 is about 3.46.

- VIX 20 → 20 ÷ 3.46 ≈ **5.8%**
- So a VIX of 20 means the market expects the S&P 500 to move about **±5.8% over the next 30 days**

Now put dollars on it. Say the S&P 500 (SPX) is trading at 6,000 and the VIX is 20.

- 5.8% of 6,000 = 0.058 × 6,000 = **348 points**
- Expected 30-day range: roughly **5,650 to 6,350**

That is the market's priced-in expectation: about two times out of three, SPX lands inside that zone over the next month. The other one time in three, it lands outside it — sometimes far outside. In the 2008 crisis the VIX closed near 81, and in March 2020 it closed at 82.69. At those levels the market was pricing monthly

moves of more than ±23%. The numbers are a weather forecast, not a promise — but a forecast is far better than a guess.

VIX level	Expected move over 30 days (÷ √12)	On SPX at 6,000
12	±3.5%	±210 points
15	±4.3%	±260 points
20	±5.8%	±348 points
30	±8.7%	±520 points
40	±11.5%	±690 points

Volatility Regimes: Reading the Weather

Traders talk about the VIX in rough bands called **regimes** — the general weather pattern of the market. These bands are conventions, not laws of nature, but they are useful shared language.

Regime	Typical VIX	What it feels like
Calm	~12–15	Quiet days, small moves, cheap options, slow climbs
Normal	~15–20	Ordinary wiggle, healthy two-way trading
Stressed	~25–35	Real fear, big daily swings, expensive options
Crisis	40+	Panic; in 2008 and 2020 the VIX closed above 80

Between "normal" and "stressed" — roughly 20 to 25 — traders usually say volatility is *elevated*: the market is nervous but not panicking.

Two rules for using regimes honestly. First, a regime describes the **present**, not the future. A calm VIX of 13 does not mean next month will be calm; some of the worst crashes in history started from quiet markets. Second, regimes can persist. The VIX spent most of 2017 under 12, and it spent months above 30 in 2022. "It has to come back down soon" is not a trading plan — it is how accounts get hurt waiting.

Why the VIX Usually Runs Opposite the Stock Market

Watch the VIX for a few weeks and you will notice it usually moves opposite the S&P 500. Here is why.

When stocks fall fast, big investors and regular traders alike buy SPX put options as insurance against further losses. That rush of demand pushes put prices up. Higher option prices mean higher implied volatility — and the VIX, which is built from those very option prices, jumps.

When stocks drift happily upward, nobody is in a hurry to buy insurance. Put prices sag, IV sags, and the VIX sinks.

So the VIX is best understood as **the price tag on insurance**. Fear is sudden, so the VIX tends to spike upward fast. Calm returns gradually, so the VIX tends to bleed back down slowly. Traders summarize this with a picture: the stock market takes the stairs up and the elevator down — and volatility takes the elevator up.

Term Structure: Contango and Backwardation

VIX futures (covered next) exist for different expiration months. The way those monthly prices line up, nearest month to farthest, is called the **term structure** — and its shape tells you how the market feels right now.

Contango means later months are priced *higher* than near months. Example: this month's VIX future at 15, next month at 16.5, the month after at 18. This is the normal, calm shape. The logic: the further out you look, the more time there is for something to go wrong, so longer-dated protection costs more.

Backwardation means the front months are priced *higher* than later months. Example: this month at 34, next month at 29, the month after at 24. This is the stress shape. It says: "Forget next year — we want protection *right now*, and we will pay up for it." Backwardation usually appears during sharp selloffs, and historically it does not last long, because panic itself does not last long.

Shape	Front month vs. later months	Market mood
Contango	Later months higher (15 → 16.5 → 18)	Calm, normal
Backwardation	Front months higher (34 → 29 → 24)	Stressed, protection wanted now

Keep this section in mind. The usual contango shape is exactly what makes the most popular volatility products quietly dangerous to hold.

VIX Futures and ETPs — and the Decay Trap

Since you cannot buy the VIX itself, an industry of products sells you something close:

- **VIX futures** are contracts (futures work the way you learned in AA-15) that settle to a VIX value in a future month. A trader who buys one is betting on where the VIX *will be* at that expiration — not where it is today.
- **VIX options** are options on those futures.
- **Volatility ETPs** — exchange-traded products, funds you buy and sell like a stock — hold VIX futures so everyday accounts can get exposure without a futures account.

Here is the trap, and it is built into the furniture. Because VIX futures are usually in contango, an ETP that holds the front-month contract must constantly **roll**: sell the expiring contract, buy the next month's — which is priced higher. It sells low and buys high, month after month, *by design*.

Work this example slowly. The VIX sits dead still at 15 all month. The front-month future starts the month at 16 and the second month at 17.5, because of contango. But a future must settle at the actual VIX value when it expires — so as expiration approaches, that 16 future melts down toward 15. The fund's holding lost about a point even though **fear never changed**. Then the fund rolls into the next contract at a premium price, and the melting starts again.

Repeat that bleed month after month and the result is brutal: long-volatility ETPs have historically lost the great majority of their value over long holding periods, even through years that included scary moments. Their prices fall so persistently that the funds periodically do **reverse splits** (combining shares to lift the price back up) just to keep trading at a respectable number.

> **RISK**
> Long-volatility ETPs are short-term trading instruments with a built-in leak — not investments, and not "buy and hold some fear for safety." Products that bet the other way, on calm, carry the opposite danger: one sudden panic can damage them almost overnight. Neither direction is a safe place to park money.

Expected-Move Math for Events

The same conversion skill works on any option, not just the VIX. A quick estimate of the move the market expects over any stretch of days is:

Expected move % ≈ IV × √(days ÷ 365)

Worked example. A stock trades at $200. Its options carry an IV of 50%, and you want the expected move over the next 7 days.

- days ÷ 365 = 7 ÷ 365 ≈ 0.0192
- √0.0192 ≈ 0.138
- 50% × 0.138 ≈ **6.9%**
- 6.9% of $200 ≈ **$14** — the market is pricing roughly **$186 to $214** over the next week

This matters most around **earnings reports** (a company's scheduled scorecard announcements, from AA-09). IV inflates before earnings because nobody knows which way the report will knock the stock. The instant the report prints, that uncertainty is gone — win or lose — and IV typically falls sharply. Traders call this **IV crush**. It is the trap from AA-14 in mathematical form: you can buy a call, watch the stock rise after earnings, and *still* lose money, because the option's inflated event premium evaporated overnight. The expected-move formula lets you check before you pay: if the market is pricing a ±7% move and your whole idea only needs 3%, you are paying for movement you do not even believe in.

Many chart platforms display the expected move for you — often shown as a range around the current price for an expiration date. Now you know the arithmetic behind the number, and you can sanity-check it instead of trusting it blindly.

What Traders Actually Do With the VIX

Experienced traders do not use the VIX as a buy or sell signal. They use it as context — the weather report they check before deciding how to dress. Concretely:

- **Set expectations.** At a VIX of 13, a 3% daily swing in the S&P 500 would be extraordinary. At a VIX of 35, it is an ordinary Tuesday. Matching your expectations to the regime keeps normal days from feeling like emergencies.
- **Size positions.** This is the biggest one, and it connects straight to AA-19 (Risk Management). Your risk per trade stays fixed in dollars — say $100. In calm times, a sensible stop might sit $2 per share away, so you can trade 50 shares and risk $100. In a stressed regime, the same stock whipsaws $5 a day, so your stop must sit $5 away — and the same $100 of risk now means only 20 shares. High volatility does

not mean "trade bigger." It means trade *smaller*, because each unit moves more.

- **Judge option prices.** When IV is high, option premium is rich — strategies that *sell* premium (like the credit spreads in AA-13) collect more, while buyers pay up. When IV is low, options are cheap for buyers and sellers collect little for the risk. Volatility tells you which side of the counter is getting the better deal today.
- **Time protection.** Insurance on your portfolio is cheapest when nobody wants it — in calm, low-VIX markets — and most expensive in the middle of a panic, which is exactly when most people try to buy it.

> **TIP**
> Build a two-second habit. Before any trade, glance at the VIX and name the regime out loud — "calm," "normal," "stressed." Then ask: does my position size match this weather? That tiny pause prevents the single most common volatility mistake: trading crisis-sized positions on a calm plan, or calm-sized stops in a crisis.

Common Mistakes at This Level

- Trying to "buy the VIX" in a regular brokerage account and ending up holding a decaying long-volatility ETP for months, wondering why it falls while nothing bad happens.
- Reading a VIX of 20 as "the market will move 20% this month." The number is annualized — the 30-day expectation is about 5.8%.
- Treating a VIX spike as an automatic buy signal for stocks. In 2008 the VIX crossed 40 in October and the market kept falling for five more months.
- Treating a low VIX as a safety guarantee. Calm regimes can last for years — and can also end in a single week.
- Ignoring contango. Holding any product built on VIX futures without knowing what it costs to roll, every single month, in the usual market shape.
- Buying options before earnings without running the expected-move math, then blaming IV crush for a loss that was visible before the trade.
- Confusing a VIX futures price with the spot VIX. Next month's future at 18 does not mean "the VIX is 18," and it does not mean the market predicts the VIX will be 18 — it is a tradable price shaped by the term structure, not a forecast.

Chapter Summary

- Volatility measures the size of price moves, never their direction; it is quoted as a standard deviation — the size of a typical move.
- Historical volatility is what actually happened in the past; implied volatility is what option prices say the market expects in the future.
- The VIX is calculated from SPX option prices and expresses the market's expected 30-day volatility as an annualized percentage. It is a fear gauge because it is really the price tag on insurance.
- Convert the VIX to a 30-day expectation by dividing by √12: VIX 20 ≈ ±5.8% over 30 days — about ±348 points with SPX at 6,000.
- Regimes are rough conventions: calm ~12–15, normal ~15–20, stressed ~25–35, crisis 40+. They describe the present; they do not predict what comes next.
- You cannot buy the VIX. VIX futures and ETPs exist instead, and their prices are arranged in a term structure — usually contango (calm), sometimes backwardation (stress).
- Because of contango, products that hold front-month VIX futures sell low and buy high on every roll. Long-volatility ETPs have historically bled value over time and are short-term tools only.
- Expected move for any event ≈ IV × √(days ÷ 365). IV typically crushes right after earnings print, which can sink option buyers even when the stock moves their way.
- Professionals use the VIX for expectations, position sizing, judging option prices, and timing protection — never as a standalone buy/sell signal.

Check Yourself

1. What does the VIX measure, and in what units is it quoted?
2. The VIX is 20 and SPX is at 6,000. Roughly what 30-day range is the market pricing in?
3. What is the difference between historical volatility and implied volatility?
4. VIX futures show this month at 34, next month at 29, and the month after at 24. What is this shape called, and what does it suggest?
5. A stock at $200 has an IV of 50%. Using IV × √(days ÷ 365), what is the expected move over the next 7 days, in dollars?

Answers: 1) The market's expected volatility of the S&P 500 over the next 30 days, backed out of SPX option prices — quoted as an annualized percentage. 2) 20 ÷ √12 ≈ 5.8%; 5.8% of 6,000 ≈ 348 points, so roughly 5,650 to 6,350. 3) Historical volatility is the movement that actually happened over a past period; implied volatility is the future movement that current option prices are paying for. 4) Backwardation — front months priced above later months — which suggests stress: traders are paying up for immediate protection. 5) 50% × √(7 ÷ 365) ≈ 50% × 0.138 ≈ 6.9%, and 6.9% of $200 ≈ $14, so about ±$14 (roughly $186 to $214).

> **RULE**
> Use the VIX to set your expectations and your position size — never as a buy or sell signal by itself. It tells you the size of the waves, never the direction of the tide.



AA2-06

TRADING EARNINGS & IV CRUSH

Expected moves, the post-earnings volatility collapse, and three honest approaches.

Alpha Academy Level 2 · Team Alpha Trading

Trading Earnings & IV Crush

Four times a year, every public company has to stand up in front of the market and show its report card. Those announcements move stocks harder than almost anything else — 5%, 10%, sometimes 20% overnight. That is why beginners are drawn to them, and why beginners get hurt by them. The trap is not the move itself. The trap is **IV crush**: the collapse of an option's price the moment the report comes out, even when the stock moves the way you predicted.

You will learn what earnings season is, why option prices swell before a report and deflate after it, how to read the move the market is already expecting, and the three honest ways to approach an announcement. One of them is simply staying out — often the most professional choice on the board.

> **NOTE**
> This module is education, not financial advice. Earnings trades are among the riskiest a beginner can take: the outcome is close to a coin flip, and the loss can arrive overnight, while you sleep.

What Earnings Season Is

An **earnings report** is the official scorecard a public company must publish four times a year — once every **quarter** (one fourth of the year, three months). It shows how much money the company brought in (its **revenue**, meaning total sales), how much profit it kept (its **earnings**, the word the whole event is named after), and usually a **guidance** statement — management's forecast for the coming months.

Earnings season is the few weeks, four times a year, when most companies report in a rush — roughly mid-January, mid-April, mid-July, and mid-October, each lasting about four to six weeks, with a familiar company reporting almost every day.

Here is the part beginners miss: the stock does not react to whether the numbers are "good" or "bad" on their own. It reacts to whether they beat or miss **expectations** — what professional analysts had already predicted. Record profits can still mean a fall of 8% if the market expected even more; a reported loss can still mean a rise of 6% if everyone expected worse. You are not betting on the company. You are betting against a forecast thousands of professionals helped build — a much harder game than it looks.

Most reports come out before the market opens (9:30 AM Eastern) or after it closes (4:00 PM Eastern). Either way, the big move happens **while the market is closed to you** — you go to sleep holding one price and wake up holding a very different one. Hold that thought; it matters at gap risk.

Why Implied Volatility Rises Before the Report

You met **implied volatility (IV)** in AA-12. Quick refresher: IV is the options market's forecast of how much a stock might move, expressed as a percentage per year, and it is baked into every option's price. High IV means expensive options; low IV means cheap ones. Think of IV as a **fear-and-uncertainty price tag** — the less sure everyone is about what happens next, the more options cost, because sellers demand more for taking the risk.

An earnings report is a single moment when a huge chunk of uncertainty resolves all at once. In the days before it, nobody knows what the numbers will say; the stock could jump $8 or drop $8 by tomorrow morning. Option sellers look at that coin flip and say, "Insurance against a move like that is going to cost you." So IV climbs — sometimes for two weeks straight — and every option on the stock gets more

expensive, even if the stock itself barely moves.

Then the report prints. The numbers are public. The uncertainty is **gone**. Whether the news was wonderful or terrible no longer matters — the question has been answered, so the insurance is worth little. IV falls off a cliff, often losing a third to half its value in minutes, and every option on the stock gets cheaper at the same time.

That collapse is called **IV crush**. It happens after essentially every earnings report, win or lose, up or down. It is not a malfunction — it is the uncertainty price tag being ripped off the shelf because the uncertainty no longer exists.

A Worked Example: Right Direction, Losing Trade

This is the most important example in the module. Read it slowly.

A fictional company, **XYZ**, trades at **$100** the afternoon before its earnings report. IV is very high because the report is hours away. You are confident XYZ will beat expectations, so you buy a call:

- You buy **1 call contract**, strike price **$100**, expiring soon.
- The premium is **$3.00**. From AA-11: one contract controls 100 shares, so you pay $3.00 × 100 = **$300**.
- Your breakeven at expiration is strike + premium = $100 + $3.00 = **$103**.
- Notice: with the stock exactly at $100, the call has **zero intrinsic value** (intrinsic value is what an option is worth if exercised right now — a $100 call on a $100 stock is worth nothing that way). Your entire $3.00 is **time value** — the price of uncertainty. And uncertainty is exactly what is about to disappear.

Earnings come out that evening. They are good. The next morning XYZ opens at **$102 — up $2.00**. You were right about the company and the direction. You check your call, expecting a profit.

The call is now worth **$2.35**. Here is why:

- Intrinsic value: the stock is at $102, your strike is $100, so the call is worth $102 − $100 = **$2.00** if exercised. That part is real.
- Time value: IV has been crushed — say it fell from around 80% before the report to around 35% after. With the big question answered, almost nobody pays for uncertainty anymore, so time value shrank from $3.00 to about **$0.35**.
- Total: $2.00 + $0.35 = **$2.35** — $2.35 × 100 = **$235** for your contract.

You paid **$300**. Your call is worth **$235**. You **lost $65** — on a trade where the stock moved up $2 in exactly the direction you called.

Nothing went wrong with your analysis. You paid $3.00 for a ticket whose biggest ingredient was uncertainty, and the uncertainty expired before the stock did. To break even, XYZ needed to open at $103 or higher — the move the price had already demanded. Being right was not enough. You had to be **more right than the price already assumed**.

> **SETUP**
> Before a report, an at-the-money option is mostly time value — mostly uncertainty. After the report, that chunk of the price is gone. The stock must move far enough to replace, with real intrinsic value, everything the crush took away.

The Expected Move: What the Market Is Pricing In

How far does the stock have to move for an option buyer to win? The market publishes its guess: the **expected move** — the size of the swing, up or down, that option prices are implying for a given window.

The plainest way to read it uses a **straddle** — from AA-13: a call and a put bought at the **same strike price** (usually the strike closest to the stock's price, called **at-the-money**) with the **same expiration**. A straddle profits if the stock moves a lot in either direction, so its price is basically the market's bill for "how much movement is coming."

Back to XYZ at $100, with an expiration right after the report:

- The $100 call costs **$3.00**.
- The $100 put costs **$2.80**.
- Buy both and the straddle costs $3.00 + $2.80 = **$5.80** per share — **$580** for the pair of contracts.

That $5.80 is the expected move in dollars: options are priced as if XYZ will move **about $5.80** — roughly to **$105.80** up or **$94.20** down — by that expiration. Those are also the straddle's breakevens ($100 ± $5.80). In plain words: movement inside that range is already paid for. Only a move **bigger** than that makes the buyer money at expiration.

A quick formula gives the same forecast: expected move ≈ IV × √(days ÷ 365). At 60% IV with 7 days left: 60% × 0.138 ≈ **8.3%** — about $8.30 on a $100 stock. Now revisit the worked example: the expected move was roughly $5.80, and XYZ delivered only **$2.00** of it. The call buyer bought a $5.80-sized expectation and received a $2.00-sized move. Before any earnings trade, ask: **do I honestly expect a move bigger than the one already priced in — and what is my evidence?** If the answer is just a feeling, the price is telling you to stand aside.

Gap Risk: The Move You Cannot Stop Out Of

A **gap** is when a stock opens far away from where it closed, with no trading in between. Earnings are the number-one cause, because the report lands while the market is closed.

Why it matters: beginners lean on the **stop-loss order** (AA-04 and AA-19), which sells automatically if price falls to a level you choose. A stop works only if the stock actually **trades at** your stop price. In a gap, it never does.

Concrete example. You own 100 shares of XYZ at $100 — a $10,000 position — with a stop-loss at $97, telling yourself your risk is about $300. Earnings disappoint. XYZ opens at **$88**. Your stop triggers at the open and fills near $88, not $97, because $97 was never a price anyone traded at that day. Your actual loss: ($100 − $88) × 100 shares = **$1,200**, not $300. The stop did exactly what stop orders do. What failed was the assumption that an overnight, closed-market event can be controlled with a tool built for open-market hours. **No order placed in advance can protect a position from an earnings gap** — the only real protection is position size, covered below.

The Classic Trap: Cheap Out-of-the-Money Options

Here is the trade that has probably cost beginners more money than any other. The day before earnings, you spot a call with a strike well above the stock price — an **out-of-the-money** call — selling for just **$0.40**. "Only $40 a contract! If the stock pops, this could be worth $5.00!" It feels like a lottery ticket with good odds. It is a lottery ticket — and the odds are worse than they look, for three stacked reasons:

- The stock must move **a lot** just to reach your strike — then keep going past your breakeven.
- IV crush hits these options **hardest of all**. Their entire price is time value; there is no intrinsic value to fall back on. When the crush takes the time value, it takes nearly everything.
- They expire soon after the report, leaving no time for the stock to drift your way.

Run the numbers. XYZ at $100. You buy the **$110 call** for $0.40 — **$40**. Earnings are great, XYZ pops a strong 6% to **$106**, a big win for shareholders. Your call? Strike $110, stock $106 — worthless at expiration, and pennies the morning after with IV crushed. Your $40 becomes about $0. The stock rose 6% and you lost essentially **100%**.

> **RISK**
> Cheap out-of-the-money options bought before earnings are the classic beginner trap. They look inexpensive because they almost always expire worthless. The market is not giving you a bargain — it is selling you the low-probability outcome at a price that includes the earnings uncertainty, which evaporates the moment the report prints. And a small price is not a small risk: $40 lost completely is a 100% loss.

The Three Honest Approaches

There are exactly three approaches to earnings that Team Alpha considers honest. Everything else is gambling dressed up as strategy.

Approach 1: Stay Out Entirely

This is a real position, and for most Level 2 students it is the correct default. Watch the report, watch the reaction, write down what happened and what you **would** have done, and risk zero dollars. You are not paid to trade every event: four seasons a year times dozens of companies means hundreds of chances to learn for free. Ten reports observed with a notebook teach more about IV crush than one painful loss — and cost nothing.

Approach 2: Defined-Risk Spreads, Sized Small

If you do trade a report, use a structure whose maximum loss is known and fixed before you enter — a **spread** (AA-13) — never a naked option (naked means sold without protection; naked options carry large or unlimited risk, and earnings are the worst place for them).

Rebuild the XYZ idea as a spread. Instead of buying the $100 call alone for $3.00 ($300, all of it exposed to the crush), buy the $100 call for $3.00 **and sell the $105 call for $1.20**:

- Net cost (the **debit**) = $3.00 − $1.20 = **$1.80**, so **$180** per spread. That is your maximum possible loss — fixed and known.
- Maximum profit = the $5.00 width between the strikes − $1.80 debit = **$3.20**, or **$320**, if XYZ closes at $105 or above at expiration.
- Breakeven = $100 + $1.80 = **$101.80**.

Why does selling the second call help? The call you **sold** also loses value in the crush — and when an option you sold gets cheaper, that is money in your pocket. The crush still hurts the call you bought, but it helps the one you sold, so the effects partly cancel. The spread costs less, risks less, and shrugs off part of the crush — which is why experienced earnings traders reach for spreads instead of single options.

Approach 3: Trade After the Report

The report itself is a coin flip. But the hours and days **after** it are tradeable information. Once the numbers are out and the stock has gapped, uncertainty is gone, IV is back to normal (options fairly priced again), and the market reveals a real direction: does the stock hold its gap, keep pushing, or fade back? Trading the **reaction** — your normal setups, rules, and size — skips the coin flip and plays only the part where reading the chart actually works. Many professionals never trade the announcement at all. They trade what it **caused**.

Position Sizing for Binary Events

A **binary event** has two sharply different outcomes and nothing in between — heads the stock jumps, tails it dumps. Earnings are the textbook example, and your risk plan must shrink for them, because (per the gap section) your normal protections do not work overnight.

Recall the base rule from AA-19: risk about **1% of your account** per trade — **$100** on a $10,000 account. For a binary event, cut that **in half or more** until you have real experience: **0.5%, or $50**.

Now hold this module's trades up to that budget. The single $100 call cost $300 — **3%** of the account, three times the normal budget and six times the earnings budget. The $180 spread is better, but still overshoots a $50 event budget. The lesson most people refuse to learn: **if the smallest defined-risk version of a trade still risks more than your event budget allows, the correct trade is no trade.** That is Approach 1 choosing itself.

Two more sizing rules for events:

- **Size for the gap, not the plan.** With shares, assume the stock can open 10–15% against you, and check that loss against your budget before holding into a report.
- **One event at a time.** Three stocks reporting the same night is not diversification — it is three coin flips at once.

Pre-Earnings Checklist

Run every item before holding any position into a report. If you cannot check a box, that is your answer.

- _____ I know the exact date and time of the report (before open or after close), confirmed on the company's investor page or my broker's calendar.
- _____ I know the expected move (from the at-the-money straddle price) and have written it down: about $_____ on a $_____ stock.
- _____ I can state, in one sentence, why I expect a move **bigger** than the expected move — evidence, not hope.
- _____ My structure has a fixed maximum loss (a spread, or shares sized for a gap). Nothing naked, nothing undefined.
- _____ My maximum loss fits my event budget: $_____ (0.5% of my account or less while learning).
- _____ I know IV is elevated into the report and have planned for the crush when the numbers print.
- _____ My exit plan for each case — big win, small move, disaster gap — is written before the report, not improvised after.
- _____ I am not risking money I need, and one bad outcome will not change my life or my week.

Common Mistakes at This Level

- **Confusing "good earnings" with "stock goes up."** The stock trades against expectations, not against zero. Record profits can still produce a red day.
- **Buying options without comparing your expected move to the priced-in move.** If the straddle says $5.80 and you expect $3, you are paying for movement you do not believe is coming.
- **Reaching for the cheapest contract on the chain.** Cheap out-of-the-money options into earnings are cheap because they nearly always expire worthless — and the crush hits them hardest.
- **Trusting a stop-loss to protect an overnight position.** Stops cannot fill at prices the stock never traded at. Gaps jump clean over them.
- **Trading full size because "this one is a sure thing."** There are no sure things in a binary event. Traders who survive ten earnings seasons sized every report like it could go against them — because eventually, one does.
- **Trading every big name in the same week.** Earnings season offers a report every night. Selectivity is the skill; volume is the trap.

Chapter Summary

- Earnings season is the four-to-six-week stretch, four times a year, when companies publish their quarterly report cards — revenue, earnings, and guidance.
- Stocks react to results **versus expectations**, not to whether the numbers look good on their own.
- IV rises into a report because uncertainty is expensive, and **crushes** the moment it prints because the uncertainty is gone — win or lose.
- The crush can beat a correct forecast: XYZ rose $2 and the $3.00 call still lost $65, because its time value collapsed from $3.00 to $0.35.
- The **expected move** is readable from the at-the-money straddle price; buyers only profit at expiration when the actual move beats it.
- Earnings gaps jump over stop-loss orders, so overnight event risk is controlled by position size, not orders.
- The three honest approaches: stay out, use defined-risk spreads sized small, or trade the reaction after the report.
- Binary events get half your normal risk budget or less — and if even the smallest defined-risk trade is too big, the right trade is no trade.

Check Yourself

1. Why does implied volatility rise in the days before an earnings report, and why does it fall sharply the moment the report comes out?
2. In the worked example, XYZ rose from $100 to $102 after good earnings, yet the $100 call bought for $3.00 lost $65. Where did the money go?
3. The $100 call costs $3.00 and the $100 put costs $2.80 on XYZ. What move is the market pricing in, and what are the straddle's two breakeven prices?
4. Why does a stop-loss order fail to protect a stock position held through an earnings report?
5. Name the three honest approaches to an earnings announcement, and the sizing rule that goes with them.

Answers: 1) Uncertainty peaks before the report, so sellers charge more and IV climbs; once the numbers are public the uncertainty is gone, so IV collapses — IV crush. 2) The whole $3.00 premium was time value. After the report the call held $2.00 of intrinsic value ($102 stock vs. $100 strike) but only about $0.35 of time value after the crush — worth $2.35, or $235 against $300 paid. 3) The straddle costs $5.80, so the expected move is about $5.80 either way; breakevens are $105.80 and $94.20. 4) The report lands while the market is closed, so the stock can gap straight past the stop price without trading there; the stop fills near the open instead. 5) Stay out entirely; trade defined-risk spreads; or trade the reaction after the report — sizing at half your normal budget or less (about 0.5% of the account while learning), and skipping any trade whose smallest defined-risk version is still too big.

> **RULE**
> Earnings are a coin flip with a price tag. The market charges you for the flip through IV, then takes the charge back through the crush. Trade the report small and defined, trade the reaction with your normal rules — or stand aside and let the season teach you for free.



AA2-07

CALENDARS & DIAGONALS

Trading time itself — spreads that profit from the decay difference between months.

Alpha Academy Level 2 · Team Alpha Trading

Calendar & Diagonal Spreads: Trading Time Itself

In Level 1 you learned that every option is melting. Time decay — **theta**, the amount of value an option loses each day just because time passed — quietly takes money from option buyers and hands it to option sellers. You also learned that this melting speeds up as expiration gets close.

This module teaches you to trade the melting itself. A **calendar spread** is a trade built from two options on the same stock, at the same strike price, with two different expiration dates: you sell the one that expires sooner and buy the one that expires later. Because the sooner option melts faster than the later one, a quiet stock can pay you for doing nothing but waiting. Its close cousin, the **diagonal spread**, changes the strike as well as the date — and gives you the famous "poor man's covered call," a way to imitate owning 100 shares for a fraction of the cost.

By the end of this module you will be able to build a calendar spread, state its maximum loss before you open it, explain exactly what you want the stock to do (almost nothing), build a poor man's covered call with real numbers, and name the three risks that bite calendar traders most often.

> **NOTE**
> This is education, not financial advice. Calendar and diagonal spreads have defined, capped risk when built the way this module teaches — but capped is not zero. Practice these in a paper account (a practice account with fake money) until the mechanics are boring before using real money.

Why Time Decay Is Not Even: The Theta Curve

Imagine two ice cubes on a counter. One is small, one is large. They both melt, but the small one disappears first — and near the end, it seems to vanish all at once. Options melt the same way, and the "size" of the cube is the time left until expiration.

An option with six months left loses its time value slowly, a little each day. An option with six days left loses time value frighteningly fast. In the final month of an option's life, each passing day takes a bigger bite than the day before. Traders call this shape the **theta curve**: decay starts as a gentle slope and ends as a cliff.

Here is the key insight of this whole module. If you **sell** the option standing near the cliff (the one expiring soon) and **buy** the option standing on the gentle slope (the one expiring later), the position you sold melts faster than the position you bought. The difference lands in your pocket — if the stock cooperates by sitting still.

A quick picture with numbers. Suppose the front-month call you sold has $2.00 of time value and loses about $0.45 of it over one quiet week. The back-month call you bought has $3.10 of time value and loses only about $0.25 over that same week. Your short leg gained you $45 (0.45 × 100 shares), your long leg cost you $25 (0.25 × 100 shares), and you are ahead roughly $20 for a week in which the stock did nothing at all. That is the entire engine of the calendar spread: **not direction, not prediction — the difference between two melting speeds.**

The Calendar Spread: Structure

> **SETUP**
> A calendar spread = sell 1 option expiring sooner + buy 1 option expiring later, same stock, same strike price, same type (both calls or both puts). You pay a net debit (the later option costs more, because it has more time). Maximum loss = the debit you paid.

Why does the later option cost more? Because more time means more chance for the stock to move — time is literally what you are buying. So a calendar always starts as a debit: you pay more for the long leg than you collect for the short leg.

A Fully Worked Calendar

Stock ABC is trading at **$100**. Nothing big is expected. You decide the stock will likely sit near $100 for the next month.

- **Sell** 1 ABC $100 call, expiring in 30 days, at a premium of **$2.00** → you collect $2.00 × 100 = **$200**
- **Buy** 1 ABC $100 call, expiring in 60 days, at a premium of **$3.10** → you pay $3.10 × 100 = **$310**
- **Net debit** = $310 − $200 = **$110**. This is your maximum loss. You can never lose more than the $110 you paid to open the trade (as long as you close or manage the position at or before the front expiration — more on that in the risks section).

Now fast-forward 30 days to the front expiration, and look at three possible endings:

- **ABC sits at $100 (the dream).** The front call expires worthless — you keep the full $200. Your back call still has 30 days of life left and is worth, say, **$2.30** ($230). Your position is worth $230 against the $110 you paid: **about +$120 profit**. This is close to the best a calendar can do.
- **ABC drops to $90.** The front call expires worthless (good), but your back call is now far from the money with only 30 days left — worth perhaps **$0.35** ($35). $35 − $110 paid = **about −$75**. Most of your debit is gone.
- **ABC runs to $110.** The front call you sold is now worth $10.00 (it is $10 in the money), so closing it costs $1,000. Your back call is worth its $10.00 of intrinsic value (the built-in value from being in the money) plus roughly $0.60 of remaining time value = $10.60 ($1,060). Selling it and buying back the front nets you $1,060 − $1,000 = $60, minus the $110 you paid: **about −$50**.

Read those three endings again. The calendar wins in the middle and loses on both edges. It is a bet that the stock stays **near the strike** — the opposite of most beginner trades, which bet on a big move.

What You Want to Happen

A calendar trader wants a very specific, slightly boring future:

- **The stock parks near the strike price** until the front option expires. Every day it sits there, your short leg melts faster than your long leg.
- **The front option expires worthless or nearly worthless.** Then you still own the back-month option, and you can sell another front option against it and collect again — one long option can host several short ones in a row.
- **Implied volatility of the back month rising helps you.** Implied volatility (IV) is the market's expectation of future movement, baked into option prices (AA-12). Because you own the longer-dated option, and longer-dated options react more to IV changes, a rise in IV lifts your back-month option more than it lifts

the front one you sold. Rising fear, calmly parked stock price: a good week for a calendar.

Notice what is *not* on that list: the stock going up, or the stock going down. Direction barely matters. Distance from the strike is what hurts.

When Calendars Fail

Calendars fail in predictable ways:

- **The stock makes a big move, either direction.** As the worked example showed, a run to $110 or a drop to $90 both bleed the position. You bought a "stay here" ticket; the stock left.
- **Back-month IV collapses.** If the back month's IV was pumped up (for example, an earnings report is scheduled in the back month) and then crashes after the news, your long option can lose value faster than the theta difference earns it back.
- **You hold past the front expiration without a plan.** Once the front option expires, you are simply long a single option — a different trade with different risk. Decide before you open the calendar what you will do at that moment: close, or sell a new front option.

Diagonal Spreads: One More Twist

A **diagonal spread** changes two things instead of one: the expiration date **and** the strike price. Sell a nearer option at one strike, buy a later option at a different strike. The most famous diagonal is the poor man's covered call.

The Poor Man's Covered Call

In AA-13 you learned the covered call: own 100 shares, sell a call against them, collect premium. Its problem is the price of admission. Owning 100 shares of a $100 stock costs **$10,000**. The poor man's covered call replaces the shares with a cheap stand-in: a **LEAPS** option — a long-dated option with more than a year until expiration — bought deep in the money (strike well below the current price), so it behaves almost like the stock itself.

> **SETUP**
> Poor man's covered call = buy 1 deep in-the-money LEAPS call (a year or more out) + sell 1 short-term call at a higher strike, month after month. The LEAPS plays the role of the 100 shares.

Worked example, stock XYZ at **$100**:

- **Buy** 1 XYZ $80 call LEAPS, about two years until expiration, at **$26.00** → you pay 26.00 × 100 = **$2,600**. (Of that $26, $20 is intrinsic value — the stock is $20 above the strike — and $6 is time value.)
- **Sell** 1 XYZ $105 call, expiring in 30 days, at **$1.50** → you collect **$150**.
- **Net cost to open** = $2,600 − $150 = **$2,450** — instead of $10,000 for the shares.

Now the months play out like a regular covered call. If XYZ stays at or below $105 for the month, the short call expires worthless, you keep the $150, and you sell the next month's call. If XYZ finishes at $104, your LEAPS is worth noticeably more than you paid (the stock rose $4, and a deep in-the-money call captures most of that), plus you kept the $150.

Be honest about the risks, because they are real:

- **If XYZ collapses**, the LEAPS collapses with it. Below $80 the LEAPS holds only time value, and most of your $2,450 can evaporate. You risked less than the shareholder's $10,000, but $2,450 is still serious

money.

- **If XYZ rockets through $105**, your short call will likely be exercised and your LEAPS "covers" it — but your profit is capped near the $25 gap between the strikes ($105 – $80), plus premiums collected. You will not ride a runaway winner the way a shareholder does.
- **The LEAPS is still an option.** It has an expiration date and it decays — slowly, but it decays. Shares never expire. This is a lease on the stock's behavior, not ownership.

The Three Risks That Bite

- **Early assignment on the short leg.** American-style options can be exercised by their owner at any time. If your short call is in the money right before the stock's ex-dividend date (the date by which you must own the stock to receive its next dividend payment), it may be exercised early. Suddenly you are short 100 shares and still holding your back-month option. Your broker will notify you — do not ignore that message. Know, before you open any spread, how your broker handles assignment and what it will cost you.
- **Earnings inside the front month.** An earnings report scheduled before your front option expires is a double hazard: the stock can jump far from your strike overnight, and the front month's IV — pumped up before the report — crashes right after it. Many calendar traders simply refuse to hold a calendar across an earnings date in the front month.
- **Liquidity. Liquidity** means how easily you can trade something without moving its price. Far-dated and far-away options often trade with wide bid-ask spreads (the gap between what buyers offer and sellers ask). With two legs, you pay that gap twice — entering and exiting. A calendar that looks $20 profitable on paper can be unprofitable after two wide spreads. Use limit orders (orders that only fill at your price or better) and check the spread before you enter.

Common Mistakes at This Level

- **Opening a calendar and then rooting for a big move.** The trade profits from stillness. If you secretly want a rally, you bought the wrong structure.
- **Picking a strike far from the current price.** The stock must finish near the strike. Centers win; wishes lose.
- **Ignoring the earnings calendar.** One overnight gap through your strike can erase a month of careful theta collecting.
- **Letting the front option expire and forgetting the back one.** An unmanaged leftover long option is a new, unintended trade.
- **Paying wide spreads without limit orders.** Entering at market prices in sleepy back-month options quietly donates money to the market maker (the firm that quotes both sides of an option's price).
- **Believing "max loss = debit" means "no management needed."** The cap protects you at the front expiration if you act. Assignment and neglect can create positions you never planned.

Chapter Summary

- A calendar spread sells the sooner expiration and buys the later one at the same strike — a bet on the difference in melting speed, not on direction.
- Theta decay accelerates into expiration (the theta curve), so the front option loses time value faster than the back option.
- Maximum loss on a calendar = the net debit paid. In the worked example: $310 − $200 = $110.
- The ideal outcome: the stock parks at the strike, the front option expires worthless, and the back option still holds most of its value. Big moves either way, and back-month IV collapses, are what hurt.
- A rising back-month IV helps a calendar, because the long back option reacts more to IV than the short front one.
- A diagonal spread differs in strike *and* expiration. The poor man's covered call uses a deep in-the-money LEAPS (example cost $2,600) to stand in for 100 shares (example cost $10,000), then sells monthly calls against it.
- The three risks that bite: early assignment on the short leg, an earnings report inside the front month, and poor liquidity in the back month.

Check Yourself

1. What are the two ingredients that make a spread a *calendar* spread?
2. In the worked example, what was the net debit, and what is the maximum possible loss?
3. Why does a calendar make money during a week when the stock does absolutely nothing?
4. What happens to the worked-example calendar if ABC runs from $100 to $110 by the front expiration, and roughly how much does it lose?
5. In a poor man's covered call, what replaces the 100 shares, and what did it cost in the example?

Answers: 1) Two options on the same stock with the same strike and the same type, but different expirations — you sell the sooner one and buy the later one. 2) $110 ($310 paid for the back call minus $200 collected for the front call); the maximum loss is that same $110 debit. 3) Because of the theta curve: the front option you sold decays faster than the back option you bought, so the spread gains value from time alone. 4) It loses — the short front call is $10 in the money and the back call cannot gain enough to offset it; the example ends about −$50, on its way toward the −$110 maximum if the stock runs further. 5) A deep in-the-money LEAPS call (over a year to expiration); in the example, the $80-strike LEAPS cost $2,600 versus $10,000 for the shares.

> **RULE**
> A calendar spread is a bet that the stock stays near your strike while time does the work — if you cannot name the strike, the front expiration date, and your debit, you are not ready to open one.



AA2-08

BUTTERFLIES & STRUCTURES

Precision pin bets with defined risk — and the honest danger of ratio spreads.

Alpha Academy Level 2 · Team Alpha Trading

Butterflies & Advanced Structures: Precision Bets

Every trade in Level 1 answered a broad question: up or down, big move or small. This module is about a sharper question: can you name the exact price a stock will be sitting at on one exact day? A **butterfly spread** is the tool built for that question. It combines three strike prices into one position that makes its maximum profit if the stock finishes precisely at the middle strike at expiration — and is content to lose a small, fixed amount if it doesn't.

That precision is seductive, and this module will be honest with you about it: the target is small, the perfect outcome is rare, and the most dangerous structure in this family — the ratio spread — can produce losses with **no limit at all**. By the end you will be able to build a long call butterfly with real numbers, compute its maximum profit, maximum loss, and both breakevens before opening it, explain iron and broken-wing butterflies, and state exactly why advanced structures are not automatically better trades.

> **NOTE**
> This is education, not financial advice. Butterflies as taught here are defined-risk (the most you can lose is known on day one). Ratio spreads are NOT defined-risk, and this module covers them mainly so you can recognize and respect the danger.

The Long Call Butterfly

> **SETUP**
> A long call butterfly = buy 1 call at a lower strike, sell 2 calls at a middle strike, buy 1 call at an upper strike. All three strikes are the same distance apart, all share one expiration date. The middle strike is your target — the exact price you are betting the stock lands on.

Think of it as two vertical spreads (the buy-one/sell-one combinations from AA-13) glued together at the middle strike: a bull call spread below, a bear call spread above. The two spreads share the middle strike, which is why you sell that strike twice.

A Fully Worked Butterfly

Stock ABC is at **$100**, and your view is: "ABC will be near $100 when these options expire in 30 days." You build a butterfly with strikes $95 / $100 / $105:

- **Buy** 1 ABC $95 call at **$6.50** → pay $6.50 × 100 = **$650**
- **Sell** 2 ABC $100 calls at **$3.50** each → collect $3.50 × 2 × 100 = **$700**
- **Buy** 1 ABC $105 call at **$1.60** → pay $1.60 × 100 = **$160**
- **Net debit** = $650 + $160 − $700 = **$110** (per share: $1.10)

At expiration, the position's fate depends entirely on where ABC lands:

- **Maximum loss = the $110 debit.** If ABC finishes at or below $95, every call expires worthless. If it finishes at or above $105, the gains and losses of the four legs cancel each other exactly. Either way, you lose only what you paid.
- **Maximum profit happens at exactly $100.** The $95 call is worth $5.00 ($500); both $100 calls and the $105 call are worth $0. Position value $500, minus your $110 debit = **$390 profit**. (Shortcut formula: strike width − debit = $5.00 − $1.10 = $3.90, × 100 = $390.)

- **Breakevens:** lower breakeven = lower strike + debit per share = $95 + $1.10 = **$96.10**. Upper breakeven = upper strike − debit per share = $105 − $1.10 = **$103.90**. Between $96.10 and $103.90 you make something; outside, you lose something; the loss never exceeds $110.

One midpoint check, so the shape sinks in: if ABC finishes at **$102**, the $95 call is worth $7 ($700), the two $100 calls cost you $2 each to close (−$400), the $105 call is worthless. Position value $300, minus $110 = **+$190**. The profit tent peaks at $100 and slopes down both sides — that tent shape is the butterfly's fingerprint.

Now the honesty paragraph. The maximum profit requires a bullseye: one exact price on one exact day. Stocks rarely cooperate. Most butterflies end somewhere on the tent's slopes — a modest gain, a modest loss, or the full $110 gone. Professional traders who use them treat them as small, planned, probability trades, not as jackpots.

The Iron Butterfly

The **iron butterfly** builds the same tent shape using puts *and* calls, and it is opened for a **credit** (money collected up front) instead of a debit. You sell a straddle — a call and a put at the same middle strike — and buy protective options further out on both sides, called the **wings**.

Using ABC at $100 with the same $5 spacing: sell the $100 call at $3.50 and the $100 put at $3.30 (collect $680), then buy the $105 call at $1.60 and the $95 put at $1.50 (pay $310). **Net credit = $680 − $310 = $370.**

- **Maximum profit = the $370 credit**, kept in full only if ABC finishes at exactly $100.
- **Maximum loss = wing width − credit** = $5.00 − $3.70 = $1.30 per share = **$130**, reached if ABC finishes at or beyond either wing.
- **Breakevens = $100 ± $3.70 → $96.30** and **$103.70**.

Same tent, same rarity of a perfect pin — just financed as a credit, and usually managed with an exit well before expiration day.

The Broken-Wing Butterfly

A **broken-wing butterfly** makes one side of the tent wider than the other: the strikes are no longer evenly spaced. For example, instead of $95 / $100 / $105, use $95 / $100 / $110 — buy 1 of the $95 calls, sell 2 of the $100 calls, buy 1 of the $110 calls, which (being further away) is cheaper, say $0.70. The debit drops: $650 − $700 + $70 = just **$20**.

Why do traders break the wing? To shrink — or with a credit, eliminate — the risk on one side. In this example, if ABC finishes at or below $95, you lose only the $20. But the tent's broken side hides the cost: if ABC rockets past everything, the loss grows beyond a normal butterfly's. At $115 the legs are worth $20 − (2 × $15) + $5 = −$5 per share: **−$500, plus your $20 debit = −$520 maximum loss**. The broken wing did not remove risk; it *moved* the risk to the wide side and made it bigger there. Broken-wing structures are still defined-risk — that −$520 is a hard cap — but anyone who calls them "no-risk trades" is selling you something.

Ratio Spreads: The Dangerous Cousin

A **ratio spread** buys one option and sells *more* than one against it — for example, buy 1 call and sell 2 calls at a higher strike (a "1×2"). It looks like a spread. It is not a safe one, because the extra sold option has nothing covering it. It is **naked** — sold with no offsetting position — and a naked call's risk is unlimited, because a stock's price has no ceiling.

> **RISK**
> In a 1×2 ratio spread, the extra short option is naked. Every dollar the stock rises past the upper strike costs you $100 per extra contract, with no limit, and your broker can demand more margin (collateral) or close the position at the worst moment. This is a structure that has destroyed real accounts.

Watch the trap snap shut with numbers. ABC is at **$100**. You buy 1 ABC $100 call at $3.50 and sell 2 ABC $105 calls at $1.90 each — collecting a small net credit of (2 × $1.90) − $3.50 = **$0.30** ($30).

- ABC finishes at **$105**: your long call is worth $5 ($500), both short calls expire worthless. You keep $500 + $30 credit = **$530**. This is the outcome the trade was sold on.
- ABC finishes at **$115**: long call worth $15 ($1,500); two short calls worth $10 each (−$2,000). Net: **−$470** after the credit.
- ABC finishes at **$125**: long worth $25 ($2,500); shorts worth $20 each (−$4,000). Net: **−$1,470**.
- ABC finishes at **$145**: long worth $45 ($4,500); shorts worth $40 each (−$8,000). Net: **−$3,470** — and still falling $100 for every further $1 rise, forever.

Compare the shapes. The butterfly's worst case was known on day one: $110. The ratio spread's worst case does not exist. One good-looking outcome ($530 at $105) disguises an open-ended liability. If a structure's loss column has no bottom, it is not a strategy — it is a debt waiting for a date.

When Pin Bets Make Sense — Rarely, and Small

To be fair to the butterfly: there are moments when a defined-risk pin bet is a reasonable, small speculation. A stock that has been pinned in a tight range for weeks, an expiration week with no earnings or major news scheduled, a trader who sizes the position so the full debit is an acceptable, shrug-worthy loss. The rules that keep it sane:

- **Defined risk only.** Debit known, maximum loss known, before entry.
- **Position size like a lottery ticket** — because the bullseye outcome is genuinely unlikely.
- **An exit plan before expiration day.** Near the middle strike on expiration day, prices whipsaw around the strike and your short legs face pin risk (the danger that you cannot know until Monday whether you were assigned). Many butterfly traders close the whole position early rather than ride it into that chaos.

If those conditions are not all true, the honest answer is to skip the trade.

Why Advanced Is Not Better

It is tempting to believe the four-leg structure must be smarter than the one-leg trade. It is not. It is simply more specific — and specificity has costs:

- **More legs, more friction.** Every leg crosses a bid-ask spread and may carry its own fee. A butterfly pays that toll four times on the way in and up to four times on the way out.

- **Harder to exit.** You are not selling one option; you are unwinding a machine, ideally all legs together at one net price, in a market that may not be eager to take the other side.
- **More ways to be wrong.** A simple bought call needs one thing: a move up. A butterfly needs a move to one price, by one date, that then *stops*. Each added condition is another way to lose.
- **Assignment and pin complications** cluster at the middle strike, exactly where your short legs live.

The best traders are not the ones with the most legs. They are the ones whose structure matches their actual forecast at a cost they can survive being wrong about.

The Family at a Glance

Structure	Opened For	Max Loss	Wins When
Long call butterfly	$110 debit	$110	Stock pins the middle strike
Iron butterfly	$370 credit	$130	Same pin, paid up front
Broken-wing butterfly	$20 debit	$520	Pin, with risk shifted to the wide side
1×2 ratio spread	$30 credit	**Unlimited**	Stock finishes at the short strike

Study the Max Loss column until it bores you. The first three rows can hurt you by a known amount and no more — that is what "defined risk" means, and it is the only kind of risk this Academy teaches you to take. The fourth row looks like its cousins and opens for a friendly little credit, but its loss column has no number in it. In trading, the trades that end accounts are rarely the ones with a scary entry. They are the ones whose worst case was never written down because it could not be.

One more habit separates careful butterfly traders from hopeful ones: they decide the exit before they enter. A common plan is to close the position if it reaches a set fraction of its maximum profit — for example, half of the $390 in our worked example — rather than waiting weeks for the last dollars near expiration, when the pin risk and whipsaw danger are highest. Giving up the final slice of theoretical profit in exchange for certainty is not timid. It is the entire philosophy of defined-risk trading in one sentence: take the certain, survivable outcome over the perfect, fragile one.

Common Mistakes at This Level

- **Falling in love with the maximum profit number.** $390 in the example requires a perfect pin at $100. Plan around the tent's slopes, not its peak.
- **Sizing a butterfly like a normal trade.** The probability of the best outcome is small; size it like the speculation it is.
- **Holding into expiration day at the middle strike.** Pin risk and assignment surprises live there. Have an exit rule and follow it.
- **Confusing a ratio spread with a spread.** If one of your short options is naked, the risk is undefined no matter what the position is nicknamed.
- **Trusting "broken-wing = free trade" claims.** Broken wings move risk and can enlarge it on the wide side — in the example, to $520 versus the plain butterfly's $110.

- **Opening four-leg trades in illiquid options.** Wide spreads on four legs can make a theoretically good trade practically untradable.

Chapter Summary

- A long call butterfly buys 1 lower call, sells 2 middle calls, buys 1 upper call — one expiration, evenly spaced strikes, opened for a debit.
- In the worked example ($95/$100/$105, debit $1.10): maximum loss = $110; maximum profit = $390 at exactly $100; breakevens $96.10 and $103.90.
- The profit shape is a tent peaking at the middle strike; the perfect pin is rare, and most outcomes land on the slopes.
- An iron butterfly sells a straddle at the middle strike and buys wings for protection; it opens for a credit (example $370), with maximum loss = wing width − credit ($130 in the example).
- A broken-wing butterfly uses uneven spacing to cut risk on one side — but enlarges it on the wide side (example max loss −$520). Risk is moved, never removed.
- A 1×2 ratio spread leaves one short option naked, so losses are unlimited — the example loses $1,470 at $125 and keeps falling.
- Pin-type bets make sense rarely, small, defined-risk only, with an early exit plan.
- Advanced structures cost more in spreads, fees, and complexity. Complexity is a cost, not an edge.

Check Yourself

1. List the four legs of the long call butterfly in the example, with strikes.
2. What is the maximum profit of that butterfly, at what stock price, and how is it calculated?
3. What are its two breakeven prices?
4. An iron butterfly is opened for a $3.70 credit with $5-wide wings, like the example. What is the maximum loss in dollars?
5. Why can a 1×2 ratio spread lose more money than any butterfly in this module?

Answers: 1) Buy 1 $95 call, sell 2 $100 calls, buy 1 $105 call — all the same expiration. 2) $390, at exactly $100 at expiration: strike width $5.00 minus the $1.10 debit, times 100 shares = $390 (equivalently, the position is worth $500 against the $110 paid). 3) $96.10 (lower strike + debit) and $103.90 (upper strike − debit). 4) Wing width − credit = $5.00 − $3.70 = $1.30 per share = $130. 5) Because one of its two short calls is naked — nothing covers it — so losses grow $100 for every $1 the stock rises past the short strike, with no cap, while a butterfly's loss is capped at its debit.

> **RULE**
> Complexity is a cost, not an edge — never open a structure whose maximum loss you cannot state in one sentence before you enter it.



AA2-09

PORTFOLIO GREEKS & HEDGING

Seeing your whole account at once — net delta, theta, vega, and how to insure it.

Alpha Academy Level 2 · Team Alpha Trading

Portfolio Greeks & Hedging: Seeing Your Whole Account at Once

In Level 1 you learned the Greeks one position at a time — delta, how much one option moves with its stock; theta, the daily rent on one contract. That was looking at your account through a keyhole.

This module opens the door. You will learn to add up the Greeks across **every position you own**: how much you gain or lose if the market rises $1, how much time decay costs or pays you each day, and how exposed you are if fear suddenly spikes. Then you will learn the main tool traders use to protect the whole account at once — buying index puts as insurance — with the honest math of what that insurance costs. Afterward, you will be able to answer three questions in under a minute: *Which way am I betting, how big is the bet, and what happens to me in a crash?*

> **NOTE**
> Portfolio Greeks are estimates, not promises. They are calculated from current prices, and they shift as prices move and time passes — a speedometer reading: true right now, worth checking again after the road changes. This module is education only, not financial advice.

From One Position to the Whole Account

Every Greek you learned in AA-12 — delta, theta, vega — can be added up across your positions. The sum is your **net** Greek: **net delta** is the deltas of everything you own added together, and the same goes for **net theta** (daily time decay) and **net vega** (volatility exposure).

Why bother? Because positions interact. A stock you own might gain when the market rises while a put you bought loses — and what matters is the *total*. Traders who only look at positions one at a time are constantly surprised by their own accounts; traders who look at the net numbers rarely are. Your broker usually shows these totals (look for a "position Greeks" or "portfolio" view) — and if it does not, you can add them by hand, exactly as this module shows.

Net Delta: How Many Shares You Really Own

Delta for a single option tells you its share equivalent. One contract with delta 0.40 behaves like 40 shares, because 0.40 × 100 shares = 40. Net delta does the same thing for your **whole account in one stock**: it tells you how many shares of exposure you really have, no matter how that exposure is packaged.

Here is a worked example. Say you hold four positions, all in the same fictional stock, **XYZ**, trading at $50:

Position	The math	Delta
200 shares of XYZ	200 × 1.00	+200
3 XYZ call contracts (delta 0.40 each)	3 × 0.40 × 100	+120
2 XYZ put contracts you bought (delta −0.30 each)	2 × −0.30 × 100	−60
1 XYZ call contract you sold (delta 0.25)	1 × −0.25 × 100	−25
Total		**+235**

Step by step: shares have delta 1 each, so 200 shares = +200. Each call contract adds 0.40 × 100 = +40, and three add +120. Each bought put *subtracts* 30, because puts gain when the stock falls. The call you **sold** counts negative — selling an option flips its Greeks to the other side.

Your net delta is **+235**. In dollars: if XYZ rises $1, your whole package gains about $235. If XYZ falls $2, you lose about $470. You do not own 235 shares — but your money behaves exactly as if you did.

One more number makes this real. **Delta dollars** = net delta × stock price = 235 × $50 = **$11,750**: your true directional exposure — the size of the bet — even if the cash value of your positions looks much smaller. Options let a little cash control a lot of exposure; net delta is how you see the real size.

> **RULE**
> Before you add any new position, ask what it does to your net delta. If you cannot answer, you do not know how big your bet already is.

Beta-Weighted Delta: Translating Everything Into SPY

Net delta works stock by stock. But what if you own five *different* stocks? Adding "+235 of XYZ" to "+80 of ABC" is adding apples to oranges — a $1 move in a sleepy utility stock and a $1 move in a wild tech stock are not the same event.

The fix is **beta-weighted delta**. **Beta** is a number comparing how jumpy a stock is versus the overall market: 1.0 means it tends to move about like the market, 2.0 about twice as much, 0.5 about half as much. Most brokers show each stock's beta next to its quote.

Beta-weighting translates every position into one common language: **"how many shares of SPY does this behave like?"** SPY is the ETF that tracks the S&P 500 — the market itself. The recipe, in plain words:

- Take the position's net delta in its own stock.
- Multiply by (stock price ÷ SPY price) — share counts are only fair once prices are equalized.
- Multiply by the stock's beta — its jumpiness adjustment.

Worked example. You hold a position in **ABC**, a fast-moving tech stock at $200, with beta 2.0. Its net delta is +40. SPY trades at $500.

- Step 1: 40 × ($200 ÷ $500) = 40 × 0.4 = 16.
- Step 2: 16 × 2.0 = **+32**.

Your ABC position behaves like owning **32 shares of SPY**. Check it the common-sense way: if SPY drops $10 (a 2% market drop), a beta-2.0 stock tends to drop about 4% — $8 on a $200 stock — and 40 × $8 = $320 lost. Beta-weighted: 32 × $10 = $320. Same answer, one common yardstick.

Do this for every position, add the results, and you get **one number for your whole account**: your total market bet, in SPY shares. Multiply by SPY's price and you have your true market exposure in dollars — the number that tells you what a bad market week actually does to you.

Net Theta: Your Daily Rent Bill

In Level 1 you learned that a bought option charges you rent every day — theta — while a sold option *collects* that rent. Net theta adds it all up: it is what time itself pays you, or charges you, every single day, even if nothing moves.

Using positions like the ones above: your 3 long calls (theta −0.05 each) cost 0.05 × 100 = $5 a day per contract, or **−$15 a day**. Your 2 long puts (theta −0.04) cost $4 a day each, or **−$8 a day**. The call you sold (theta +0.06) *pays* you **+$6 a day**.

Net theta = −15 − 8 + 6 = **−$17 a day**. Your account pays $17 a day in rent — about $85 over a 5-day week, roughly $340 over a 20-trading-day month, if prices sit still and nothing changes. Time is not free for option buyers; net theta is the meter running.

Neither sign is "good" or "bad" by itself. A net buyer *expects* negative theta — the price of big upside with limited risk. A net seller expects positive theta and accepts bigger risk in exchange. The mistake is not knowing which one you are.

Net Vega: Your Bet on Fear

Vega measures sensitivity to **implied volatility (IV)** — the fear-and-excitement gauge built into option prices, which you met in AA-12. It tells you roughly how much a position gains or loses if IV changes by 1 point (say, IV going from 20% to 21%).

Long options have positive vega: when fear spikes and IV jumps, your options get more expensive even if the stock has not moved yet. Short options have negative vega: a fear spike makes the options you sold cost more to buy back.

Worked example. Say your account's net vega is **+$120**. IV rises 5 points during a scary week: you gain roughly 120 × 5 = **+$600**, before anything else changes. After an earnings report, IV collapses 5 points in the famous "IV crush": you lose roughly **−$600**, even if you guessed the stock's direction right.

Now flip it. A trader who mostly *sells* options might run net vega of **−$200**. A 5-point fear spike costs them roughly 200 × 5 = **−$1,000**. This is why net sellers respect vega: calm weeks pay them steadily, and one violent week can hand back months of rent. Net vega tells you, in advance, which kind of week you are built for.

The Concentration Trap: Five Positions, One Bet

Greeks are not the only hidden total. The other is **concentration** — how much of your money rides on one idea, even when it is spread across many tickers.

Picture an account holding: shares of a big chip-maker, calls on the same chip-maker, a semiconductor ETF, calls on a tech-heavy index fund, and shares of a second chip company. That *looks* like five positions. It is really **one bet**: "tech, and especially chips, go up." With $10,000 in each — $50,000 riding on one theme — a 10% drop in that theme costs about **$5,000**, not the $1,000 a truly separate position would suggest.

The test is simple: pick a bad headline for your biggest theme and ask, "How many of my positions lose money on this news?" If the answer is "almost all of them," you are not diversified — you own one bet in five costumes. Real diversification means positions that do not all move together: different industries, different kinds of assets, some that can even gain when others fall (like the index puts in the next section).

> **RISK**
> Concentration feels wonderful on the way up — everything wins at once. That is what makes it dangerous: the same togetherness applies on the way down, and declines are usually faster than climbs.

Hedging With Index Puts: Insurance for Your Account

A **hedge** is a position you take *to lose money on purpose in good times*, so that it gains money in bad times and softens the blow. The classic account-level hedge is buying **put options on a market index ETF** — usually SPY. If the whole market falls, your stocks lose — but your SPY puts gain, offsetting part of the damage. It works like homeowners insurance: you pay a premium every period, most periods it expires worthless and you are simply out the money — and you are not angry, because your house did not burn down. In the rare bad period, the payout is many times what you paid.

The full worked example. Your account is **$60,000**, invested in a diversified stock portfolio that moves roughly with the market. SPY trades at $600.

- Your market exposure in SPY terms: $60,000 ÷ $600 = **100 shares of SPY**. One SPY put contract covers 100 shares — so **1 contract** hedges the whole account.
- You buy a put with strike **$570** — 5% below the current price. The gap between $600 and $570 is your **deductible**: like insurance that only pays after the first chunk of damage, this put only starts paying once SPY falls below $570.
- The premium is **$6.00 per share**, so one contract costs $6.00 × 100 = **$600**, with about 3 months until expiration.

What it costs. $600 per quarter. Renewed four times a year, that is **$2,400 a year — 4% of your $60,000 account** — spent purely on insurance. In a flat year, where the market ends exactly where it started, all four puts expire worthless and your account is $57,600 on hedging costs alone. That is the honest price of sleeping well — and it is also why, in a good quarter (SPY up 10%), your gain is +$6,000 − $600 = **+$5,400**, not the full $6,000. Anyone who quotes you a cheaper-sounding hedge is skipping one of these lines.

What it pays in a −10% drop. SPY falls 10%: $600 → $540.

Piece	Math	Result
Your portfolio	−10% × $60,000	−$6,000
The put at expiration	($570 − $540) × 100	+$3,000
Premium you paid		−$600
Your total loss	−6,000 + 3,000 − 600	**−$3,600**

Look at where the $3,600 comes from: the first 5% of the fall ($3,000) was your deductible — unprotected by design — plus the $600 premium. Your 10% loss became a **6% loss** ($3,600 ÷ $60,000). The hedge did not make the crash painless. It made it survivable. (A put sold mid-crash is often worth more than the table shows, since fear spikes IV — count on the contract math, not the bonus.)

> **TIP**
> Buy your insurance *before* the fire. When the market is already crashing, IV has spiked and the same put can cost two or three times as much. Hedging in calm weather is not pessimism — it is shopping when prices are low.

Sizing a Hedge Without Guessing

A few plain rules of thumb keep hedging sane:

- **Match the notional.** Account value ÷ SPY price = your SPY share equivalent; ÷ 100 = contracts. $60,000 ÷ $600 = 100 shares = 1 contract. If the math gives 1.4 contracts, hedging with 1 is fine — partial insurance is normal.
- **Buy time, not days.** Insurance puts with 2–3 months or more until expiration decay slowly and are there when you need them. Puts expiring this week are not insurance — their theta rent is brutal and they are gone before most crashes finish.
- **Set an annual budget and respect it.** Decide in advance what insurance may cost per year — in the worked example, 4%, on the expensive side. A strike further below the price lowers the premium but raises your deductible: cheaper hedge, bigger first loss.
- **Re-check after big moves.** If your account grows to $90,000, one contract no longer covers it; if the market already fell hard, your old put may be deep in profit and your remaining exposure smaller. Resize to the account you have.

When NOT to Hedge

Insurance is a tool, not a religion. There are honest cases where hedging is the wrong move:

- **Small accounts.** On a $3,000 account, one $600 SPY put is 20% of everything you own, spent on a single hedge. That math never works. For small accounts, your hedge is **position sizing** — small risk per trade, cash kept aside, no single position big enough to sink you.
- **Positions that are already defined-risk.** A spread, or a bought option, already has a maximum loss you chose in advance. Insurance on top means paying twice against the same event.
- **Trades measured in days.** If a position will be closed this week by your plan, a 3-month index put is the wrong tool — it will barely move on your timeline while its premium is real money.
- **Money you will not need for many years,** where your written plan is to hold through storms and keep adding. Accepting full drops on purpose is legitimate — as long as it is *actually your plan*, written in calm weather, not a story invented mid-crash.

> **NOTE**
> Whether to hedge depends on your account, your timeline, and your temperament. Education only, not financial advice — with real money and real doubt, talk to a licensed professional.

Common Mistakes at This Level

- **Adding deltas across different stocks and calling it your exposure.** Net delta is per stock. Cross-stock totals need beta-weighting, or the number is meaningless.
- **Forgetting that sold options flip the sign.** Every Greek of a short option counts negative. One missed minus sign misreads your whole account.
- **Buying insurance during the crash.** Fear makes puts expensive; a hedge bought in a panic often costs more than the protection is worth.
- **Hedging with this week's puts.** Weekly puts decay to zero in days. Insurance needs months of time, not hours.

- **Believing five tech positions is diversification.** Same theme, same direction, same bad day.
- **Never re-sizing.** Your account and the market both move. A hedge sized last year is a guess today.
- **Counting the hedge as a profit center.** The put is *supposed* to expire worthless most of the time. Judging insurance by whether it "made money" guarantees you cancel it right before you need it.

Chapter Summary

- Every Greek from Level 1 can be totaled across your account — net delta, net theta, net vega — and the totals, not the individual positions, are what you actually experience. Net delta is your share-equivalent exposure in one stock (net delta +235 means a $1 rise pays about $235); delta dollars (net delta × price) is the true size of the bet.
- Beta-weighted delta translates every position into SPY-share equivalents using price ratio and beta — one honest number for your whole market exposure.
- Net theta is your daily rent, and net vega is your exposure to fear itself: the first prices time passing, the second prices what an IV spike or IV crush does to your account per point. Either sign is fine — not knowing is not.
- Concentration hides risk: five positions on one theme are one bet, and they will all lose on the same day.
- Index puts are account insurance: a real, recurring cost (4% a year in the worked example) that turned a −10% market drop into a −6% account loss, deductible and premium included.
- Hedge in calm weather, buy months of time, size to your actual account — and skip hedging when your account is small or your positions already have defined risk.

Check Yourself

1. Your positions in one stock add up to a net delta of +235, and the stock rises $1. About how much does your account gain from that stock?
2. True or false: a net theta of −$17 means time decay pays your account $17 a day.
3. Your net vega is +$120, and implied volatility rises 5 points in a scary week. Roughly how much do your option positions gain from the volatility move alone?
4. In the hedging example, the SPY put had a $570 strike with SPY at $600. Why did the put pay nothing toward the first 5% of the market's fall?
5. Name one situation where buying an index-put hedge is usually a bad idea.

Answers: 1) About $235 — net delta is your share equivalent, so a $1 move pays about $1 per unit of net delta. 2) False — negative net theta means your account *pays* about $17 a day in time decay. 3) About +$600 — vega is per IV point, so $120 × 5 = $600. 4) The gap between the $600 price and the $570 strike is the deductible: a put only has payoff value below its strike, so the first 5% of the decline is yours to absorb, plus the premium. 5) Any one of: a small account, where one premium is a huge share of the account (position sizing is the better hedge); positions already defined-risk, where you would insure the same event twice; or a trade you plan to close within days, which a months-long hedge cannot protect.

> **RULE**
> Know your three numbers — net delta, net theta, net vega — before the market opens, not after it closes. A trader who knows the size and shape of their whole bet can survive being wrong. A trader who only knows their positions one at a time gets surprised by their own account.



AA2-10

THE DOM & FOOTPRINT

Inside the futures order book — resting orders, traded volume, and honest limits.

Alpha Academy Level 2 · Team Alpha Trading

The DOM & Footprint Charts: Inside the Futures Order Book

In Level 1 you learned to read candles and volume. A candle tells you where price went and how the fight ended. It does not show you the fight itself — who was desperate, who was patient, and where the battle actually happened inside the candle. Two professional tools open that up: the **DOM** and the **footprint chart**.

The **DOM** (pronounced "domm") stands for **Depth of Market** — the live list of orders waiting to buy and sell a futures contract right now. A **footprint chart** is a candlestick chart where every candle is opened up so you can see how many contracts traded at each price inside it, and which side was pushing harder.

By the end of this module you will be able to read a DOM ladder line by line, read a footprint candle row by row, work out a candle's **delta** (the score of who pushed harder, explained below), and recognize the two things experienced traders watch for most: **absorption** and **failed pushes**. You will also know exactly what these tools cannot do — which matters just as much.

> **NOTE**
> Here is the honesty rule for every order-flow tool, stated plainly: the DOM and the footprint show **orders that were placed** and **trades that already happened**. They do not show anyone's intent, and they cannot tell you what price will do next. Nobody's screen shows the future. Anyone selling a course that claims otherwise is selling you fiction.

The Order Book: A Line of Waiting Orders

Every futures contract on the CME (the Chicago Mercantile Exchange, the main US futures exchange) trades from a single list called the **order book**. The book is made of **resting orders** — orders that have been placed and are waiting in line for a trade to happen.

Almost all resting orders are **limit orders**: orders that say "I will buy at this price or lower" or "I will sell at this price or higher." A resting order does nothing until someone else trades with it.

- Resting orders to **buy**, waiting below the current price, are called **bids**.
- Resting orders to **sell**, waiting above the current price, are called **offers** (also called asks).

Think of it as two lines at a ticket window. Buyers are lined up below, each holding a sign with the most they will pay. Sellers are lined up above, each holding a sign with the least they will accept. A trade happens when someone steps out of line and takes the other side's price — that person is the **aggressive** side of the trade, and the resting order they traded with is the **passive** side.

That one idea — aggressive versus passive — is the key to both tools in this module.

Reading the DOM Ladder

The DOM displays the book as a ladder: prices in the middle, waiting sell orders stacked above, waiting buy orders stacked below. Here is a small, slowed-down example for the ES (the E-mini S&P 500 future — one point is worth $50, and the smallest price step, a **tick**, is 0.25 points = $12.50):

Price	Contracts waiting	Side
6,001.00	140	Offer (sell)
6,000.75	96	Offer (sell)

Price	Contracts waiting	Side
6,000.50	61	Offer (sell)
6,000.25	44	Offer (sell)
5,999.75	58	Bid (buy)
5,999.50	73	Bid (buy)
5,999.25	210	Bid (buy)
5,999.00	320	Bid (buy)

Read it like this:

- The last trade happened at 6,000.00.
- The best (lowest) offer is 6,000.25, where 44 contracts are waiting to be sold. If you want to buy right now, that is the price you pay.
- The best (highest) bid is 5,999.75, where 58 contracts are waiting to be bought. If you want to sell right now, that is the price you get.
- The gap between best bid and best offer is the **spread**: 6,000.25 − 5,999.75 = 0.50 points. On the ES that spread is worth 0.50 × $50 = **$25 per contract** — the difference between buying at the offer and immediately selling at the bid. On the MES (the micro contract, $5 per point) the same spread costs 0.50 × $5 = **$2.50**.

The size column matters too. For price to trade up through 6,000.25, buyers must actually purchase all 44 contracts resting there. Big stacks of orders mean more contracts have to trade before price moves past that level. Watch the ladder for a few minutes and you will see stacks grow, shrink, and vanish — which brings us to the most important warning in this module.

Orders Are Not Intent: The Part Nobody Can Sell You

A resting order is a promise that can be cancelled in a blink, before it ever trades. Traders cancel and replace orders constantly — it is a normal, constant part of the market. That means:

- A huge stack of bids at a price is **not** a floor. It might trade — or it might be pulled the moment price gets close.
- The book shows you **quantities, not people**. You cannot see who placed an order, why, what else they own, or whether they are hedging (protecting another position) rather than betting.
- The book is a snapshot of this instant. A second from now it can look completely different.

> **RISK**
> The single most expensive order-flow mistake is treating a big resting order as a guarantee. "There are 320 contracts bid — price can't fall through that." It can, in seconds, if those orders are cancelled or simply overwhelmed by aggressive selling. The book shows orders. Orders are not intent, and intent is not the future.

Footprint Charts: Every Candle, Opened Up

The DOM shows orders waiting. The footprint shows trades that **already happened**, organized price by price inside each candle.

Here is how to read one row. Every price a candle touched gets a row with two numbers, written like **120 × 210**:

- The **left number** is contracts traded at the **bid** — an aggressive seller hit a resting buy order.
- The **right number** is contracts traded at the **offer** — an aggressive buyer lifted a resting sell order.

Now a full example. This is one 5-minute MES candle (MES: $5 per point, tick 0.25 = $1.25). The candle traded between 6,000.00 and 6,001.00:

Price	Sold at bid × Bought at offer
6,001.00	40 × 95
6,000.75	85 × 160
6,000.50	120 × 210
6,000.25	150 × 130
6,000.00	200 × 90

Add each side up:

- Sold at the bid: 40 + 85 + 120 + 150 + 200 = **595 contracts**
- Bought at the offer: 95 + 160 + 210 + 130 + 90 = **685 contracts**
- Total volume in the candle: 595 + 685 = **1,280 contracts**

Now read the story. At the bottom price, 6,000.00, sellers were the aggressive ones (200 sold vs. 90 bought) — early in the candle, sellers pushed. Higher up, the picture flips: at 6,000.50 buyers lifted 210 contracts against only 120 sold — buyers were in a hurry there. The candle closed near its high, and in a range of just 1.00 point (worth $5 per MES contract from low to high), the buyers did most of the pushing by the end.

Delta: The Candle's Tug-of-War Score

Delta, in the footprint world, means the difference between aggressive buying and aggressive selling:

Delta = contracts bought at the offer − contracts sold at the bid

For our example candle: 685 − 595 = **+90**. A positive delta means aggressive buyers pushed harder during that candle. A negative delta means aggressive sellers did.

> **NOTE**
> Do not confuse footprint delta with the **options delta** from AA-12. Same word, completely different tool. Options delta measures how an option's price reacts to the stock. Footprint delta counts contracts in a futures candle. Context tells you which one is on the screen.

Two honest limits on delta. First, delta measures **aggression, not direction of anyone's overall position** — a trader closing out a short position also buys, and their buying prints the same as a brand-new bull's.

Second, some traders watch **cumulative delta** (the running total of delta across the whole day) as background context. It is a gauge, not a signal. A big positive delta candle into a level price has hit many times before still fails often. Delta is one clue to stack on top of your Level 1 tools — price levels, trend, and risk rules — never a replacement for them.

What Experienced Traders Actually Watch For

Professionals do not trade every wiggle of the book. They mostly watch how price behaves at levels they already care about — yesterday's high, a big support zone, the day's VWAP (the volume-weighted average price, from AA-07). Two patterns come up again and again.

Absorption: Selling That Goes Nowhere

Absorption means aggressive traders keep hitting one price, hard, and price refuses to move — because a large passive trader on the other side keeps quietly taking every contract.

Picture MES falling to 5,980.00, a level it has bounced from before. Three separate pushes drive into it. Each push prints heavy selling at the bid — say 900 or more contracts sold right at 5,980.00 and 5,979.75 across a few minutes — yet price ticks down to 5,979.75 and snaps straight back to 5,980.25 every time. The reading: someone big is resting there, absorbing everything the sellers throw at them. That often comes before a bounce, because the sellers have spent their energy against a wall that would not move.

Often — not always. Sometimes the passive buyer finally steps aside or gets overwhelmed, and the level breaks violently, with all those trapped sellers' stops adding fuel. Absorption is a clue about who is tired. It is never a promise.

Failed Pushes: New Highs on Empty Tanks

A **failed push** is the mirror image. Price pokes to a new high of the day, but the footprint shows the aggression dying: three candles making higher highs print deltas of +400, then +180, then +40. Buyers are still reaching higher prices, but fewer and fewer of them are in a hurry. When the last push makes a new high on a delta of +40, experienced traders get cautious — the move may be running out of urgent buyers. Again: a clue about energy, not a crystal ball. Strong trends can look "tired" for hours and keep going.

Why the Futures DOM Is Real — and Stock Level 2 Is a Patchwork

This is the reason order flow is a futures game. ES, MES, and the other CME contracts each trade on **one exchange with one central order book**. The DOM you see is the actual book — every resting order in that contract, in one place (platforms typically show the best 10 or so levels on each side).

Stocks are different. A single stock trades on more than a dozen exchanges plus private off-exchange venues (often called dark pools), and a large share of stock volume never appears in any visible book before it trades. Stock **Level 2** (the stock-market cousin of the DOM) stitches together quotes from many places — useful, but it is a patchwork that never shows the whole picture.

Same tools, different trust level. In futures, what you see is the real, complete line of waiting orders. In stocks, you are seeing part of the line, through several windows at once.

How a Beginner Should Use This: Watch First, Paper Only

- **Start on MES, on a paper account.** MES is $5 per point, so lessons are cheap when you eventually practice with size — but at this stage, do not trade off these tools at all. Watch.

- **Run watch-only sessions.** Pick a level price has respected before. Watch the DOM and footprint there for 30 minutes. In your journal, write what you saw and what you *thought* would happen next — then grade yourself afterward, honestly.
- **Stack clues, never chase one print.** A footprint signal means little alone. It means more when it happens at a real level, in the direction of the day's trend, with your risk planned before you act.
- **Mind the cost.** Footprint and DOM displays usually require a paid data package or platform add-on. Prices change — check what your platform charges before subscribing, and never let a subscription push you into trading more just to "get your money's worth."

Common Mistakes at This Level

- Treating a big resting order as support that "can't break" — it can be cancelled in a blink.
- Buying or selling every delta spike, instead of reading flow only at levels that already matter.
- Mixing up footprint delta with options delta and sizing a trade off the wrong number.
- Staring at the ladder and forgetting your actual plan: entry, stop, and position size from AA-19.
- Assuming a stock Level 2 screen shows the whole market the way a futures DOM does.
- Paying for order-flow tools, then overtrading to justify the subscription.

Chapter Summary

- The order book is the list of resting limit orders: bids waiting below price, offers waiting above.
- The DOM (Depth of Market) displays that book as a ladder with prices and contract sizes.
- Every trade has an aggressive side (takes the resting price) and a passive side (was resting). Footprint charts split each candle's trades by price into sold-at-bid × bought-at-offer.
- Delta = bought at the offer − sold at the bid. It scores aggression in a candle; it is not the options Greek delta.
- Absorption is heavy aggression into a level that will not move; a failed push is a new high or low made on shrinking aggression. Both are clues, not guarantees.
- Resting orders can be pulled at any moment. The book shows orders, not intent — and no feed shows the future.
- Futures trade on one central book, so the DOM is complete. Stock Level 2 is fragmented across many venues and is only partial.
- Beginners should watch the DOM and footprint on MES with a paper account, journaling predictions before grading them.

Check Yourself

1. In a DOM ladder, what are the resting orders below the current price called, and what do they represent?
2. A footprint row reads **120 × 210**. Which side was more aggressive at that price, and by how many contracts?
3. A candle's rows total 595 contracts sold at the bid and 685 bought at the offer. What is the candle's delta, and what was its total volume?
4. Why can a stack of 320 bid contracts at a price NOT be trusted as support?
5. Why is the futures DOM a complete picture of the book, while stock Level 2 is not?

Answers: 1) Bids — resting limit orders to buy at that price or lower, waiting in line. 2) Buyers at the offer: 210 bought vs. 120 sold, a difference of 90 contracts. 3) Delta = 685 − 595 = +90 (aggressive buyers pushed harder); total volume = 595 + 685 = 1,280 contracts. 4) Resting orders can be cancelled before they ever trade, and even real size can be overwhelmed — the book shows orders, never intent or the future. 5) Each futures contract trades on one exchange with one central order book, so the DOM shows the whole line of orders; stocks trade across many exchanges and off-exchange venues, so Level 2 only ever shows fragments.

RULE

The book shows orders, not intent — and no order-flow tool shows the future. Watch MES on paper, journal what you see, and let these tools inform your Level 1 plan — never replace it.



AA2-11

TRADING THE OPEN

A sane framework for the wildest thirty minutes of the trading day.

Alpha Academy Level 2 · Team Alpha Trading

Trading the Open: The First 30 Minutes

You already know futures trade nearly around the clock (from AA-15: Sunday 6 PM to Friday 5 PM ET on CME Globex, with a daily break). So why does everyone talk about "the open" like it is a separate event? Because at 9:30 AM ET the US stock market opens — and the sleepy overnight futures market suddenly gets hit by the biggest wave of orders of the entire day.

The first 30 minutes after 9:30 routinely contain more movement, more volume, and more danger than a full quiet afternoon. Beginners are drawn to it because everything moves fast. Professionals respect it because everything moves fast. In this module you will learn what is actually happening in those minutes, two ideas that help you read them — **overnight inventory** and the **opening range** — a sane step-by-step routine, and a fully worked example morning on MES. The honest headline: at this stage of your trading life, the open is mostly something you watch and study. This module will show you how to do that like a professional.

> **NOTE**
> The open is where beginners lose money fastest. Everything in this module is for paper trading and observation first. Speed is not an edge — at the open, speed without a plan is just a faster way to be wrong.

Why the Open Is the Wildest Half Hour

Three forces collide at 9:30 AM.

A night of news lands all at once. While US stocks were closed, companies reported earnings (the scheduled profit reports from AA-10), world markets moved, and headlines stacked up. Thousands of investors and funds decided overnight what they wanted to do — and all of those orders arrive in the same first minutes.

Institutions reposition. Big funds do much of their buying and selling near the open and the close, because that is when volume — and therefore the ability to trade large size without moving price too much — is greatest. Their orders are big enough to shove price around in ways that have nothing to do with what a small trader sees on a chart.

Stops and machines trigger in chains. When price jumps quickly, stop orders (the automatic exit orders from AA-04) fire into the move, and fast computer programs react to other programs. Price can whip 5 points down, 7 points up, and 4 points down again inside two minutes — not because value changed three times, but because everyone is tripping over everyone else.

Feel the size of that with real numbers. Suppose MES swings 10 points in the opening minutes — an ordinary event at the open, while a quiet midday half hour might see 2 or 3 points. On one MES contract ($5 per point), 10 points is **$50**. On one ES contract ($50 per point), the same swing is **$500** — and if you are on the wrong side of two whipsaws in a row, it happens before you have finished your coffee. Wider **spreads** (the gap between the price you can buy at and sell at, from AA-04) and **slippage** (your order filling at a worse price than you clicked, because price moved before it executed) are both at their worst in these minutes. You pay more to get in, and more to get out, exactly when decisions are hardest.

Overnight Inventory: Who Is Holding, and Are They Trapped?

Futures trade all night in the **overnight session** (the Globex hours before 9:30 AM). Traders who bought during the night are holding positions into the open. Collectively, those positions are called **overnight inventory** — think of it as everyone who walked into the store early and is already carrying bags.

What matters is whether those holders are comfortable or trapped:

- If most overnight buying happened around, say, 6,000, and the open drives price up to 6,010, overnight longs are winning. They are in no rush to sell. Their comfort supports price.
- If price instead falls to 5,990 and keeps pressing lower, those same buyers are underwater — every one of them is losing money on a position they took hours ago. Some will give up and sell to exit. Their selling adds extra fuel to the drop. They are **trapped**, and trapped traders exiting is real, mechanical selling pressure.

Before the open, mark two overnight reference points in your platform: the **overnight high** and the **overnight low** — the highest and lowest prices traded during the night. They are the edges of the world traders built while you slept. Price opening and holding *inside* that range usually means a calmer negotiation. Price pushing *out* of it means someone is forcing a repricing — and everyone who bet the other way overnight has a problem to solve.

> **TIP**
> Overnight inventory is pressure context, not a prediction. "Overnight buyers are trapped" tells you selling *may* accelerate if price falls further. It never tells you price *will* fall. Use it to understand fuel, not to call direction.

The Opening Range: A Frame, Not a Fortune Teller

The **opening range** is simply the high and the low of the first chunk of the regular session — most traders use the first 15 or the first 30 minutes (9:30–9:45 or 9:30–10:00). You draw two lines on your chart and let the rest of the morning organize itself around them:

- Price breaks **above** the opening range high and holds there: morning buyers are in control, so far.
- Price breaks **below** the opening range low and holds: morning sellers are in control, so far.
- Price chops **inside** the range: a tug of war. No side has won, and there is usually no trade worth taking in the middle of a tug of war.

Why does this help? Because it forces a *wait*. Instead of reacting to every 9:31 wiggle, you let the market draw its own lines first, then you judge what happens at those lines — exactly the way you judge support and resistance from AA-08.

Now the honesty. The opening range is **a frame, not a fortune teller**. A frame organizes the picture; it does not tell you what the picture will become. Breaks of the range fail constantly — price pokes above the high, traps eager buyers, and reverses back inside. That is a **false breakout**, the same trap you met in AA-08, and the open manufactures them by the dozen. The range tells you where the battle lines are. It never promises which side wins.

Gaps at the Open: A Quick Review

From AA-05, a **gap** is when price opens away from the previous close, leaving empty space on the chart in between. At the open you will see gaps constantly, so here is the fast review that matters for the first 30 minutes:

- **Small gaps often fill.** A gap of a few points frequently retraces — price drifts back to yesterday's close (the gap "fills") during the morning, because nothing fundamental actually changed.
- **Big news gaps often keep going.** When a company reports a blowout quarter, or a major economic report (a scheduled government release of numbers like jobs or inflation, usually printed at 8:30 AM ET, an hour before the open) shocks the market, the gap is the market repricing something real. Those gaps can run for hours.
- **Your job is to watch acceptance or rejection.** If price gaps up and *holds* above the open, buyers are accepting the new price. If it gaps up and immediately slides back toward yesterday's close, buyers are rejecting it. You learn this by watching the first minutes — not by trading them.

A Sane Open Routine, Step by Step

Here is a professional-shaped morning for a student. Every step exists to keep you out of the blast zone until the market has shown you something.

- **Before 9:30 — prepare on paper.** Mark yesterday's high, low, and close; the overnight high and low; and check whether an 8:30 AM economic report is scheduled. Decide your maximum loss for the day (from AA-19) *now*, while you are calm.
- **9:30–9:35 — hands off the mouse.** Watch only. This is the most violent five minutes of the day (see the callout below). Your only job is to observe how price treats the overnight levels.
- **9:35–9:45 — draw the frame.** Mark the forming opening range. Note whether overnight holders look comfortable or trapped. Write one sentence in your journal: "Buyers/sellers/nobody in control, because ___."
- **After 9:45 — trade only your plan.** If — and only if — a setup from your written plan appears, take it at your **smallest size**: one MES contract. No setup, no trade. A morning with zero trades is a completely successful morning.
- **Hard stop by time.** Set two clock rules before the open and obey them like alarms. Rule one: no new trades after a set time (10:30 AM works well for an open-focused plan) — the open's setups have a shelf life, and chasing them late is how morning profits and morning discipline both die. Rule two: if you hit your daily maximum loss at any point, you are done for the day, full stop — the clock on your trading day has run out early.

> **RISK**
> Do not trade the first five minutes. Between 9:30 and 9:35 the spreads are widest, slippage is worst, and price routinely whips hard in both directions — up enough to trigger your greed, down enough to trigger your stop, then back again. Whatever a beginner thinks they see in those five minutes, the market can reverse before their order even fills. Watch them. Study them. Let other people pay the tuition in those five minutes.

A Worked Morning, Step by Step (MES)

Walk through one ordinary morning with one paper MES contract ($5 per point, tick 0.25 = $1.25).

The setup, before the open. Yesterday MES closed at 6,000.00. Overnight it traded between a high of 6,006.00 and a low of 5,994.00 — overnight buyers did most of their business up near 6,004–6,006. No 8:30 report today. Daily maximum loss: $25.

9:30. MES opens at 6,002.00, a small gap up of 2 points from yesterday's close, inside the overnight range. You watch.

9:30–9:45. Price pushes to 6,007.50 — a new high above the overnight high — then pulls back, but holds above 6,001.00. The 15-minute opening range is set: **high 6,007.50, low 6,001.00**, a range of 6.50 points (6.50 × $5 = $32.50 per contract, high to low — already a wide morning).

9:47. A candle closes at 6,008.25, above the opening range high. Buyers have taken the frame. But your plan does not chase closes — it buys a **retest**: after a breakout, price often comes back to touch the level it just crossed, and holding there is stronger evidence than the first poke.

9:52. Price pulls back to 6,007.75, touches just above the range high, and refuses to fall back inside. The retest is holding. You buy **1 MES at 6,008.00**.

The risk, written down before anything else. Your stop goes below the retest, at 6,006.00: risk = 6,008.00 − 6,006.00 = **2.00 points × $5 = $10** per contract, before fees. Your target is 6,014.00: reward = 6.00 points × $5 = **$30** — three times the risk, the kind of planned trade AA-19 describes.

10:20. Price reaches 6,014.00 and your target fills. Profit: **+$30 before fees** ($30 minus a few dollars of commissions and exchange fees is the real number; check your broker for what a round trip on MES costs you). Journal it: setup, entry, stop, target, and the sentence "waited 22 minutes before trading."

The other branch — say it out loud. If price had fallen to 6,006.00 instead, your stop fills, you lose **$10 plus fees**, and that idea is over. No re-entry, no "one more try" — your plan allowed this setup once, and your $25 daily maximum still has room, but a second revenge trade is how $10 mornings become $50 mornings. In the journal you would write exactly that, and the morning would still count as well-traded.

Common Mistakes at This Level

- Trading the first minute because "the open is where the money is" — it is also where the losses are, and they arrive first.
- Having no levels marked before 9:30, then making decisions in the middle of a whipsaw.
- Trading full size on ES at the open instead of one MES contract — a 10-point swing is $500 on ES, $50 on MES.
- Revenge trading after an early stop: re-entering bigger to "win it back" before 9:45.
- Chasing every opening range breakout, including the false ones, with no retest and no plan.
- No clock rule — the open ends at 10:00, but the trader is still forcing open-style trades at 1:00 PM.

Chapter Summary

- The 9:30 AM open is the wildest half hour because overnight news, institutional repositioning, and chains of stop orders all arrive at once — with the widest spreads and worst slippage of the day.

- Overnight inventory is the set of positions built during the overnight session. Holders who are underwater at the open are trapped, and their exits can add real pressure in that direction.
- Mark the overnight high and low before the open; they are the edges of the overnight world.
- The opening range (first 15 or 30 minutes) is a frame for the day: above it, buyers control so far; below it, sellers; inside it, no trade. It is a frame, not a fortune teller — false breakouts are common.
- Small gaps often fill; big news gaps often keep going. Watch whether price accepts or rejects the new level.
- A sane routine: prepare levels before 9:30, watch 9:30–9:35 without trading, draw the frame, trade only your plan afterward at your smallest size, and obey a hard stop by time and a hard daily loss limit.
- The worked MES morning: buy 6,008.00 on a retest, stop 6,006.00 (risk $10), target 6,014.00 (reward $30) — planned before the trade, journaled after it.

Check Yourself

1. Why do so many orders hit the market in the first minutes after 9:30 AM?
2. What is the opening range, and what does price chopping *inside* it usually mean?
3. Overnight buyers did most of their buying near 6,005, and price opens and presses down through 5,995. Why can that add extra selling pressure?
4. In the worked example, you buy 1 MES at 6,008.00 with a stop at 6,006.00. What is your dollar risk before fees, and what is the planned reward to the 6,014.00 target?
5. Why does this module tell beginners not to trade the first five minutes of the day?

Answers: 1) A night of news, earnings, and decisions piles up while stocks are closed, institutions do heavy repositioning when volume is highest, and stops and automated programs trigger in chains. 2) The high and low of the first 15 or 30 minutes of the regular session — a frame for the day; chopping inside it means a tug of war with no side in control and usually no trade worth taking. 3) Those buyers are underwater on positions held for hours; some exit by selling, and that mechanical selling adds fuel to the drop. 4) Risk = 2.00 points × $5 = $10; reward = 6.00 points × $5 = $30 — three times the risk, planned in advance. 5) Because spreads are widest, slippage is worst, and price whips violently in both directions — fills are unreliable and stops get clipped by noise; watching those minutes teaches more than trading them costs.

> **RULE**
> At the open, your first job is to watch, mark levels, and protect your account: smallest size, a stop you honor, a daily loss limit, and a clock time when you are done — no exceptions.



AA2-12

SWING TRADING A–Z

Holding for days, not minutes — entries, sizing, overnight risk, and the weekly routine.

Alpha Academy Level 2 · Team Alpha Trading

Swing Trading A–Z: Holding for Days, Not Minutes

Day trading means getting in and out the same day. **Swing trading** means something different: you buy a stock and hold it for a few days to a few weeks, aiming to catch one clean "swing" — one leg of a move — then sell and wait for the next one. Think surfing: a day trader rides every ripple and is back on the beach by dinner; a swing trader waits for one good wave and rides it a while — fewer trades, bigger moves, far less screen time.

In this module: how swing trading honestly compares to day trading, why the daily chart is home base, the two entries, how to size a real trade — plus the risk day traders never face: what happens to your money while you sleep.

> **NOTE**
> This module builds on Level 1 — you should already know what a candlestick, a stop loss, and the 1% rule are (see AA-05 and AA-19). Everything here is education, not financial advice. Swing trading carries a risk day trading does not: prices can jump against you overnight, past your stop. Read the overnight risk section before ever holding a trade overnight.

Swing Trading vs. Day Trading: The Honest Comparison

	Day Trading	Swing Trading
Hold time	Minutes to hours, flat by the close	2 days to a few weeks
Overnight risk	None — you own nothing at night	Real — gaps can jump over your stop

Time. A day trader must be at the screen, thinking fast, while the market is open. A swing trader works when the market is closed — weekend scanning, planning at night, brief check-ins. With a job or a family, this matters more than any strategy detail.

Stress. Day trading stress is sharp but ends at the close: you own nothing. Swing stress is quieter but longer — your money stays in overnight, on weekends, through news you cannot control. Neither is "easier."

Risk — and the gap. A day trader's stop almost always fills near its price; they are watching and the market is open. A swing trader's stop can be jumped. A **gap** is a leap from one price to a very different one with no trading in between: a stock closes at $50, bad news hits at 7 PM, it opens at $44 — your $47.40 stop never trades. A full section below covers this; it is the price of admission for swing trading.

The Daily Chart Is Home Base

Swing traders plan on the **daily chart** — each candle is one full day of trading. About 20 candles make a month, so a few months of history fit on one screen. A swing lasts days to weeks, so the daily chart is where that swing actually lives; on a 5-minute chart, a beautiful two-week uptrend looks like random noise. Match your chart to your hold time:

- **Daily chart** — your decision chart. Trend, entries, stops, and targets are all read here.

- **Weekly chart** — your backup opinion. If the weekly is in a clear downtrend and the daily shows a bounce, you are trading against the bigger current. Know it before you enter.
- **Hourly chart (optional)** — fine-tuning only, never where the decision comes from.

The Core Logic: Trend, Then Pullback

Swing trading reduces to one sentence: **find a stock moving in a clear direction, then buy the rest stop, not the run.**

Prices rarely move in straight lines. A stock in an **uptrend** — higher highs (each peak above the last) and higher lows (each dip above the last) — climbs in steps: push up, rest or dip, push up again. Those rests are **pullbacks**: small moves down inside a bigger move up. Swing traders love them, because they offer a better price and an obvious place to be wrong — if the dip falls through where previous dips stopped, the trend story is broken and you exit.

Chasing the run instead — buying after three big green days — is the classic error. The stop then sits far below: a big loss if you are wrong, or a tiny position if you size by risk. The pullback keeps the stop close, under the dip, where it belongs.

A clean swing setup has three ingredients:

- **A clear trend.** Higher highs and higher lows on the daily chart. If you have to squint and argue, it is not clear.
- **A pullback to a level that matters.** A previous low, a rising trendline, or a key moving average — a place buyers defended before.
- **A sign the dip is ending.** A strong green candle, a close back above the pullback's small highs, rising volume — evidence buyers are stepping back in.

A **moving average** smooths price into one line — the 20-day moving average is the average closing price of the last 20 days, updated daily. In healthy uptrends, pullbacks often pause near the rising 20-day or 50-day average, because thousands of traders watch the same lines. Not magic — a crowd habit, and crowds make levels real.

The Two Classic Entries

Entry #1: The pullback entry. The stock is in a daily uptrend. Price pulls back over several days toward support or the rising 20-day moving average. You wait for proof the dip is finishing — a strong up day closing near its high — then buy, stop just below the pullback's low. The gift here is the short distance to the stop: small risk per share, a loss that stays near your planned 1%.

Entry #2: The breakout entry. A **breakout** is price pushing through a level it could not pass before — most often a prior high. When a stock bounces under $55 for weeks, then *closes* above $55 on strong volume, buyers have finally won a fight they kept losing. Swing traders buy that close (or the next small dip that holds above $55) aiming for the next leg up.

The trade-off: the pullback entry gives a better price and closer stop, but you buy while price is still dipping — patience and proof required. The breakout gives confirmation, but you pay more and the stop sits further away. Neither is better. Never mix them mid-trade: buying a breakout, then "averaging down" when it dips, turns one planned trade into a mess.

A Fully Worked Swing Trade

One complete trade, planned on a Sunday night, every number shown. Fictional stock, real arithmetic — check it yourself.

The situation. Your account is **$25,000**, and you follow the 1% rule from AA-19: never plan to lose more than 1% on one trade. 1% of $25,000 = **$250 maximum planned risk**.

A stock, ticker **XYZ**, has been in a clean uptrend for three months. It ran to **$55.00** (its prior high), then pulled back for a week to **$50.00**, right at its rising 20-day moving average. The pullback's low was **$47.60**, and Friday XYZ printed a strong green candle closing at $50.00. Earnings are three weeks away — you checked. (The next section explains why that check is never optional.)

The plan.

- **Entry:** buy at **$50.00** Monday, at or near Friday's close level.
- **Stop: $47.40** — just below the pullback low of $47.60. If price trades there, the story is broken and you are out.
- **Target: $55.00** — the prior high, the first place sellers showed up before.

The sizing math, step by step.

- Risk per share = entry − stop = $50.00 − $47.40 = **$2.60 per share**.
- Shares = max risk ÷ risk per share = $250 ÷ $2.60 = 96.15 → round **down** to **96 shares**. Always round down — rounding up breaks your own rule.
- Position cost = 96 × $50.00 = **$4,800**. Notice: you are not "risking $4,800" — you are *investing* $4,800 and *risking* about $250.
- Downside check: stopped at $47.40, loss = 96 × $2.60 = **$249.60** — right at plan. Upside check: at the $55.00 target, gain = 96 × $5.00 = **$480**.
- Reward-to-risk = $480 ÷ $250 ≈ **1.9 to 1**. Many swing traders skip trades under about 1.5 to 1 — at 1 to 1, you must win two-thirds of your trades just to break even before costs.

How it might play out. XYZ rises over six sessions to $54.20, stalls, and you sell at $54.00: gain = 96 × $4.00 = **$384**. Or it fades on day two, hits $47.40, and you are out −$249.60, no debate. Both are the system working: your job is not to win this trade, but to take ten trades like it, sized the same way, so the math — not your mood — decides the result. Notice, too, that entry, stop, target, and size were all decided in writing before the market opened; during the trade there was nothing left to decide, only to follow.

Overnight and Weekend Risk: The Price of Admission

One fact rules this section: **while you hold a swing trade, the market can move without you — and without your stop.**

Gaps. Say XYZ closes Tuesday at $52 and the company releases ugly news that night. Wednesday can open at $46. Nothing traded at $50, $48, or your $47.40 stop on the way down — the first trade of the day is simply $46. Your stop fills near $46, and instead of the planned $249.60 loss you lose 96 × ($50.00 − $46.00) = **$384** — about 1.5× plan, through no mistake of yours. Sized sanely, it stings and you move on; sized recklessly, it ends accounts. Gaps also cut both ways: good news can gap your stock up past your target.

Earnings are the biggest scheduled gap risk. An **earnings report** is the company's quarterly report card — sales, profit, and outlook — released after the close or before the open. Stocks routinely move 5–15% on earnings, in *either* direction, sometimes even on numbers that look "good," because the market reacts to expectations, not just results. Hold through earnings night and you are no longer trading your chart — just flipping a coin you cannot analyze.

The rule most swing traders live by: before entering, check the earnings date (your broker shows it; free calendars list it) and ask whether the company reports during your planned hold. Then choose, on purpose:

- **Exit before earnings.** Close the day before the report, win or lose. The standard beginner choice — and the right one while learning.
- **Hold through, knowingly.** Some experienced traders hold smaller, accepting the gap can cost more than the stop. If you ever do this, size as if the stop does not exist — because that night, it doesn't.

Holding through earnings *by accident*, because you didn't check, is not a strategy. It is an oversight.

Weekends are the same risk in miniature: two-plus days of world news — elections, wars, central-bank surprises — with no way to exit. Holding into a weekend with a known big event is a conscious decision, not a default. **Managing this risk.** Size for the gap, not just the stop — if a 10% overnight drop would hurt more than you can accept, the position is too big even when the 1% math says otherwise. Diversify a little: gaps usually hit one company at a time, so five positions in unrelated businesses rarely all gap the same night. And accept the trade-off — this risk buys your freedom from the screen. If it keeps you awake at any size, that tells you which style fits you.

Scaling In and Out

Scaling means entering or exiting a position in pieces instead of all at once.

Scaling out is the beginner-friendly version. You hold 96 shares of XYZ, target $55. At $54, you sell half — 48 shares — banking 48 × $4.00 = **$192**, and let the other 48 ride toward $55 with your stop raised to your entry price. The second half now risks roughly nothing, and a trade that "can't lose anymore" is far easier to hold calmly. **Scaling in** means starting smaller and adding only if the trade works: 48 shares at $50, then 48 more after price reaches $52 and holds. Your biggest size ends up in your winners. The trap is the reverse — adding to a *losing* position to lower your average price. That is **averaging down**: doubling a bet that a broken story is fine, and how one planned $250 loss becomes an unplanned $900 one. Add to winners if you add at all — never add to a loser to make the red number feel smaller.

How Many Positions at Once?

A sane frame for a $25,000 account risking 1% per trade:

- **3 to 5 open positions** is a workable beginner range. If all five stopped out, you lose about 5% — painful but survivable.
- **Watch the total, not just each trade.** Five positions at 1% each = 5% exposed if everything goes wrong together — and in a real sell-off, unrelated stocks often fall together.
- **Mind the sameness.** Five semiconductor stocks are not five positions; they are one bet in five costumes. Spread across industries so one sector's bad week cannot take the whole book.

Every position needs a stop, a target, and an earnings date you know. If you cannot state those three, you have too many positions.

The Weekly Routine: Where Swing Traders Actually Work

Weekend (45–60 minutes) — the big session.

- Review open positions: stops still right? Earnings inside your hold window? Write adjustments down now, not Monday morning.
- Scan for setups: clean uptrends pulling back to support; stocks coiling under prior highs. Charts only — no news rabbit holes.
- Build a watchlist of 5–10 names, each with the full plan written in advance: entry trigger, stop, target, size from your 1% rule. If the trigger never fires, there is no trade — and that is fine.

Weeknights (10–15 minutes).

- Check the day's closes. Did a trigger fire? Did a stop get hit?
- Place or adjust tomorrow's orders from your written plan; glance at tomorrow's earnings calendar for anything you hold.
- Write two lines in your journal. Close the app. Done.

During market hours — mostly nothing. Your orders and stops do the work. Swing discipline is largely *not* improvising at 10:47 AM over a scary candle on a timeframe you do not trade. Do your thinking when the market is closed and your emotions are quiet, and your executing when it is open — traders get in trouble when they reverse those two.

Swing Psychology: Patience Is the Skill

Day traders fight excitement — the urge to click. Swing traders fight two quieter enemies.

Boredom and doubt during the hold. Your trade will spend most of its life doing nothing, or mildly annoying you. XYZ dips $0.80 on a random Tuesday for no reason. On the daily plan, that is noise inside a healthy setup; in your head, it feels like the beginning of the end. This is why entry, stop, and target were written down beforehand: Tuesday-you cannot renegotiate what Sunday-you decided with a clear head. **The urge to micro-manage.** Checking the 5-minute chart of a daily-chart trade is checking the oven every thirty seconds — it changes nothing and ruins the cook. Intraday wiggles inside your planned range carry zero information about your trade. If you refresh constantly, the position is likely too big for your nerves: size is a psychology tool, not just a math tool. Master these two enemies and swing trading leaves most of your day — and mind — free, often the only style compatible with a job, a business, or school.

Matching the Style to Your Life

Strip away the strategy talk and this is the real question: **which style fits the life you actually have?**

- **Two free evenings a week and a day job?** Swing trading was built for you.
- **Free mornings, love fast decisions?** Day trading may fit — with its own education and risks.
- **Overnight risk ruins your sleep at any size?** Do not swing trade real money. Paper trade it, shrink it, or pick another style — a strategy abandoned at the first scary headline has a 0% success rate, however good it looks on paper. There is no prize for trading the hardest style, only the style you can execute calmly for years.

Common Mistakes at This Level

- **Treating swing trading as day trading with extra days.** Entering on a 5-minute signal, then "holding it as a swing" when it goes red. A swing trade begins with a daily-chart plan or it is not one.
- **Never checking the earnings calendar.** Holding through a report by accident, eating a gap whose date was public weeks in advance.
- **Sizing by cost instead of by risk.** "I bought $4,800 worth" says nothing about risk. What matters is (entry − stop) × shares against your 1%.
- **Averaging down losers, never scaling out of winners.** Exactly backwards — big losses, small wins, a shrinking account.
- **Moving the stop down "to give it room."** That rewrites the contract mid-trade. Want more room? Size smaller — before entry.
- **Holding positions you cannot track.** No known stop, target, or earnings date means no plan — just hope.
- **Quitting after two losses.** At 1.9-to-1, even a 45% win rate is profitable: over 10 trades, about 4.5 wins × $480 ≈ $2,160 against 5.5 losses × $250 = $1,375. Judge a swing system after 20–30 trades, never after two.

Chapter Summary

- Swing trading holds for days to weeks, catching one leg of a move; day trading opens and closes the same day.
- The trade-off: far less screen time — paid for with overnight gap risk that can jump your stop either way.
- The daily chart is home base; the weekly gives the bigger picture; smaller timeframes only fine-tune.
- Core play: a clear trend, a pullback to a level that matters, a sign the dip is ending. Breakouts through a prior high are the second entry.
- Size from the 1% rule: shares = max risk ÷ (entry − stop). Example: $250 ÷ $2.60 = 96 shares, risking $249.60 toward $480 — about 1.9 to 1.
- Check the earnings calendar before every hold: exit before the report, or hold through knowingly and smaller — never by accident.
- Scale out into strength; scale in only on winners. Never average down.
- Keep 3–5 understood positions across industries, total open risk in view.
- Work on a weekly rhythm — weekend plans, ten quiet minutes nightly, almost nothing during market hours — and choose the style that fits your life.

Check Yourself

1. What is the main risk swing traders accept that day traders avoid completely?
2. In the worked example, why was the position 96 shares and not more? Show the math.
3. XYZ closes at $52, then gaps open at $46 after bad news. Your stop was $47.40; you bought 96 shares at $50. Roughly what do you lose, and why isn't it the planned $249.60?
4. What must you always check before holding a stock for the next two weeks, and what are your two choices about it?
5. What is the difference between scaling in done right and averaging down?

Answers: 1) Overnight (and weekend) gap risk — price can jump past your stop while the market is closed, so a loss can exceed the planned amount; gaps can also jump in your favor. 2) The 1% rule caps planned risk at $250 on a $25,000 account. Risk per share is $50.00 − $47.40 = $2.60, so $250 ÷ $2.60 = 96.15, rounded down to 96 shares (96 × $2.60 = $249.60). 3) About 96 × ($50.00 − $46.00) = $384. A stop only works when the market trades through it — the gap jumped over $47.40 with no trades there, so it filled near the $46 open. 4) The earnings calendar — whether the company reports during your planned hold. Exit before the report (the standard beginner choice), or hold through knowingly, smaller, sized as if the stop does not exist that night. 5) Scaling in done right adds shares only after the trade moves in your favor, so your biggest size is in winners; averaging down adds to a loser to lower the average price, growing a bet on a story the market is rejecting.

> **RULE**
> Match the style to your life, not your life to the style. The best trading style is the one your schedule, your temperament, and your sleep can sustain for years — plan on the daily chart, size by risk, respect the overnight gap, and let patience do the heavy lifting.



AA2-13

BUILDING & BACKTESTING

Prove it before you trade it — expectancy, overfitting, and honest testing.

Alpha Academy Level 2 · Team Alpha Trading

Building & Backtesting a System: Prove It Before You Trade It

In Level 1 you learned what the market is, how orders work, and how to protect yourself with position sizing and stops. This module teaches the next step: turning a trading idea into a **system** — a complete set of written rules — and testing that system on old data before a single real dollar rides on it.

By the end, you will be able to write a rule set with no wiggle room, test it by hand or with software, read the numbers that tell you whether it works, and spot the traps that make bad systems look brilliant on paper.

> **NOTE**
> A good backtest never guarantees future profit. It only tells you whether an idea worked in the past, under the conditions you tested. Treat every result in this module as education, not a promise.

What a System Is

A **system** is a complete set of written rules that makes every decision in a trade before the trade happens. A hunch says "this stock looks strong, I think I'll buy some." A system says exactly what to buy, when, how much, where to get out if you are wrong, and where to get out if you are right. If any part is left to how you feel that morning, it is not a system yet — it is a guess wearing a suit.

Every system needs five parts, and each part must be so specific that two different people following the sheet would take the same trades:

- **Setup** — the situation you are waiting for. What must the chart look like before you even consider a trade?
- **Entry** — the exact trigger that says "buy now." Not "around here." A price, a close, an event — something a computer could check.
- **Stop** — the exact point where you admit you are wrong and exit with a small, planned loss. A **stop loss** is an order (or a firm rule) that gets you out when price reaches that point.
- **Target** — the exact rule for taking profit. A price, a percentage, or an event that says "sell now," decided in advance.
- **Size** — how much you buy, calculated from your risk, never from excitement. You learned the 1% rule in Level 1: on a $10,000 account, a single trade should not be able to lose more than about $100.

> **RULE**
> If a rule cannot be followed by a robot, it is not finished. "Buy when it looks strong" fails the test. "Buy when the price closes back above its 20-day moving average" passes it.

From a Vague Idea to Testable Rules

Most systems start as a sentence like "I like buying strong stocks when they dip a little." That sentence contains a real idea, but it cannot be tested, because "strong," "dip," and "a little" mean different things on different days. Building a system means turning every fuzzy word into a number.

Here is that sentence turned into a complete, testable rule set. It uses **moving averages**, which you met in Level 1: a moving average is the average price over the last so-many days, drawn as a line on the chart. A 20-day moving average is just the average closing price of the last 20 days.

The Moving-Average Pullback System (an example, not a recommendation)

- **Market:** U.S. stocks and ETFs, judged on the daily chart.
- **Trend filter (part of the setup):** Only trade when the price is above its 200-day moving average. That line separates "generally rising" from everything else. Above it, we play. Below it, we sit out.
- **Setup:** The price pulls back — dips down — until it touches the 20-day moving average.
- **Entry:** If the day after the touch closes back above the 20-day moving average, buy at the next morning's open.
- **Stop:** If the price closes below the lowest low of the pullback, sell the next morning. That low is the line that proves the dip failed.
- **Target:** Sell when the price has risen 10% from your entry price. If the stop rule triggers first, you are already out.
- **Size:** Risk 1% of the account. Divide $100 (on a $10,000 account) by the distance from entry to stop to get your share count.

Watch the size rule work. Say you buy at $50 and the pullback low is $46. Your risk per share is $50 − $46 = $4. Your allowed risk is $100. So you buy $100 ÷ $4 = 25 shares, costing 25 × $50 = $1,250. If the stop triggers, you lose about 25 × $4 = $100 — painful, planned, and survivable. If the target hits at $55, you gain 25 × $5 = $125.

Notice what this rule set leaves out: news, opinions, and your mood. That is the point. Now the idea can be tested, because every trade it would ever take is fully specified in advance.

Backtesting: Replaying History With Your Rules

Backtesting means applying your finished rule set to old price data, trade by trade, exactly as if you had been there — and recording what would have happened. You are asking one question: "If I had followed these rules, with real discipline, over the last several years, what would the results have been?" There are two honest ways to do it.

By hand, on charts

Open a chart, scroll back a few years, and move forward one candle at a time, covering up what comes next. Every time your setup and entry trigger appear, write the trade down: date, entry price, stop, target, which one was hit first, and the profit or loss. This is slow — a few hours for fifty trades — but it teaches you things software never will. You see every ugly loss your system takes. You feel how boring the quiet stretches are.

With software

Charting platforms and backtesting tools can run your rules over thousands of trades in seconds. That speed is a gift and a danger. The gift is a big sample: results from 500 trades mean far more than results from 15. The danger is that software makes it effortless to tweak the rules again and again until the past looks perfect — a trap covered below. Either way, one rule applies to both methods:

> **RULE**
> Your test must include real-world costs. Subtract commissions and fees, and assume slightly worse fills than the perfect prices on the chart. Getting filled a little worse than the ideal price is called **slippage**, and it happens on real trades every day. A system that only works with perfect fills and zero costs does not work.

The Numbers That Matter

A backtest produces a pile of trades. Four numbers turn that pile into a verdict.

- **Win rate** — the percentage of trades that made money. If 40 of 100 trades won, the win rate is 40%.
- **Average win** — the typical profit on a winning trade.
- **Average loss** — the typical loss on a losing trade, written as a positive number for the math below.
- **Expectancy** — the average amount you expect to make per trade over the long run, after wins and losses are both counted. This is the single most important number in this module.

The formula is:

Expectancy = (win rate × average win) − (loss rate × average loss)

Work it with real numbers. Suppose your backtest of 100 trades shows a **40% win rate**, an **average win of $300**, and an **average loss of $150**. Most beginners see "40%" and walk away. Watch what the math says:

- Win side: 0.40 × $300 = $120 expected from the winning trades.
- Loss side: 0.60 × $150 = $90 expected to be given back on the losing trades.
- Expectancy: $120 − $90 = **+$30 per trade**.

Check it the long way. Out of 100 trades, 40 winners × $300 = $12,000 gained. 60 losers × $150 = $9,000 lost. Net result: $12,000 − $9,000 = +$3,000 over 100 trades, which is $3,000 ÷ 100 = +$30 per trade. Same answer.

Read that again, because it changes how you think about trading: **this system loses more often than it wins, and it still makes money** — because its wins are twice as big as its losses. A positive expectancy, after costs, over a large sample, is the closest thing trading has to an edge. A negative expectancy means the system loses money by design, no matter how confident it feels.

> **TIP**
> Judge a system by expectancy and sample size together. +$30 per trade over 200 tested trades is evidence. +$300 per trade over 6 trades is a story.

The Traps That Make Bad Systems Look Great

Backtesting has four failure modes that fool smart people.

Overfitting: memorizing the past

Overfitting (also called curve-fitting) means adjusting your rules again and again until they fit the old data beautifully — so specifically that they describe that one stretch of history instead of anything repeatable.

Meet Marcus. He backtests a stock over two years and his simple system makes a modest profit. Not good enough, he thinks. He adds a filter: only buy on Tuesdays. Better. Only when a certain indicator sits

between 41 and 43. Better still. Skip the first week of every month. Each change is small, and each one "improves" the result, until his final backtest shows an 88% win rate and huge returns. Marcus puts real money in — and the system falls apart within two months. Nothing broke. The system never worked. His filters had quietly memorized two years of one stock's history, the way a student who memorizes last year's exam answers "aces" last year's exam and fails this year's. The market never repeats exactly, so rules carved to fit one exact past fit nothing else.

The defense is suspicion: the more rules and the more precise the numbers (why 41 to 43? why Tuesdays?), the more likely you are looking at a memory, not an edge. Simple systems with few rules are harder to fool yourself with.

Survivorship bias: testing only on the survivors

Survivorship bias means your test data quietly leaves out the losers. If you backtest "stocks in the S&P 500" using today's list, you only test companies healthy enough to still be in the index. The ones that failed, shrank, and got removed — the ones your system might have bought on the way down — are missing. The test looks better than real life because the graveyard was edited out. Watch for it whenever you test on a list of stocks chosen today.

Look-ahead bias: accidentally using the future

Look-ahead bias means your test used information that was not available at the moment of the trade. The classic version: a rule that says "buy at today's close if today closes above the average" — in real life you cannot know the closing price until the close happens, so that fill was impossible. Another version is trading on earnings numbers before the company announced them, because the database shows the final, later-corrected figures. Any backtest that looks impossibly good deserves the question: "Did I cheat with the future somewhere?"

Tiny samples: small numbers lie

Ten trades prove almost nothing. Flip a fair coin ten times and getting seven heads is completely ordinary — it does not mean the coin is rigged, and forty flips later the count usually evens out. A system that won 7 of its first 10 trades may be great, average, or bad; the sample is too small to say. Treat anything under about 30 trades as a rumor, and 100 or more as the start of real evidence.

Forward Testing: Paper First, on Purpose

Even a clean backtest only proves the system fit the past. **Forward testing** means running the system live, in real time, with a **paper account** — a practice account with pretend money, which you used in Level 1 — to see whether you and the system can actually execute it in the present.

Do it with a commitment made in advance: "I will paper-trade this system for its next 30 trades, exactly by the rules, and journal every one." No skipping the boring setups. No quietly widening a stop "just this once." The forward test examines two things at once — whether the edge still shows up in current markets, and whether *you* can follow rules when trades lose three times in a row. When the 30 trades are done, compare the paper results to the backtest: similar win rate? similar average win and loss? Roughly similar is a pass. Wildly worse is information — find out why before real money is involved.

When to Declare a System Broken

Every system has losing stretches. A system with a 40% win rate can honestly lose six trades in a row; that is arithmetic, not failure. So define "broken" in writing *before* the losing streak arrives, while you are calm.

The anchor is **drawdown** — the drop from your account's highest point to its lowest point during a bad stretch. Your backtest tells you the worst drawdown the system suffered in testing. Use it:

- **The drawdown rule:** If live (or paper) trading pushes the drawdown clearly beyond the worst in your backtest — say the test's worst was $1,800 and real trading sinks past $2,200 without recovering — stop and review the system. The market may have changed in a way the rules cannot handle. Continuing past that line is no longer "trusting the system"; it is hoping.
- **The rule-break rule:** If you find you cannot follow the rules — you keep moving stops, skipping entries, doubling size to win it back — the broken thing is the operator, not the system. Stop, return to paper, and fix the behavior first. A system you cannot follow is useless to you even if its backtest is perfect.
- **The conditions rule:** If the thing the system depends on disappears — a pattern built on a market behavior that no longer occurs — the system is done, and loyalty will not revive it.

Stopping a broken system is not quitting. It is the skill. The traders who survive can say "the evidence changed, so I stop," park the system, and go back to testing with small or pretend money.

Common Mistakes at This Level

- **Testing a feeling.** "Buy strong stocks on dips" cannot be backtested. If it cannot be written as exact rules, it can be neither proven nor disproven.
- **Tweaking until the past is perfect.** Every extra filter raises the odds you have built a memory of history that fails live.
- **Ignoring costs.** Commissions, fees, and slippage turn many pretty backtests negative. Always subtract them.
- **Trusting 12 trades.** A tiny sample cannot separate skill from luck. Demand dozens of trades, ideally a hundred-plus.
- **Changing the rules mid-test.** Adjusting the system halfway through a forward test means you have tested nothing. Finish the test, then change one thing and test again.
- **Confusing a losing streak with a broken system.** Losing stretches are built into the math. Declare a system broken by the written drawdown rule — not by frustration.
- **Skipping the forward test.** A backtest shows the system fit yesterday. Only real-time paper trading shows it — and you — can perform today.

Chapter Summary

- A system is five written rules — setup, entry, stop, target, size — specific enough that anyone (or any robot) would take the same trades.
- Vague ideas become testable by turning every fuzzy word into a number, as in the moving-average pullback example.
- Backtesting replays your rules over old data, by hand for understanding or with software for sample size.
- Honest tests include commissions, fees, and slippage.
- Expectancy — (win rate × average win) − (loss rate × average loss) — is the verdict number. A 40% win rate with $300 average wins and $150 average losses expects +$30 per trade: a system can lose more often than it wins and still make money, if its wins are bigger than its losses.

- Overfitting, survivorship bias, look-ahead bias, and tiny samples are the four traps that make weak systems look strong.
- Forward testing on paper for a set number of trades — 30 is a good commitment — proves the system and the trader in real time.
- Declare a system broken by a rule written in advance: drawdown clearly beyond the backtest's worst, or an operator who cannot follow the rules.

Check Yourself

1. What are the five parts every trading system must define?
2. In the pullback example, you buy at $50 with a stop distance of $4 per share and $100 of allowed risk. How many shares do you buy, and what do you lose if the stop triggers?
3. A system wins 40% of the time, its average win is $300, and its average loss is $150. What is its expectancy per trade?
4. What is overfitting, and why does it fail when real money is used?
5. Your backtest's worst drawdown was $1,800, and live trading has now drawn down past $2,200. According to this module, what do you do — and what do you *not* conclude from a simple six-trade losing streak?

Answers: 1) Setup, entry, stop, target, and size — each written exactly, with no wiggle room. 2) $100 ÷ $4 = 25 shares; if the stop triggers you lose about 25 × $4 = $100. 3) (0.40 × $300) − (0.60 × $150) = $120 − $90 = +$30 per trade. 4) Overfitting is tuning rules until they memorize one stretch of past data; live markets never repeat that exact past, so the memorized rules stop working. 5) Stop trading the system and review it — the pre-written drawdown rule has been broken. A six-trade losing streak alone proves nothing, because a 40%-win-rate system can honestly lose six in a row.

> **RULE**
> Prove it on old data, prove it on paper, then — and only then — prove it with small real money. Any order other than that one is just paying the market to test your system for you.



AA2-14

GAMMA & DEALER POSITIONING

The hidden hand on price — how dealer hedging pins price or accelerates it.

Alpha Academy Level 2 · Team Alpha Trading

Gamma & Dealer Positioning: The Hidden Hand on Price

In Level 1 (AA-12) you met the Greeks — the handful of numbers that describe how an option behaves. Most students learn them, pass the quiz, and move on. But one of those Greeks quietly pushes the entire stock market around every single day. Not because traders believe in it. Because the biggest players in the options market are *forced* to react to it, with real money, whether they want to or not.

That Greek is **gamma**. The forced reactions belong to **dealers**. And when you add up all of that forced buying and selling, strike by strike, you get a map called **gamma exposure** — **GEX** for short.

In this module you will learn, in plain English: who dealers are, why they must buy and sell stock all day long just to protect themselves, what positive and negative gamma feel like from the inside, and what traders mean by the gamma flip, the call wall, and the put wall. By the end, you will understand why some days price feels glued inside a range — and why other days it slides like it is on ice.

> **NOTE**
> This is education about how the market works under the hood. GEX is an *estimate*, not a measurement, and it is never a prediction. The last body section of this module is an honest list of its limits. Read that section before you ever trust a gamma chart.

A Short Refresher: Gamma From Level 1

You need two Level 1 ideas, so let's restate them plainly.

Delta is how much an option's price is expected to move when the underlying stock moves $1. A call with a delta of 0.30 should gain about $0.30 if the stock rises $1. Traders also use delta as a share counter: one contract controls 100 shares, so a 0.30-delta call behaves like owning about 30 shares of the stock.

Gamma is how fast delta itself changes when the price moves. If a call has a delta of 0.30 and a gamma of 0.02, then after a $1 rise the delta becomes about 0.32. After a $5 rise, about 0.40. Gamma is biggest for options that are **at the money** (strike price right near the current stock price) and it grows violently as expiration gets close — a fact that becomes very important when we reach 0DTE options later in this module.

Hold onto one sentence: **gamma measures how quickly someone's stock exposure changes as price moves.** Now let's meet the "someone."

Meet the Dealer: The Other Side of Almost Every Trade

When you tap "buy" on a call option in your app, who sells it to you? Occasionally another ordinary trader. But most of the time, the other side is a **dealer** — also called a **market maker**. A dealer is a professional firm whose business is standing ready to buy and sell options all day, on thousands of strikes, quoting prices nonstop. In AA-04 and AA-06 you learned the **bid** (what buyers offer) and the **ask** (what sellers demand). Dealers live on the small gap between them, the **spread**. Buy at the bid, sell at the ask, pocket pennies — millions of times a day.

Here is the part beginners miss: **the dealer does not want your bet.** The dealer has no opinion about whether the stock goes up or down and does not want one. But the moment the dealer sells you a call, the dealer owns a problem. If the stock rockets higher, that short call loses money fast. The dealer's whole business depends on *not* caring about direction — so the dealer must cancel the risk out.

Cancelling risk out is called **hedging**: taking an offsetting position so that price moves stop hurting you. For options, the offsetting position is the stock itself. Sell calls (a bullish exposure for the buyer, a bearish risk for the seller) and you buy shares to balance it. When a dealer's total exposure adds up to roughly zero — so small price moves neither help nor hurt — the dealer is **delta neutral**.

> **SETUP**
> Two words you will see everywhere in this subject. A dealer holding *bought* options is **long gamma**. A dealer holding *sold* options is **short gamma**. That one sign — long or short — decides whether dealer hedging calms the market down or stirs it up. Keep it in mind through everything that follows.

Dealer Hedging in Slow Motion

Let's watch one hedge happen with real numbers. Every step is simple arithmetic — follow it slowly, because this one story explains the entire module.

The setup. SPY (the most popular S&P 500 ETF, from AA-16) is trading at $500. This morning, the public — thousands of traders like you — buys **10,000 SPY $510 call contracts** expiring in about a month. Dealers sold most of them, so dealers are now short 10,000 calls they never wanted. These calls have a **delta of 0.30** and a **gamma of 0.02**.

Step 1 — the opening hedge. Each short call exposes the dealer like being short 30 shares (0.30 × 100 shares per contract). Across 10,000 contracts, that is 10,000 × 100 × 0.30 = **300,000 shares of bearish exposure**. To become delta neutral, the dealer **buys 300,000 shares of SPY**. Notice: this buying happened for no reason except hedging math. Nobody at the dealer firm predicted anything.

Step 2 — price rises. An hour later SPY is $505. Gamma does its work: delta is now 0.30 + (5 × 0.02) = **0.40**. The dealer's short calls now behave like 400,000 shares of exposure — but the hedge is still only 300,000 shares. The dealer is no longer neutral, so the dealer **buys 100,000 more shares** — buying *into* a rising market, pushing price up a little more.

Step 3 — price falls instead. Suppose SPY drops to $495. Delta shrinks to 0.30 − (5 × 0.02) = **0.20**. Exposure is now 200,000 shares, but the hedge is 300,000. Too much hedge. The dealer **sells 100,000 shares** — selling *into* a falling market.

Read Step 2 and Step 3 again. A dealer who is short gamma is forced to **chase price**: buy as it rises, sell as it falls. That flow adds fuel to moves in both directions. Now flip the story: if the dealer were *long* those calls instead, every hedge would go the other way — sell shares as price rises, buy shares as price falls — leaning *against* every move and calming it down.

One strike, one expiration, one dealer — and we already manufactured hundreds of thousands of shares of mechanical buying and selling. Now imagine every strike, every expiration, every major stock and index, all day, every day. That is the hidden hand on price.

Gamma Exposure (GEX): The Map of That Pressure

Traders want to know the *total* of all that hedging pressure, so they build an estimate called **gamma exposure**, or **GEX**.

Here is the plain-English definition: **GEX is an estimate, for each strike price, of how much stock dealers will be forced to buy or sell if price moves $1 — based on the options sitting open at that strike. Open**

interest (from AA-11) is the number of option contracts at a strike that are still open — not yet closed or expired. Lots of open interest at a strike means lots of potential hedging flow anchored there. Small open interest means the strike barely matters.

Add up the gamma at a strike, multiply by the shares involved and by the price, and you get a dollar figure: "dealers may need to buy or sell roughly this many dollars of stock per $1 move near this strike." Stack those figures strike by strike and you have the GEX map.

The single most important output is the **sign of the total**:

- **Positive total gamma** — dealers, in total, are *long* gamma. Their hedging leans against moves: buy dips, sell rallies.
- **Negative total gamma** — dealers, in total, are *short* gamma. Their hedging chases moves: sell dips, buy rallies.

Nobody can see a dealer's actual book, so GEX is always a model built on assumptions about who holds what — a point we return to honestly at the end. First, let's feel what each environment is like.

Positive Gamma: The Market With Shock Absorbers

Imagine a day when the GEX map shows dealers long gamma overall, with a huge pile of call open interest at SPY $500 and a huge pile of put open interest at $490. SPY opens at $496.

Mid-morning, buyers push SPY up to $499. As price rises toward that giant $500 call strike, dealer exposure shifts and their hedging math says *sell shares*. Real selling appears — not because anyone turned bearish, but because neutrality demands it. The rally stalls at $499 and fades. In the afternoon, sellers push SPY down to $491. Near the big $490 put strike, hedging math flips: dealers must *buy shares*. Real buying appears, and the dip bounces. SPY closes at $495, having spent the whole day inside a $490–$500 box.

Traders call a day like this **pinned**. The characteristics of a positive-gamma environment:

- Moves get **dampened** — pushes in either direction run into mechanical counter-flow.
- Price **gravitates toward the biggest strikes**, especially as expiration approaches.
- Breakouts tend to **fail**; ranges tend to **hold**.
- Overall volatility tends to be **lower**.

Negative Gamma: The Market on Ice

Now the opposite day. The public has been buying options aggressively — lottery-ticket calls on the way up, protective puts on the way down — and dealers, in total, are *short* gamma. SPY opens at $478, already below the level where the map flips negative (more on the flip shortly).

A disappointing headline hits at 10 AM and SPY slips to $474. That seems small — but every dollar down increases the dealers' bearish exposure from all the puts they sold, and their hedge math says *sell more shares*. Their selling pushes SPY to $470 faster than the headline alone would have. Buyers try a bounce to $473; it stalls, slips, and now the call side joins in — as price falls away, hedges unwind the other way too, and by early afternoon SPY has slid to $466 in a series of long, fast candles. Nothing about the news got worse after 10 AM. The *plumbing* got worse.

The characteristics of a negative-gamma environment:

- Moves get **amplified** — dealer hedging adds fuel in the direction price is already going.
- Breakouts tend to **follow through**; support and resistance break more easily.
- Candles get **longer and faster**; sudden air pockets appear.
- Overall volatility tends to be **higher**.

Feature	Positive gamma	Negative gamma
Dealer hedging	Buys dips, sells rips	Sells dips, buys rips
Price behavior	Ranges, pins, failed breakouts	Trends, fast moves, follow-through
Volatility tendency	Lower, calmer	Higher, jumpier
Road feel	Shock absorbers	Ice

> **TIP**
> You do not need a paid chart to start noticing this. Watch a few expiration Fridays (when option open interest is largest) and compare how price behaves around the day's biggest strikes with a random quiet Tuesday. The stickiness near big strikes is real, and once seen, it cannot be unseen.

The Gamma Flip Level

If total gamma is positive at some prices and negative at others, there must be a price where it crosses zero. That crossing point is the **gamma flip** (also called the zero-gamma level).

Plainly: **the gamma flip is the estimated price level where the market's weather changes** — above it, dealer hedging tends to dampen moves (positive gamma); below it, dealer hedging tends to amplify moves (negative gamma). For the big indexes, "above the flip = calmer, below the flip = wilder" is the standard way traders use it.

Treat the flip as a **zone, not a line**, and as an estimate that moves day to day as options open and close. It is not support or resistance by itself — it is a regime marker: it tells you *what kind of day to expect*, not where price will turn.

Call Walls and Put Walls

Remember that open interest piles up unevenly. On any given day, one strike usually holds far more call open interest than any other. Traders call that strike the **call wall**: the strike with the largest call gamma on the map. The **put wall** is the matching idea on the downside: the strike with the largest put gamma.

Why do walls matter? Because hedging flow is anchored where the open interest is. As price climbs toward the call wall from below, in a positive-gamma environment the dealer counter-flow gets strongest right there — rallies often stall at the wall as if it were a ceiling. As price sinks toward the put wall, dealer buying often cushions the fall, as if it were a floor.

The honest wording matters: walls act like ceilings and floors *as a tendency, because of hedging flow* — not because they are magic lines. On a heavy news day, or in a strongly negative-gamma environment, price can slice straight through a wall, and when it does, the hedging on the other side can make the move even faster. A wall is a place where the fight is likely to be hardest — not a guarantee about who wins.

0DTE: Gamma on a Hair Trigger

0DTE means options that expire **today** — "zero days to expiration" (you met them in AA-14). Same-day options have become an enormous share of index option trading — on many days, roughly half of SPX option volume. And 0DTE is where gamma gets extreme.

Recall from the refresher: gamma explodes as expiration nears. For an at-the-money option with a few hours left, a $2 move in the index can swing its delta from about 0.10 to about 0.90 — the option goes from "barely cares" to "basically is the stock" in one candle. Every dealer hedge attached to those contracts has to adjust by enormous amounts, all concentrated into the same final hours.

Two late-day patterns follow from this, and experienced index traders plan around both:

- **The hard pin.** If price drifts near a giant 0DTE strike in the afternoon, hedging can glue it there into the close, because every small wiggle triggers offsetting flow. Afternoon ranges near a huge strike can go eerily quiet.
- **The sudden whip.** If price breaks *away* from that strike decisively, the same math runs in reverse at maximum speed — hedges unwind and rebuild in minutes, and a normal-looking move can turn into a vertical one in the last hour.

The lesson is not "trade 0DTE." The lesson is that on modern markets, **the final hour has different physics than the first hour**, and gamma is the reason.

The Honest Limits of the Map

Everything above is real mechanics — dealers truly do hedge, and the flows truly are large. But a GEX chart is not a photograph of dealer books. It is a model, and you deserve to know exactly where it can be wrong.

- **It is built on yesterday's open interest.** Open interest is published after the close. Today's brand-new positioning — especially 0DTE positioning opened this morning — is invisible to a standard GEX calculation until tomorrow.
- **It guesses who holds what.** The classic model assumes dealers are on the opposite side of public trades, and makes simplifying assumptions about whether calls and puts were bought or sold to open. Different data providers make *different* assumptions — so two honest GEX charts can disagree, sometimes even about which side of the flip the market is on.
- **Dealers hedge in more places than you can see.** Futures, swaps, and other instruments all absorb dealer risk off-screen. The options map shows a big part of the plumbing, never all of it.
- **It says nothing about news.** A central-bank surprise or a shock headline overwhelms hedging flow in seconds. Gamma describes the road surface; it does not stop a truck from driving off it.
- **It is context, not a signal.** GEX tells you how price is *likely to behave* — sticky or slippery. It never tells you a direction price *will* go. Anyone selling it as a crystal ball is selling you something.

> **RISK**
> The most dangerous beginner error with GEX is confidence. A beautiful, precise-looking chart ("flip: 5,912.4") invites you to bet as if the number were measured. It was not — it was estimated from stale data and assumptions. Size trades as if the map could be wrong today, because some days it is.

Common Mistakes at This Level

- **Treating walls and the flip as exact lines.** They are zones estimated from a model. Price crossing a wall by a few cents has not "broken the map."
- **Using GEX as a lone buy/sell signal.** Gamma describes behavior (sticky vs. slippery), never direction. It must be combined with your own analysis, as the next module shows.
- **Assuming the chart is live truth.** Standard GEX uses yesterday's open interest and a vendor's assumptions. Two vendors can disagree — check what your source assumes.
- **Forgetting dealers are neutral, not prophetic.** Dealer selling is hedging math, not "smart money dumping." Reading intent into mechanical flow leads to terrible conclusions.
- **Ignoring the calendar.** Gamma effects are strongest near expirations and weakest when open interest is thin. A GEX map matters most on the days it is biggest.
- **Trading bigger because the map looks clear.** A confident-looking map plus a wrong assumption is how Level 2 students blow up in the final hour of a 0DTE day.

Chapter Summary

- **Gamma** is how fast delta changes as price moves; it is largest at the money and explodes near expiration.
- **Dealers (market makers)** sell most options to the public and do not want directional risk, so they **hedge** with the underlying stock to stay **delta neutral**.
- A dealer who is **short gamma** must chase price — buy as it rises, sell as it falls. A dealer who is **long gamma** hedges the opposite way — sell rises, buy dips.
- **GEX (gamma exposure)** estimates, strike by strike, the hedging flow dealers will produce per $1 move, based on open interest.
- In **positive gamma**, hedging dampens moves: ranges hold, breakouts fail, price pins near big strikes.
- In **negative gamma**, hedging amplifies moves: trends run, levels break, volatility rises.
- The **gamma flip** is the estimated level where total gamma changes sign — a weather marker, not a support line. The **call wall** and **put wall** are the strikes with the largest call and put gamma — hedging-flow ceilings and floors, as tendencies only.
- **0DTE** options concentrate enormous gamma into the final hours, producing hard pins and sudden whips.
- GEX is an **estimate** built on assumptions and yesterday's data. Different models disagree. It is context for your plan — never a prediction by itself.

Check Yourself

1. In one sentence, what is gamma?
2. A dealer sells 5,000 call contracts with a delta of 0.40. How many shares must the dealer buy to start out delta neutral?
3. In a positive-gamma environment, what do dealers tend to do when price dips and when it rips — and what does that do to price movement?
4. What is the gamma flip, and what changes when price moves from above it to below it?
5. Give two reasons a GEX chart is an estimate rather than a fact.

Answers: 1) Gamma is how fast an option's delta changes when the underlying price moves — how quickly stock exposure grows or shrinks. 2) 5,000 contracts × 100 shares × 0.40 delta = 200,000 shares. 3) Dealers buy dips and sell rips; the flow leans against every move, so ranges hold, breakouts fail, and volatility tends to fall. 4) The flip is the estimated price where total dealer gamma changes sign; above it hedging tends to dampen moves, below it hedging tends to amplify them. 5) Any two of: it is built on yesterday's published open interest; it assumes who is long and who is short rather than observing dealer books; different providers' assumptions produce different charts; dealers also hedge in instruments the map cannot see.

> **RULE**
> Gamma tells you how the market is likely to *behave* — sticky or slippery — never where price *will go*. Respect the map, doubt the map, and never let it trade for you.



AA2-15

TRADING WITH GEX LEVELS

The practical framework — the flip, the walls, and trading the environment.

Alpha Academy Level 2 · Team Alpha Trading

Trading With GEX Levels: A Practical Framework

The previous module (AA-L2-14) explained the machinery: dealers hedge, hedging creates flow, and **gamma exposure — GEX** — maps where that flow concentrates. This module is about the next question, the practical one: *what do you actually do with the map at 9:25 in the morning?*

The short answer is the sentence this whole framework hangs on: **you trade the environment, not the level.** GEX levels are not buy and sell buttons. They are a weather report that tells you which of your own tools is likely to work today — range tools or trend tools — and where the fights are likely to happen. Your entries still come from your charts, your plan, and your risk rules from Level 1 (AA-19 and AA-21). The map just helps you choose the right game before the opening bell.

> **NOTE**
> Everything here is a framework for thinking, taught for education. Words like "tends to" and "often" appear constantly in this module on purpose. Gamma describes tendencies in how price *behaves*. It never makes any single trade likely enough to skip your plan, your confirmation, or your stop.

Before the Open: Build Your Map

Professionals do this in about five minutes, before the market opens, while they can still think calmly. You are marking four things on your chart, all from the prior close's GEX map:

- **The gamma flip** — the estimated level where total dealer gamma changes sign. This is your regime line: above it, expect the market's shock absorbers to be on; below it, expect ice.
- **The call wall** — the strike with the largest call gamma. A hedging-flow ceiling, as a tendency.
- **The put wall** — the strike with the largest put gamma. A hedging-flow floor, as a tendency.
- **The other major gamma strikes** — any remaining strikes with unusually large gamma between the walls. Think of these as secondary shelves where flow concentrates.

Then write one sentence in your journal before the open: *"Today SPY opens above/below the flip, between the put wall at ___ and the call wall at ___."* That sentence decides which playbook you are running today. Everything else in this module is the two playbooks.

Trade the Environment, Not the Level

Positive Gamma: The Range Playbook

When price is above the flip and total gamma is positive, dealer hedging leans against every move. Price gets bought on dips and sold on rips by people who do not care about direction at all. In that weather, these tendencies reward patience:

- Moves toward the walls tend to **slow down and stall** as hedging flow builds against them.
- Breakouts beyond the walls tend to **fail** and snap back into the range — the counter-flow is real money.
- **Fading the extremes** — selling strength near the call wall after your own chart shows the push exhausting, buying weakness near the put wall after a bounce confirms — tends to work *better than usual*. "Better than usual" is the whole claim. It is a tilt, not a promise.
- Because ranges compress, targets should be **modest**: the middle of the range is a fine destination. Expecting a range day to hand you a trend-sized move is how range traders give their winnings back at

2 PM.

Negative Gamma: The Trend Playbook

When price is below the flip and total gamma is negative, dealer hedging chases price: selling joins sell-offs, buying joins rallies. In that weather, the rules invert:

- Moves tend to **follow through**. A break of a chart level is more likely to keep going, because hedging flow is pushing the same way.
- **Follow momentum instead of fading it.** Fading a strong move in negative gamma means standing in front of mechanical flow — the classic way Level 2 students get run over.
- Expect **air pockets**: price can travel several strikes quickly with little trading in between. Do not assume a level will "catch" price just because it did yesterday.
- Use **smaller position size and wider stops** than your range-day defaults. The same dollar risk with a wider stop means fewer shares or contracts — do the arithmetic *before* the trade, not during it. In this weather, normal-sized positions get stopped out by normal-sized noise, and tight stops get run over by normal-sized follow-through.

Decision	Above the flip (positive gamma)	Below the flip (negative gamma)
Default expectation	Range, pins, failed breaks	Trends, follow-through, air pockets
Favored style	Fade extremes with confirmation	Trade with momentum
Position size	Your normal plan size	Smaller than normal
Stops	Normal distance	Wider, with size cut to match
Targets	Middle of the range	Next major level, let it run

> **TIP**
> The flip can be crossed during the day, and the weather can change with it. If SPY opens above the flip and then loses it with conviction mid-morning, your playbook is allowed — required, actually — to change with it. The map is redrawn by price itself.

Worked Example: A Positive-Gamma Range Day

Here is a full paper example, start to finish, with SPY numbers. Read it as a demonstration of the *process*, not as a trade recommendation.

The map at 9:00 AM. Yesterday's close left these levels: gamma flip **$494**, call wall **$500**, put wall **$490**. SPY is indicated to open around $496 — above the flip, mid-range. Journal sentence: *"Above the flip between 490 and 500. Range playbook. Fade extremes only, with confirmation."*

The morning. SPY opens at $496.20 and pushes up. At 10:15 it reaches $499.60, just under the call wall — and your 5-minute chart shows the push tiring: two candles with long upper wicks, the second failing to make a new high. That is your own chart's confirmation, at the map's ceiling. The range playbook allows a fade *here* — but let's say you are a buyer-side student practicing the simpler half of the playbook, so you pass and wait for the downside extreme.

The setup. At 1:30 PM SPY has faded all the way down and taps $490.40, just above the put wall. The first 5-minute candle bounces hard off the low; the next candle makes a higher low at $490.80. Confirmation, at the map's floor, in range weather. Your plan from AA-19 says risk about 1% per trade; your paper account is $25,000, so maximum risk is $250.

The trade. You buy **100 shares of SPY at $491.00** (the higher-low candle's close). Your stop goes at **$489.00** — below the put wall, because if the wall and the bounce both fail, the idea is wrong. Risk per share: $491.00 − $489.00 = **$2.00**. Total risk: 100 × $2.00 = **$200**, inside your $250 limit. Your target is the middle of the range, **$497.00**: reward per share $6.00, a planned reward-to-risk of **3 to 1**.

The outcome. SPY grinds upward all afternoon — exactly the dampened, two-way grind range weather produces — and touches $497.00 at 3:40 PM. You exit per plan: +$6.00 per share, **+$600 on 100 shares**, which is **+3R** (three times the $200 you risked). Notice what the map did and did not do. It never told you SPY *would* bounce at $490. It told you the *weather favored* bounces, so your pre-existing plan — buy confirmed bounces at major levels — was the right game today, and the wall told you where to play it and where you were wrong.

Worked Example: A Negative-Gamma Trend Day

Same student, two weeks later. Different weather, different game.

The map at 9:00 AM. Gamma flip **$494**, put wall **$480**, with another large gamma strike at **$475**. SPY will open around $488 — *below* the flip. Journal sentence: *"Below the flip. Trend playbook. No fading. Small size, wide stops, follow momentum only."*

The morning. SPY opens at $488.10, rallies weakly to $489.50, and rolls over. At 10:05 a 5-minute candle closes below $486 — a support level from your own chart that held twice last week. In range weather you might have bought that break as a fake-out. Today the playbook says the opposite: below the flip, breaks tend to be real.

The trade. Following your plan, you buy **2 SPY $480 put contracts** (from AA-11: a put gains value as SPY falls; one contract controls 100 shares) at a premium of **$2.00** per share. Total cost: 2 × 100 × $2.00 = **$400**. That $400 is also your absolute maximum loss — a bought option can never lose more than the premium (AA-11) — and it sits inside your risk limit once you add your exit rule below. Your invalidation: if SPY reclaims **$490** — back toward the flip, proving the breakdown failed — you exit the puts immediately, whatever they are worth. At SPY $490 those puts would trade around $1.20, so your planned loss is (2.00 − 1.20) × 200 = **$160**.

The outcome. The slide accelerates exactly as negative-gamma weather suggests: hedging flow joins the selling, SPY takes out $480 (the put wall offers only a brief pause) and reaches **$476** by 12:30 PM. Your $480 puts now carry $4.00 of intrinsic value (480 − 476, from AA-11) plus about $0.60 of remaining time value: roughly **$4.60**. You exit per your target rule at the next major gamma strike zone: 2 × 100 × $4.60 = **$920** received, for a profit of $920 − $400 = **+$520**, about **+3.25R** against your $160 planned risk. Same trader, same account, same risk discipline — the only thing that changed was which playbook the weather called for.

> **RISK**
> Read the two examples again and notice the trap hiding in them: both worked. Real trading includes the days the fade gets run over and the breakdown snaps back. The playbook tilts odds; it does not remove losses. If either example made you want to skip the stop or double the size, reread AA-20 on psychology before going further.

Confluence: When the Map Agrees With Your Chart

GEX levels become most useful where they **stack on top of levels you already trust** — a meeting of two independent reasons at the same price, which traders call **confluence**. Examples:

- The call wall sits at $500, which is *also* a round number, *also* last month's high, *also* where your trendline lands. One level, four reasons — hedging flow, psychology, memory, and geometry. Fights there tend to be the hardest of the day.
- The gamma flip sits right at yesterday's closing price. A morning push through it flips both the chart story *and* the gamma regime at the same price.
- A major gamma strike sits in empty chart space — no support, no resistance, nothing. That level is weaker than it looks: only one reason holds it up.

The practical rule: **rank your levels by how many independent reasons meet there.** Trade your best chart levels *harder* when the map agrees, and treat map-only levels with suspicion. And the reverse is just as valuable: when your favorite chart level has *no* gamma behind it and sits in strongly negative-gamma space, expect it to break more easily than your chart alone suggests.

When the Map Is Wrong: Invalidation Thinking

The map will be wrong some days — it is built on yesterday's open interest and assumptions about who holds what (AA-L2-14). Professionals decide *in advance* what "wrong" looks like, so they recognize it in minutes instead of donating all day. Before the open, finish this sentence for every level you marked: *"The map is wrong about this level today if..."*

- **Price blows through a wall and stays there.** A wall that matters produces a fight. If SPY slices through the $500 call wall on heavy volume and holds above it for 30 minutes, the wall is not a ceiling today — the hedging that was supposed to defend it is not there, or news is bigger than the plumbing. Stop fading it.
- **Price crosses the flip and the character doesn't change — or changes before the cross.** If SPY is above the flip but moving in violent, trending candles, the regime the map promised is not the regime you are in. Trade the tape in front of you.
- **A major news event lands.** Jobs reports, inflation prints, central-bank decisions, shock headlines: scheduled or not, real news outranks hedging flow. On those mornings, many experienced traders flatten the playbook entirely until the first move settles.
- **Your levels are all ignored at once.** One level failing is noise. The flip, both walls, and the shelves all being treated as invisible is a broken map. Put it away for the day.

Invalidation thinking is the difference between using a model and being used by one. The map is a hypothesis. Price is the experiment. When the experiment disagrees, the experiment wins — every time, immediately, without negotiation.

Risk Rules for This Style

- **The map never sets your position size — your plan does.** The 1%-per-trade guideline from AA-19 applies unchanged. Gamma may choose your *playbook*; it never raises your risk budget.
- **Size down below the flip.** Negative gamma means bigger, faster moves. Same dollar risk, wider stop, fewer shares or contracts. If the arithmetic doesn't fit your risk limit, the trade doesn't happen.
- **Levels are zones, not lines.** Enter and place stops with a buffer around walls and the flip. A stop parked exactly *on* the call wall is a stop parked where slippage goes to party.
- **Never average into a broken map.** Adding to a fade because price went *further* through a wall is doubling down on a hypothesis price already disproved. That is the single most expensive habit in this style.
- **No map trades in the final minutes of a 0DTE day unless that is your tested plan.** End-of-day gamma (AA-L2-14) makes the last half hour the most violent tape of the day. Watching it is free education; improvising in it is tuition.
- **Journal the weather, not just the trade.** Record the flip, the walls, and which playbook you ran, for every session (AA-21). After 50 sessions you will own something no vendor can sell you: your own statistics on how *your* market actually behaves in each regime.

Common Mistakes at This Level

- **Trading the level instead of the environment.** Shorting the call wall *because it is the call wall*, with no chart confirmation and no regime check, is gambling with extra vocabulary.
- **Running one playbook in all weather.** Fading everything works beautifully — until the first below-the-flip trend day collects everything back with interest.
- **Forgetting the map is stale by construction.** It was drawn from yesterday's close. This morning's 0DTE positioning is not in it, and on event days that gap is the whole story.
- **Treating a broken level as a stronger signal the other way.** Price through the call wall does not make the wall "now support by gamma law." It makes your hypothesis wrong. Reassess from zero.
- **Skipping invalidation because the setup "looks clean."** The sentence "the map is wrong if..." must exist *before* entry. Writing it after you are losing is called hoping.
- **Risking plan-sized in trend weather.** Normal size plus negative-gamma speed is how a controlled 1% loss becomes a 3% loss while the stop fills late.

Chapter Summary

- Build the map before the open: mark the **gamma flip**, the **call wall**, the **put wall**, and the major gamma strikes, then write your one-sentence regime call in your journal.
- **Trade the environment, not the level.** The map picks your playbook; your charts and plan still pick your trades.
- **Above the flip (positive gamma):** expect ranges and failed breakouts. Fade extremes with confirmation, keep targets modest, use normal size.
- **Below the flip (negative gamma):** expect trends and follow-through. Follow momentum, never fade strength, use smaller size and wider stops.

- **Confluence** — where GEX levels stack with your own chart levels — marks the strongest zones. Map-only levels are the weakest.
- Decide in advance what proves the map wrong today: a wall sliced and held, a regime that doesn't match the tape, major news, or every level ignored at once. When price disagrees with the map, price wins.
- Your risk rules do not bend for the map: plan-based sizing, zones not lines, no averaging into a broken map, and journal the weather for every session.

Check Yourself

1. What four things do you mark on your chart before the open?
2. SPY is trading above the gamma flip with positive total gamma. Which playbook are you running, and what two tendencies does it expect?
3. You buy 100 shares at $491.00 with a stop at $489.00. What is your total dollar risk, and what is it called if price later reaches $497.00 (in R terms)?
4. Name two signs that tell you the map is wrong today.
5. In negative gamma, what two adjustments do you make to a trade compared with your range-day defaults — and why?

Answers: 1) The gamma flip, the call wall, the put wall, and the other major gamma strikes. 2) The range playbook: expect moves toward the walls to stall and breakouts to fail, so you fade extremes only with chart confirmation and keep targets modest. 3) Risk is ($491.00 − $489.00) × 100 = $200 total; reaching $497.00 gains $6.00 per share = $600 = +3R. 4) Any two of: price slices through a wall on heavy volume and holds beyond it; the tape's character doesn't match the regime the map promised; a major news event overwhelms hedging flow; every marked level is ignored at once. 5) Smaller position size and wider stops — because moves are faster and larger in negative gamma, so the same dollar risk requires more room and less size.

> **RULE**
> The map is the weather; your plan is the route. Check the weather every morning, dress for it, drive your own route — and when the sky disagrees with the forecast, believe the sky.



AA2-16

LONG-TERM INVESTING

The other half of wealth — compounding, allocation, and staying the course.

Alpha Academy Level 2 · Team Alpha Trading

Long-Term Investing & Portfolio Building: The Other Half of Wealth

You finished Level 1. You know what stocks, options, and futures are, how to place orders, how to size a trade, and how to manage risk. Almost all of that was about **trading** — buying and selling over days, weeks, or even minutes.

This module is about the other half of building wealth: **investing**. Investing means buying assets — pieces of companies, funds, bonds — and holding them for years, letting time and growth do the heavy lifting while you mostly leave them alone. Trading is a skill you practice. Investing is a machine you build once and feed regularly.

After this module you will be able to explain why trading money and investing money should live in different accounts, read a compounding table, sketch a simple portfolio mix for a life stage, rebalance it once a year, and spot the single behavior that ruins more long-term investors than any bad stock pick.

> **NOTE**
> This module is education only. It explains how long-term investing works in general. It is not financial advice, and it does not recommend any specific mix or product for you. Your situation is your own — a licensed financial professional can help you plan around it.

Two Accounts, Two Jobs

The cleanest idea in this whole module is this one: **a trading account and an investing account have different jobs, and they should hold different money.**

- Your **trading account** holds risk money — money you are actively working with, sizing carefully, and (while you learn) fully prepared to lose. Its horizon is days to weeks. Its goal is income and skill.
- Your **investing account** holds future money — money aimed at goals years away: a house, freedom at 50, retirement. Its horizon is years to decades. Its goal is slow, steady growth you do not interrupt.

Watch what happens when the two get mixed. A trader has a bad week and pulls $3,000 out of his long-term investments to "make it back." Now the long-term money is gone AND it was dragged into the riskiest possible use. Or an investor sees her index fund drop 10% in a scary month and sells it to day trade instead, locking in the loss and abandoning the plan. Both mistakes come from the same confusion: one pile of money trying to do two opposite jobs.

So split the money by job. Example: Maya has $10,000 she has saved up, separate from her emergency fund. She puts $8,000 into an investing account she will not touch for years, and $2,000 into a trading account she can genuinely afford to lose while she learns. If her trading goes badly, she loses tuition money — painful, not life-changing. If it goes well, her investing account never even noticed the drama.

> **RULE**
> Money moves one way between these accounts: from trading INTO investing (we will cover that at the end). Investing money never flows back to rescue trades.

Compounding: Time Does the Heavy Lifting

Compounding means your earnings start earning their own earnings. You put money in. It grows. Next year, the bigger pile grows. The growth itself grows. Like a snowball rolling downhill, the pile builds on its own size — and the biggest growth happens late, not early.

Here is a simple illustration. Say you invest $200 a month — about $7 a day — and it earns a **hypothetical** average of 8% a year. (Real markets do not pay a smooth 8%; some years are up 20%, some are down 15%. 8% is just a long-run-style average used here to show the math. This is an illustration, NOT a promise or a prediction.)

Years	You put in	Illustration value at 8%
10 years	$24,000	≈ $36,600
20 years	$48,000	≈ $117,800
30 years	$72,000	≈ $298,100

Now look at where the money actually came from:

- After 10 years, growth added about $12,600 on top of your $24,000.
- After 20 years, growth added about $69,800 on top of your $48,000.
- After 30 years, growth added about $226,100 on top of your $72,000 — **more than three times everything you put in, added by time itself.**

Notice the shape: the third decade adds more than the first two combined. That is compounding's personality — boring early, dramatic late. It is also why "start now, even small" beats "start later, bigger" so often. Every year you wait deletes the fattest years at the end of the curve.

> **RISK**
> Investing involves risk, including losing money. Markets have fallen 30–50% in bad stretches and taken years to recover. Compounding rewards people who can hold through those stretches — which is exactly what the rest of this module is about.

Asset Allocation: Deciding Your Mix

A **portfolio** is everything you own inside one account, looked at as a single whole. **Asset allocation** is how you split that portfolio among types of investments, called **asset classes** — mainly stocks, bonds, and cash. In AA-16 you met the tools: broad stock index funds for the stock slice, bond funds for the bond slice.

Allocation matters because the classes behave differently. Stocks grow the most over long periods but swing hard. Bonds grow less but usually wobble less, and can cushion stock drops. Cash barely grows at all, but it never crashes — it is for near-term needs and emergencies (which, per AA-23, you keep in a plain savings account, outside investing entirely).

Here are **general textbook-style patterns by life stage**. These are illustrations of how the thinking usually goes — NOT recommendations for you:

Life stage	Stocks (index funds)	Bonds	Why the tilt
Early career (20s–30s)	~80–90%	~10–20%	Decades to recover from drops, so growth leads
Mid career (40s–50s)	~60–80%	~20–40%	Still growing, but stability starts to matter
Near retirement (60s)	~40–60%	~40–60%	Less time to recover, so the cushion grows

Read the logic, not the exact numbers. Young investors lean into stocks because time heals crashes for them. Older investors hold more bonds because a crash right before they need the money is the real danger. Two honest warnings: first, even "near retirement" portfolios often keep a large stock slice, because retirement itself can last 30 years and cash and bonds alone may not keep up with rising prices. Second, the mathematically "best" mix is worthless if it scares you into selling at the bottom. The right mix is the most growth-leaning one you can actually hold through a bad year without panicking.

Core and Satellite: A Simple Way to Build

Once you pick a mix, you need a way to fill it. A popular simple structure is **core and satellite**:

- The **core** is the biggest piece: one or two broad index funds (a total US market fund or an S&P 500 fund, from AA-16). It is deliberately boring. It owns hundreds of companies at once, so no single company's disaster can wreck you.
- The **satellites** are small positions around the core: a sector fund you have studied, an international fund for variety, or a few individual stocks you researched the AA-09 way.

Example: Jordan has a $20,000 investing portfolio. He puts $17,000 (85%) into a broad index core and $3,000 (15%) into satellites — $1,500 in a technology sector fund and $1,500 spread across two individual stocks he follows closely. If a satellite goes to zero (it happens), he loses 7.5% of the portfolio, not his future. The core does the reliable compounding; the satellites are where curiosity and conviction live, in a cage sized so they cannot hurt him badly.

Rebalancing: The Once-a-Year Tune-Up

Markets move, so your mix drifts. **Rebalancing** means nudging the portfolio back to your target mix — selling a little of whatever grew too big and adding to whatever fell behind. Done once a year, on a date you pick in advance, it takes about fifteen minutes.

A worked example. Your target is 80% stocks / 20% bonds, and you start with $10,000: $8,000 in a stock index fund, $2,000 in a bond fund. Stocks have a great year (+25%) while bonds stay flat:

- Stocks: $8,000 × 1.25 = $10,000
- Bonds: $2,000 (unchanged)
- New total: $12,000, and stocks are now $10,000 ÷ $12,000 ≈ 83% — off target.

To rebalance to 80/20 on $12,000, stocks should be $9,600 and bonds $2,400. So you sell $400 of the stock fund and buy $400 of the bond fund. Done for the year.

See the quiet discipline hiding in that move? You trimmed what ran up and added to what lagged — "sell high, buy low" performed calmly, by rule, with no prediction involved. That is the whole point. Set a date

(many people use their birthday or New Year's), check the mix, and only trade if you have drifted roughly 5 percentage points or more from target. Rebalancing every week is just trading in a costume.

Dividends and DRIP: The Quiet Snowball

In AA-03 you learned a **dividend** is a cash payment a company sends its shareholders. Many broad index funds pay dividends too, gathered from all the companies inside. Dividends give the long-term investor a choice: take the cash, or put it back to work.

DRIP stands for Dividend Reinvestment Plan. With DRIP switched on, your dividends automatically buy more shares of the same investment — including fractional shares — instead of landing as cash. Example: you hold $10,000 in an index fund that pays roughly 2% a year in dividends. That is about $200 a year quietly buying more shares, which then pay their own dividends, which buy still more shares. It is compounding with an automatic feeder, and it runs whether you remember it or not.

Two honesty notes. Dividends are never guaranteed — companies and funds can cut them. And in a regular taxable investing account, dividends are generally taxed in the year you receive them, even if DRIP reinvested them. (The next module covers retirement accounts, where the tax picture is different.)

The Investor's Real Enemy: Panic

Here is a fact that surprises most traders: for long-term investors, the biggest risk is not picking the wrong fund. The funds are broadly similar. The biggest risk is **behavior** — specifically, panic-selling at the bottom.

In early 2020, the S&P 500 fell about 34% in just over a month — the fastest drop of that size in history. An investor with $50,000 watched it become roughly $33,000 in five weeks. Many sold right there, certain it would keep falling. The market then recovered and went on to new highs. The people who sold locked in a $17,000 loss forever. The people who simply held — even better, who kept their automatic monthly contributions going and bought all the way down — were made whole and then some. Same market, same funds. The difference was purely what each person did with their fear.

Practical defenses, all boring, all effective:

- Choose an allocation you can stomach (see above) — a mix you will not abandon at −30%.
- Automate contributions monthly, so buying happens in panics without asking your courage for permission.
- Check the investing account rarely. It is a garden, not a scoreboard.
- Write your plan down before you need it (AA-21's planning skill applies here too): "I hold through drops. I rebalance once a year. I do not sell headlines."

How Trading Fits: Profits Can Fund the Future

Team Alpha's philosophy is that trading and investing are partners, not rivals. Trading is the active skill: fast, demanding, uncertain. Investing is the vault: slow, patient, hard to break. The bridge between them is a habit many disciplined traders use — **sweeping a fixed slice of trading profits into the long-term investing account on a schedule.**

Example: a trader banks a $1,200 profit month. By her own written rule, 25% — $300 — moves straight into her index core, alongside her regular $200 monthly contribution. Good months feed the snowball faster; bad months, the regular $200 keeps it rolling anyway. Over years, short-term skill gets converted into long-term security instead of evaporating into bigger position sizes and lifestyle creep.

The direction matters. Profits flow trading → investing. Losses never flow the other way. The moment investing money gets pulled in to rescue a trading account, both jobs fail at once.

> **TIP**
> Set the sweep percentage in writing, in your trading plan, while you are calm — 10%, 25%, whatever fits. A rule you wrote in January makes the decision in October, when your emotions would make it badly.

Common Mistakes at This Level

- **Raiding the investing account to fund trades** — pulling long-term money in to average down a loser or "make it back." This breaks both jobs at once and is the number one way traders damage their future.
- **Panic-selling a drop** — selling the index core during a crash, turning a temporary paper loss into a permanent real one, usually right before the recovery.
- **Checking the long-term account daily** — daily watching creates daily emotions, and daily emotions create trades. This account is built to be ignored for weeks at a time.
- **Building the whole portfolio out of satellites** — ten exciting individual stocks and no core. Fun, concentrated, and one bad earnings season away from a hole compounding cannot fill quickly.
- **Stopping contributions in a crash** — canceling the automatic $200 exactly when prices are lowest. A crash is the sale aisle for a long-term buyer with decades left.
- **Expecting the illustration's smooth 8%** — real returns arrive in lumps: great years, flat years, scary years. Planning on a smooth line makes normal turbulence feel like failure.

Chapter Summary

- Trading and investing are different jobs: the trading account holds risk money for short-term skill; the investing account holds future money for long-term growth. Keep them separate.
- Compounding means your earnings earn their own earnings. In the illustration, $200/month at a hypothetical 8% average grew to ≈ $36,600 in 10 years, ≈ $117,800 in 20, and ≈ $298,100 in 30 — an illustration, not a promise.
- The biggest growth comes in the later years, so starting early matters more than starting big.
- Asset allocation is your split among stocks, bonds, and cash. General patterns tilt toward stocks when young and toward bonds near retirement — and the right mix is one you can hold without panicking.
- Core-and-satellite is a simple build: a broad index fund core (most of the money) plus small, capped positions where your research and conviction live.
- Rebalancing once a year returns the portfolio to its target mix — calmly selling a little of what grew and buying what lagged.
- Dividends paid into a DRIP automatically buy more shares, feeding compounding without any effort from you. Dividends are never guaranteed and are generally taxed yearly in a taxable account.
- The long-term investor's real enemy is panic-selling at the bottom. Defenses: a stomach-able allocation, automatic contributions, rare check-ins, and a written plan.
- Team Alpha bridge: sweep a fixed slice of trading profits into the investing account. Money flows trading → investing, never back.

Check Yourself

1. What is the difference between a trading account and an investing account?
2. In the compounding illustration, how much did you put in over 30 years, and what did it grow to?
3. Your target mix is 80% stocks / 20% bonds. After a big stock rally you check and find you are at 85/15. What does rebalancing mean doing?
4. What is a DRIP, and what does it do automatically?
5. What is usually the long-term investor's biggest enemy?

Answers: 1) They have different jobs — the trading account holds risk money worked actively over days and weeks; the investing account holds future money left to compound over years, and the two should never be mixed. 2) You put in $72,000 ($200 × 360 months), and it grew to about $298,100 in the hypothetical 8% illustration. 3) Selling some of the stock holding and buying bonds with the proceeds until you are back at 80/20. 4) A Dividend Reinvestment Plan — it automatically uses dividends to buy more shares (often fractional shares) of the same investment instead of paying you cash. 5) The investor's own behavior — panic-selling during a drop and locking in temporary losses.

> **RULE**
> Never let the trading account eat the investing account. Money in the long-term account has one job — your future — and it does not come back out to rescue a trade.



AA2-17

RETIREMENT ACCOUNTS

IRA, Roth and 401(k) in depth — and why the employer match is free money.

Alpha Academy Level 2 · Team Alpha Trading

Retirement Accounts Deep Dive: IRA, Roth & 401(k)

In AA-22 you got the quick tour of account types — cash, margin, retirement. This module slows down on the retirement family, because for most people these accounts hold the biggest money of their lives, and the rules around them reward people who understand them early.

A **retirement account** is an account with special tax advantages created by the government to encourage you to save for later life. **Tax-advantaged** means the tax rules are friendlier than a regular account — you get a tax break either when money goes in, while it grows, or when it comes out. In exchange for those breaks, the government sets rules: yearly limits on how much you can put in, and penalties if you take money out too early. Everything in this module flows from that deal.

After this module you will be able to compare a 401(k), a Traditional IRA, and a Roth IRA side by side, explain why the employer match is the best deal in all of personal finance, and make the Traditional-versus-Roth decision with simple logic instead of guesswork.

> **NOTE**
> This module is education only — it explains how these accounts generally work in the US. It is NOT tax or financial advice. Contribution limits, income limits, and rules change over time: the IRS sets the numbers each year, so always check the current year's figures and talk to a tax professional about your own situation.

Meet the Three Accounts

The 401(k) is a retirement account offered through an employer. You do not open it yourself — your job sets it up, and your contributions come straight out of your paycheck before the money ever reaches your bank account. Most 401(k)s in this module are **Traditional**, meaning money goes in before tax. (Many employers also offer a Roth version of the 401(k); the tax treatment follows the Roth rules described below, inside the employer's plan.)

An **IRA** — an Individual Retirement Account — is the opposite setup: no employer involved. You open it yourself at a broker, in minutes, and you choose the investments. IRAs come in two flavors:

- **Traditional IRA** — money goes in before tax, or with a **tax deduction**: a deduction lowers the amount of income you are taxed on this year. If you are eligible to deduct a $2,000 contribution, that is $2,000 of income the IRS pretends, for this year, you did not earn. The money then grows without yearly tax, and you pay tax when you take it out in retirement.
- **Roth IRA** — named for the senator who championed it. Money goes in **after tax**: you already paid tax on it, so there is no deduction now. In exchange, growth is not taxed each year, and **qualified withdrawals** in retirement — withdrawals that meet the IRS rules, generally including being at least 59½ with the account open at least five years — come out completely tax-free. Every dollar of growth is yours.

One sentence to hold onto: **Traditional = tax break now, taxes later. Roth = taxes now, tax break later.**

The Three Accounts, Side by Side

Question	Traditional 401(k)	Traditional IRA	Roth IRA
Where does it come from?	Your employer's plan	You open it at a broker	You open it at a broker
Money in — taxed?	No — goes in before tax	Usually no — often tax-deductible	Yes — after-tax money
Growth taxed each year?	No	No	No
Money out in retirement — taxed?	Yes — taxed as income	Yes — taxed as income	No — qualified withdrawals are tax-free
Employer match?	Yes — very common	No	No
Yearly contribution limit?	Yes — set by the IRS each year	Yes — set by the IRS each year	Yes — set by the IRS each year

Look at the middle row again, because it is the quiet superpower all three share: inside any of these accounts, your investments can grow for decades with **no tax taken out along the way**. In a regular taxable account (AA-22), dividends and realized gains get taxed along the journey. In a retirement account, the full amount keeps compounding. That one feature is why these accounts exist.

The Match: An Instant 100% Return

Many employers offer a **match**: if you contribute to your 401(k), the company adds money of its own, up to a formula — commonly something like "100% of the first 4% of pay you contribute." That extra money is real pay, offered only if you show up for it.

Run the numbers on a $50,000 salary with a match of 100% of the first 4%:

- You contribute 4% of pay: $50,000 × 4% = $2,000 for the year (about $38 a week).
- Your employer matches it dollar for dollar: another $2,000.
- You now have $4,000 invested — before the market moves a single cent.

That is an **instant 100% return** on that slice of money. No stock, no option, no trade in this entire Academy can promise you a guaranteed double on day one. If you contribute nothing, the match is $0 — the company keeps it, and you have effectively volunteered for a pay cut. Note one wrinkle: matched money may follow a **vesting** schedule, meaning it becomes fully yours over a period of time rather than instantly — check your plan's rules.

> **RULE**
> Always contribute at least enough to capture the FULL employer match. It is the first investing dollar anyone with a 401(k) should spend, before extra debt payments beyond minimums, before a trading account, before anything — a guaranteed 100% return does not exist anywhere else.

Traditional vs Roth: Pay the Tax Now, or Pay It Later?

Since the growth is sheltered in both flavors, the whole decision comes down to one comparison: **your tax rate now versus your tax rate in retirement.**

- If your rate will be **lower in retirement** (common for people in their peak earning years today), Traditional usually wins: take the deduction at today's high rate, pay the lower rate later.
- If your rate is **lower now** (common early in a career, when income is still modest), Roth usually wins: pay the small tax now, and never pay tax on that money or its growth again.

A worked example keeps it honest. Say you put $5,000 into an account and, over the years, it grows to $20,000. (Illustration of growth only — the account type does not change what the investments earn.)

- **Traditional, 22% bracket now, 12% in retirement:** the $5,000 deduction saves you $5,000 × 22% = $1,100 in taxes today. Later, the $20,000 withdrawal is taxed at 12%: $20,000 × 12% = $2,400. Total tax picture: saved $1,100, paid $2,400.
- **Roth, 12% bracket now:** the $5,000 went in after tax — you already paid tax on the earnings you contributed, at your current 12% rate. Later, the whole $20,000 comes out with $0 tax. Total tax on the back end: nothing, ever, including on $15,000 of growth.

Same money, same growth — the winner is decided entirely by which rate, now or later, is smaller. Nobody knows their exact future rate (tax laws change), which is why many people end up using both across a career: Roth in the lean early years, Traditional in the fat middle years. That is a reasonable pattern to understand, not a rule to follow blindly.

> **NOTE**
> This is the simplified logic, taught for education. Real decisions also involve income limits on who can deduct or contribute, state taxes, and your full picture. A tax professional can model your actual numbers — this module cannot.

The Catch: Early-Withdrawal Penalties

Retirement accounts are a deal, and the deal has an enforcement clause: the money is for retirement. In most cases, taking money out of a Traditional account before age 59½ means you pay **regular income tax PLUS a 10% early-withdrawal penalty** on the taxable amount. That combination is steep on purpose — it is the government making sure the tax break is used for its intended job.

Feel it in dollars. You are 45 and pull $10,000 out of a Traditional IRA, and you are in the 12% tax bracket:

- Income tax: $10,000 × 12% = $1,200
- Early-withdrawal penalty: $10,000 × 10% = $1,000
- Total gone to the IRS: $2,200 — you keep $7,800 of your $10,000.

And the true cost is worse than $2,200: the entire $10,000 also stops compounding for your retirement, a loss the previous module showed can be worth several times the amount taken.

One genuine Roth feature worth knowing: because Roth **contributions** were already taxed going in, the IRS generally lets you withdraw the contribution money itself (not the growth on it) at any time without tax or penalty. The growth is what stays locked under the early-withdrawal rules. Treat that as an emergency pressure valve that exists — not as a strategy. Money pulled out still loses its tax-free compounding forever.

> **RISK**
> The rules and exceptions around early withdrawals are detailed — there are exceptions for specific hardships, first homes, disability, and more, and each has conditions. Do not rely on this summary for a real withdrawal. Check the IRS rules or ask a tax professional before touching retirement money early.

Trading Inside a Retirement Account

You can absolutely invest inside these accounts — the previous module's index core lives happily in an IRA. But trading is a different story. Brokers place firm limits on retirement accounts:

- **No margin.** You cannot borrow money inside an IRA, so margin strategies from AA-13 and AA-22 simply do not exist there.
- **Options are restricted.** Brokers typically allow only covered and defined-risk options in IRAs — covered calls, cash-secured puts, and defined-risk spreads — where the worst case is known in advance. Naked (undefined-risk) options are generally not permitted.
- **Cash-style settlement.** Without margin, rapid-fire trading runs into the cash-account settlement rules you met in AA-22 — money from a sale needs to settle before it can be reused carefully.

Even where some trading is possible, day trading a retirement account is usually the **wrong tool for the job**, for three plain reasons. First, the account's superpower is decades of untaxed compounding; heavy churn trades that superpower for short-term excitement. Second, the guardrails fight you: no margin, limited options, settlement friction — the strategies from your trading account mostly do not fit inside. Third, losses inside an IRA give you nothing back: in a taxable account, losses can sometimes offset gains at tax time, but a loss inside a retirement account is just a loss, shrinking the one pile of money with the friendliest tax treatment you will ever get. Let the trading account be the arena. Let the retirement account be the vault.

Self-Employed? SEP IRA and Solo 401(k)

If you work for yourself — a business owner, a freelancer, or a trader running a real business — nobody offers you a 401(k). Two accounts exist so you are not left out: the **SEP IRA** and the **Solo 401(k)**. Both let self-employed people save with similar tax treatment to the accounts above, with contribution amounts based on your self-employment income and limits set under IRS rules. Which one fits depends on your income shape and whether you have employees, so this is a genuine "talk to a tax professional" choice — the point here is simply to know they exist before you assume retirement accounts are only for employees.

Common Mistakes at This Level

- **Leaving the match on the table** — contributing 1% when the employer matches up to 4%. That is declining part of your pay, every single year, for your entire career.
- **Cashing out a 401(k) when changing jobs** — taking the check triggers taxes and usually the 10% early-withdrawal penalty, and kills decades of compounding. Moving the money directly into your new employer's plan or an IRA (a **rollover**) generally keeps the tax shelter intact — ask how before you touch anything.
- **Pulling money out early for non-emergencies** — a $10,000 early withdrawal can cost $2,200+ immediately and far more in lost future growth.
- **Opening the account and never investing** — leaving contributions sitting in cash for years. The tax shelter only helps if the money inside is actually invested and compounding.
- **Choosing Traditional vs Roth by habit or guesswork** — the decision is a simple rate comparison: your tax rate now versus your expected rate in retirement.
- **Day trading the retirement account** — no margin, restricted options, no tax benefit from losses, and the compounding vault gets treated like a casino chip. Wrong tool.

Chapter Summary

- Retirement accounts trade you tax advantages for rules: yearly contribution limits set by the IRS, and penalties for most early withdrawals.
- A 401(k) comes through an employer, with contributions straight from your paycheck. An IRA is an account you open yourself at a broker.
- Traditional means tax break now, taxed on the way out. Roth means taxed now, and qualified withdrawals — including all the growth — come out tax-free. Inside both, growth is not taxed year by year.
- The employer match is an instant 100% return: on a $50,000 salary with a 100% match on the first 4%, your $2,000 becomes $4,000 before the market moves. Always capture the full match.
- Traditional vs Roth is a rate comparison: pay tax whenever your rate is lower — now (Roth, if you are early-career) or later (Traditional, if you are in peak earning years).
- Early withdrawals from Traditional accounts generally cost income tax plus a 10% penalty before 59½. Roth contributions (not growth) can generally come back out without tax or penalty, but pulling them still destroys tax-free compounding.
- Brokers limit trading inside retirement accounts: no margin, and options restricted to covered and defined-risk strategies. Day trading there is usually the wrong tool.
- The self-employed are not left out: SEP IRAs and Solo 401(k)s offer similar shelter based on self-employment income.

Check Yourself

1. Which type of account takes after-tax money in and gives tax-free qualified withdrawals out?
2. Your employer matches 100% of the first 4% of pay you contribute to your 401(k), and you contribute nothing. What exactly are you giving up?
3. In most cases, what two charges hit a Traditional IRA withdrawal made at age 45?

4. Can you sell naked options on margin inside an IRA?
5. When does Traditional usually beat Roth?

Answers: 1) A Roth account (Roth IRA or Roth 401(k)) — contributions are taxed going in, and qualified withdrawals, including all growth, are tax-free. 2) Free money equal to 4% of your pay — an instant 100% return on that slice of contributions, gone forever each year you skip it. 3) Regular income tax on the amount, plus a 10% early-withdrawal penalty, in most cases. 4) No — IRAs have no margin, and brokers generally restrict IRA options to covered and defined-risk strategies only. 5) When your tax rate now is higher than the rate you expect to pay in retirement, so the upfront deduction is worth more than the later tax bill.

> **RULE**
> Get the full match first, choose Roth vs Traditional by comparing your tax rate now against later, and then let the account do its one job — compound untouched for decades.



AA2-18

TRADER TAXES
ADVANCED

Section 1256 and the 60/40 rule, the 475 election, and entities — education only.

Alpha Academy Level 2 · Team Alpha Trading

Trader Taxes Advanced: Section 1256, Elections & Entities

In AA-22 you learned the basics: short-term gains, long-term gains, and the wash sale rule. This module goes deeper, into the tax topics that matter once you trade actively and in size. Why do futures traders smile when they talk about taxes? What is this "60/40" rule? Do you need to form a company to trade? And is there really a form you file to become a "real trader"?

You will get straight answers here. But understand what this module is: a map, not a guide service. Tax law is full of details and deadlines, and your situation changes how the rules land. Use it to understand the landscape before you talk to a professional — not to replace one.

> **NOTE**
> This module is education only. It is NOT tax advice, and nothing in it tells you what to file, elect, or claim. Tax rules change, and what follows are general summaries, not the full law. Before you make any election, form any entity, or file any return based on ideas here, talk to a qualified tax professional — a CPA (certified public accountant) or tax attorney who works with traders. Getting this wrong is expensive.

A Quick Refresher: How Trading Gains Are Normally Taxed

When you sell a stock or an option for more than you paid, you have a **capital gain** — a profit on an investment asset. The tax system splits gains (and losses) into two flavors: **short-term** if you held the position one year or less, taxed like paycheck income, and **long-term** if you held it more than one year, taxed at lower rates. Almost everything a beginner trades — stocks, ETFs, options on single stocks — lives under these normal rules. What comes next is the big exception.

Section 1256: The Rule Futures Traders Love

Section 1256 is a section of the US tax code that gives certain contracts special tax treatment. A **Section 1256 contract** is a type of trading contract the law lists by name. The ones that matter to you:

- **Futures contracts** — ES, MES, NQ, GC, CL, the contracts you met in AA-15.
- **Index options on broad indexes** — SPX options are the big example. (SPX is the cash-settled, European-style index option from AA-11.)

And the ones that are **NOT** Section 1256 contracts: **single-stock options** (a call on Apple is not one), **equity options in general** (options on stocks and most ETFs follow the normal rules), and **stocks and ETFs themselves**.

Part 1: The 60/40 split. Every gain or loss on a 1256 contract is treated as **60% long-term and 40% short-term**, no matter how long you held it. Hold an ES futures trade for nine minutes? Still 60/40. This is called the **60/40 treatment**. Long-term rates are lower, so blending 60% of every gain into the long-term bucket usually means a smaller tax bill than the same profit in stocks, where a nine-minute hold is 100% short-term.

Here is the arithmetic — say you make a **$10,000** profit trading futures this year:

- 60% of $10,000 = **$6,000**, treated as a long-term gain
- 40% of $10,000 = **$4,000**, treated as a short-term gain

Same $10,000, two flavors, and the bigger flavor gets the lower rate. That is the whole trick — and it works the same way on losses.

Part 2: Mark-to-market at year end. Mark-to-market means pretending, for tax purposes, that you sold everything at its current price on a set date. For 1256 contracts, that date is the last day of the tax year. Holding an open futures position on December 31 that is up $3,000? You report that gain this year even though you never closed the trade. Down $3,000, you report the loss. There is no deferring the tax by holding on.

Part 3: No wash sales. The **wash sale rule** (next section) does **not** apply to Section 1256 contracts. A futures or SPX trader can close a losing trade and reopen the same position the same day, and the loss still counts. For very active traders, this alone removes a huge headache.

> **TIP**
> This lower tax toll, plus simpler reporting, is one reason traders gravitate to futures and SPX options. It is not magic, and it does not make a losing strategy win.

The Wash Sale Rule: Where It Still Bites

You first met the **wash sale rule** in AA-22. Quick refresher: if you sell a security at a loss and buy a **substantially identical** security (roughly, the same stock) within 30 days before or after the sale, the tax loss is disallowed for now — a 61-day window in total. The loss is not destroyed; it is added to the cost of the new position, so you may recover it later — just not when you wanted to. The key point at this level: **the wash sale rule still fully applies to stocks and equity options.** Trade the same stock options in and out all year, harvesting losses on paper, and many of those losses can be quietly deferred until tax time. Your broker tracks wash sales on your statement, but only within the same account at that broker. Trades at a second broker, or in your retirement account, are yours to track — and buying the same stock in an IRA after a taxable-account loss can permanently kill the loss. Futures and SPX traders skip this worry entirely.

Trader Tax Status: There Is No Magic Form

Sooner or later someone will tell you to "get Trader Tax Status," as if it were a license you apply for. It is not. **Trader Tax Status** (often shortened to TTS) is not a form, a certificate, or an application. Nobody approves you. The tax law treats most people who buy and sell securities as **investors**. A smaller group qualifies as **traders**, meaning the IRS views their trading as an actual business. Which one you are is decided by **facts and circumstances** — the IRS weighs the pattern of your activity, usually only if your return is questioned. There is no published checklist with a magic number of trades.

Courts have tended to weigh:

- **How often you trade** — trading most days the market is open points toward a business. A few trades a month looks like investing.
- **How long you hold** — short holding periods look like trading. Holding for months or years looks like investing.
- **How much time and effort you spend** — substantial, regular hours researching and managing trades support trader status.
- **How continuous it is** — a real business runs steadily. Long gaps weaken the claim.

- **Whether you depend on it** — trading as a serious attempt at your livelihood counts for more than a hobby.

Why would anyone care? Two main reasons. First, a trader in business can generally deduct business expenses (platforms, data, education, home office costs where the rules allow) like other businesses do, while investors lost most of those deductions years ago. Second, and bigger: **only a trader can make the Section 475 election** in the next section. But read this carefully: if your facts look like an investor's, calling yourself a trader on the return does not make it so. The facts come first, the label follows. A wrong classification can mean deductions and losses reversed later, with interest.

> **RISK**
> Be deeply suspicious of anyone selling a course or kit that promises to "get you approved" for Trader Tax Status. There is nothing to approve. They are selling paper over a facts question, and your facts are what the IRS will judge.

The Section 475 Mark-to-Market Election

Section 475 is another part of the tax code. It lets a trader who qualifies for Trader Tax Status make an **election** — a formal choice you notify the IRS about — to use mark-to-market accounting on their securities trading. (Scope note: Section 475 concerns securities like stocks and equity options. Futures and SPX options already have mark-to-market under Section 1256.)

What changes if you elect it?

- **Everything is ordinary.** Gains and losses in the elected activity become **ordinary gains and losses**, the same character as business income, instead of capital gains and losses. The one-year holding question disappears.
- **The $3,000 wall disappears.** Under the normal rules, a trader whose capital losses beat his capital gains for the year can only use **$3,000** of that loss against his other income; the rest carries forward, sometimes for years. With a 475 election, a loss in the elected activity is an ordinary business loss, usable against other income in the year it happens (within the normal business-loss rules). For an active trader with a bad year, this is often the single biggest benefit in this module.
- **Year-end mark-to-market.** Like 1256, open positions are treated as sold at year-end prices. No parking a loser unsold to dodge the loss, and no parking a winner either.
- **No wash sales in the elected activity.** Because everything is marked to market and ordinary, the wash sale rule does not apply to trades the election covers.

Who is it for? A genuinely active trader whose facts support Trader Tax Status, trading stocks or equity options frequently, who wants business treatment. Who is it **not** for? Long-term investors (the election is unavailable to you, and would hurt anyway, since it gives up low long-term rates on your winners) and anyone whose trading is light or occasional.

Now the deadline, and take this seriously. Elections like this one generally must be made **early in the tax year they apply to** — near the start of the year, around when the prior year's return is due — not in December after you know whether you won or lost. You cannot see a big loss in November and elect with hindsight. Miss the window and the election is not available for that year. This module deliberately gives no filing instructions. If this election might ever matter to you, ask a tax professional at the beginning of the year, not the following spring.

> **NOTE**
> An election is a serious, sometimes hard-to-undo choice with its own formal steps. Never make one because a video, a forum post, or this module made it sound good. Have a qualified tax professional who works with active traders review your facts first.

Trading Through an Entity: Honest Talk About LLCs and S-Corps

At some point every active trader asks: "Should I form an LLC?" An **LLC** (limited liability company) is a business entity you create with your state. An **S-corporation** (S-corp) is a different entity type, taxed under special rules. Here is the honest version. **What an entity does not do:**

- It does **not** change how your trading gains are taxed. Run ES futures through an LLC and they are still Section 1256, still 60/40. Run stocks through one and they are still capital gains. Entities do not improve the 60/40 rule, do not create Trader Tax Status, and do not turn an investor into a trader. Your activity's facts decide that.
- It does **not** make taxes disappear, and it is **not a loophole**. Anyone pitching a company structure as a secret way to pay nothing is selling you a problem.

What an entity sometimes legitimately does: It can clean up the business side of serious trading — separating expenses, and in some structures helping a trader create the kind of income that lets them fund a retirement plan or handle health insurance like other business owners. Those benefits are real for some full-time traders. They are also specific, fact-dependent, and easy to get wrong.

What an entity always does: It costs money and time. Filing fees to form it, annual state fees to keep it, a separate tax return every year (usually prepared by a paid professional), extra bookkeeping, and for an S-corp, payroll to run if you pay yourself a salary. For a part-time or small-account trader, the yearly cost and hassle can exceed any benefit. Plenty of successful traders trade in their own name for years.

Bottom line: an entity is a tool for a trader who already has a real, substantial trading business and a professional's advice. It is not step one, and it is not a tax trick.

Record-Keeping: The Boring Habit That Saves You

Every topic in this module depends on one thing: **records**. Two habits will save you more pain than any election. **Respect the broker statement.** After each year, your broker sends you a **Form 1099-B**, the official report of your sales, gains, and losses. The IRS gets a copy too, and your return must roughly match it — never ignore it or "estimate" your own numbers over it without understanding the difference. For Section 1256 contracts, brokers report the year's net result as a single figure — one more way futures reporting is simpler than a thousand stock trades with wash sale adjustments.

Treat your journal as a tax document. In AA-21 you built a trading journal to grade your decisions. That same journal — dates, tickers, sizes, prices, and your reason for each trade — is also evidence. It supports your activity pattern if Trader Tax Status is ever questioned, helps you (or your accountant) reconcile the broker's statement, and catches errors, which do happen on broker statements. Keep your journal, monthly statements, and 1099 forms together, for years. Five minutes of organization in January beats a panicked shoebox in April.

And One More Line: State Taxes

Everything above is federal. **Your state has its own income tax rules, and they do not always follow the federal treatment** — so expect a state layer on top of everything discussed here.

Common Mistakes at This Level

- **Assuming all options get 60/40 treatment.** Only Section 1256 contracts do. Single-stock options follow the normal capital gain rules.
- **Forgetting the December 31 mark.** An open futures position at year end still creates a taxable gain or loss.
- **Thinking the wash sale rule was repealed.** It was not. It still applies to stocks, ETFs, and equity options — just not to 1256 contracts.
- **Believing Trader Tax Status is a form you file.** There is no form and no approval. It is a facts-and-circumstances judgment.
- **Waiting until December to think about the Section 475 election.** Elections like this generally must be made early in the year. Hindsight elections do not exist.
- **Forming an LLC expecting your taxes to change.** An entity changes your paperwork and your costs, not the character of your gains.
- **Throwing away records.** Broker statements and your journal are your proof. Keep them for years.

Chapter Summary

- Most trading (stocks, ETFs, equity options) is taxed under the normal capital gain rules, with net capital losses limited to $3,000 of use per year against other income.
- Section 1256 contracts — futures and broad index options like SPX — get 60/40 treatment: 60% long-term, 40% short-term, regardless of holding period. A $10,000 futures gain is $6,000 long-term plus $4,000 short-term.
- Section 1256 positions are marked to market on December 31, and the wash sale rule does not apply to them.
- The wash sale rule still applies to stocks and equity options, across a 61-day window, and across your accounts.
- Trader Tax Status is a facts-and-circumstances judgment about whether your trading is a business. There is no form and no approval process.
- The Section 475 election gives a qualifying trader ordinary treatment, removes the $3,000 limit and wash sales for the elected activity, and generally must be made early in the tax year.
- An LLC or S-corp does not change the character of trading gains and is not a loophole. It adds real cost and complexity, and fits only some serious traders.
- Good records — broker 1099-B forms, statements, and your journal — are the foundation under every topic here. State taxes sit on top of all of it.

Check Yourself

1. You made a $20,000 profit trading ES futures this year, in trades held for minutes at a time. How is that gain split for tax character, and why does the short holding time not matter?2. Does the wash sale rule apply to a trader buying and selling SPX index options? What about options on a single stock?
3. A friend says, "I filed the form, so now I officially have Trader Tax Status." What is wrong with that statement?
4. A trader who qualifies for Trader Tax Status elects Section 475 and then has a $30,000 losing year in stocks. Why is the election valuable that year?
5. Name two things forming an LLC does NOT do for a trader.

Answers: 1) $12,000 long-term (60%) and $8,000 short-term (40%). Section 1256 uses the 60/40 blend regardless of holding period, so minutes or months makes no difference. 2) No — SPX index options are Section 1256 contracts, and the wash sale rule does not apply to them. Single-stock options are equity options, not 1256 contracts, so the wash sale rule still applies. 3) There is no form and no approval. Trader Tax Status is determined by the facts and circumstances of the person's trading. 4) His losses are ordinary business losses instead of capital losses, so he is not stuck behind the $3,000-per-year limit on using capital losses against other income. 5) Any two of: it does not change how gains are taxed (futures stay 60/40, stocks stay capital gains), it does not create Trader Tax Status, it does not make taxes disappear, and it adds cost and complexity rather than removing them.

NOTE
One last reminder: this is education only, not tax advice. Tax rules change, deadlines are unforgiving, and your facts decide your outcome. A qualified tax professional who works with traders is not an optional extra at this level — they are part of the cost of trading seriously.

RULE
Learn the tax map early, keep records all year, and never let a tax idea — not 60/40, not an election, not an entity — be the reason you take a trade.



AA2-19

CASE STUDIES
CRASHES & MANIAS

2008, 2020, and GameStop — what three historic storms teach every trader.

Alpha Academy Level 2 reference series · Team Alpha Trading

Case Studies: Three Crashes & Manias That Taught the Market

Prices do not repeat. People do. The tickers change, the dates change, the reason in the headlines changes — but underneath, the same two emotions drive every crash and every mania in market history: fear and greed, arriving in the same order, wearing different clothes.

That is why traders study history. Not to predict the next crash — nobody can — but to recognize the *shape* of one while it is happening, and to know in advance how you will behave. In this volume you will walk through three events that taught the market its hardest lessons: the 2008 financial crisis, the 2020 COVID crash, and the 2021 GameStop mania. For each one you will see what happened in plain words, the real numbers, what the charts were saying, and the lessons that still protect traders today.

> **NOTE**
> This volume is education, not financial advice. These stories teach patterns of behavior, not predictions. Every crash feels different while you are inside it — that is exactly why you study them now, while you are calm.

Case Study 1 — 2008: The Financial Crisis

What Happened

In the early 2000s, houses in America kept going up in price, and almost everyone believed they always would. Banks handed out home loans — called **subprime loans** when they went to borrowers with weak credit and shaky incomes — to people who could not truly afford them. It did not seem to matter: if the borrower stopped paying, the bank could take the house and sell it for more than the loan.

Then banks bundled thousands of these loans together into packages and sold pieces of the packages to investors all over the world. A package of home loans sold as an investment like this is a **mortgage-backed security**. Pension funds, foreign banks, and giant firms bought them eagerly, because they paid good interest and were stamped "safe."

The machine ran on one belief: house prices only go up. Around 2006–2007, they stopped going up. Borrowers began to **default** — to stop paying their loans. Suddenly nobody knew what the packages were worth, because nobody knew how many loans inside them were bad.

Now add the ingredient that turned a housing problem into a global crisis: **leverage**. Leverage means using borrowed money to control a much bigger position than your own cash could buy. It magnifies everything — gains on the way up, losses on the way down. The big banks had borrowed enormously against a thin cushion of their own money. When the loan packages fell in value, the losses did not just hurt — they ate straight through the cushion, and the banks themselves were suddenly at risk of failing.

On September 15, 2008, one of them did. **Lehman Brothers**, a huge Wall Street investment bank, failed — the largest bankruptcy in American history. Panic followed. Banks became afraid to lend to *each other*, because nobody knew who was secretly broke. Everyday lending seized up in what is called a **credit freeze**: businesses that needed routine loans to operate could not get them. Governments and central banks stepped in with emergency rescues and lending programs to keep the system alive. It worked — barely — but the stock market kept falling for almost six more months.

The Numbers

The **S&P 500** — the index of 500 large US companies from Level 1 — made its closing peak on October 9, 2007, at 1,565. It did not bottom until March 2009: an intraday low of 667 on March 6, 2009, and a closing low of 677 on March 9, 2009. Peak to trough, that is a fall of roughly 57%.

Feel what that means in dollars. If you had $10,000 in an S&P 500 index fund at the peak and held on, at the closing low you had about $4,300 left. And look at your loss-recovery table from Level 1: after a 57% loss, getting back to even requires a gain of about 131% — not 57%. Losses dig a hole that is always deeper than it looks.

What the Chart Was Saying, Month by Month

No single day in this crash should have surprised a chart reader. The market announced itself for over a year:

- **October 2007:** The index peaks at 1,565 and starts sliding. Nothing looks broken yet — every bull market has dips.
- **Late 2007 into early 2008:** The staircase turns down. Each rally tops out *lower* than the one before — the pattern of lower highs you learned in AA-08. The trend is quietly rolling over while the news still sounds fine.
- **Spring and summer 2008:** A strong rally convinces many people the worst is over. This is a **bear market rally** — a hopeful climb inside a bigger downtrend. It fails, and the downtrend resumes. Rallies inside downtrends exist to trap optimists.
- **September 2008:** Lehman fails on the 15th. The selling turns into a waterfall: enormous down days, prices opening far below where they closed the night before, brief violent bounces that collapse within days.
- **October–November 2008:** The worst of the panic. Swings are wild in both directions — huge up days inside a collapsing market, which is a sign of chaos, not health.
- **December 2008 to February 2009:** The headlines improve. The rescue plans are in place. And the market *still* grinds lower. This is the cruelest part of a crash: it does not end when the news gets better.
- **March 2009:** The final low — 667 intraday on March 6, a 677 close on March 9. Seventeen months after the peak, the climb back finally begins.

The chart reader's lesson is not "sell everything in October 2007" — nobody rings a bell at the top. It is that for seventeen straight months, the trend said *down*, every rally said *lower high*, and anyone who kept buying "because it is cheap now" discovered that cheap can always get cheaper.

What the VIX Did

You met the **VIX** in AA-10: the market's fear gauge, calculated from SPX option prices, expressing the move the market expects over the next 30 days. In calm times it sits at low, sleepy levels. In 2008 it climbed as fear built through the autumn — and its closing peak, about **80.86**, did not arrive until November 20, 2008, deep into the crash.

Notice two things. First, a reading near 81 is roughly four times the "20" example from Level 1 — option buyers were paying panic prices for protection. Second, and more important: the VIX peaked in November, but the *market* did not bottom until the following March. Extreme fear told you the panic was historic. It did not tell you the bottom was in. The VIX is a thermometer, not a clock.

Three Lessons From 2008

- **Leverage turns a fall into a wipeout.** The banks did not fail because houses dipped; they failed because borrowed money multiplied the dip into death. Your personal version: position sizes and borrowed money that feel fine in calm markets are what end traders in storms.
- **The trend outlasts your opinion.** For seventeen months, "it has to bounce, it is down too much" was wrong. Trade what the chart is doing, not what you feel it owes you.
- **Survival is a position.** Anyone who still had cash and a functioning account in March 2009 got to buy the recovery. Anyone who was wiped out in October 2008 just got to watch it.

Case Study 2 — 2020: The Fastest Crash in History

What Happened

In early 2020, a new virus — COVID-19 — spread around the world. Governments responded by closing businesses, canceling travel, and ordering people to stay home. In a matter of weeks, enormous parts of the economy simply stopped: empty airplanes, empty restaurants, empty offices. Nobody could say how long it would last or how deep the damage would go, and markets hate one thing above all: not knowing.

The S&P 500 made its closing peak on February 19, 2020, at 3,386. By March 23, 2020, it closed at 2,237 — a fall of about 34% in just over a month. A fall of 20% or more from a peak is called a **bear market**, and this was the fastest bear market in history. Crashes in the past had taken months or years to unfold. This one took weeks. Investors who checked their accounts monthly missed the entire thing on the way down.

The Four Days the Market Had to Be Paused

US stock markets have automatic brakes called **circuit breakers**: when the market falls extremely fast in a single session, trading is halted for a short pause so panic can cool and information can catch up with prices. Before 2020, a market-wide halt like this was a rare, once-in-a-generation event.

In March 2020, trading was halted by circuit breakers **four times**: March 9, March 12, March 16, and March 18. Four emergency pauses in ten days. Sit with what that means for you as a trader: during the fastest falls, the exit door itself closed, again and again. There were moments when you could not sell at any price, because there was no trading at all — and when trading reopened, prices often opened lower still. The VIX, the same fear gauge from 2008, closed at **82.69 on March 16, 2020** — even higher than its 2008 closing peak.

In dollars: $10,000 in an index fund on February 19 was about $6,600 on March 23. Not over seventeen months. Over about five weeks.

The V-Shaped Recovery — and Why It Happened

Then came the part nobody predicted: the market turned around and climbed back with almost the same speed it had fallen — down like a cliff, up like a ramp, the letter **V** drawn on the chart. Stock prices recovered while the real economy was still in deep trouble. Why?

Two rescuers arrived fast, and they arrived huge:

- **The Federal Reserve** — the **Fed**, the central bank of the United States — cut interest rates and pumped money into the financial system, making borrowing cheap and making sure the credit freeze of 2008 did not repeat.
- **The government** sent **stimulus**: direct support payments and emergency programs that put cash into the hands of households and businesses, replacing income the shutdown had erased.

In plain words: in 2008 the rescue was slow and fought over; in 2020 it was immediate and massive. The market stopped pricing "how bad is the economy" and started pricing "money is flooding in and the system will be held up." Both crashes were real. The difference in how they *ended* was mostly the speed and size of the response.

Three Lessons From 2020

- **Crashes can be far faster than your plan assumes.** Seventeen months of pain in 2008; about five weeks in 2020. Your risk rules — position size, your daily loss limit from AA-19 — must be set *before* the crash, because during it there may be no time, and briefly no market, in which to fix them.

- **A halt is not a floor.** Circuit breakers pause a fall; they do not end it. Never build a plan that depends on being able to exit at a specific price in a panic. Gaps and halts do not care about your stop.
- **Panic selling locks in the bottom.** The investor who sold on March 23 turned a terrifying month into a permanent 34% loss and then had to watch the V climb without them. The one who survived was not the smartest — it was the one whose position size let them sit still.

Case Study 3 — 2021: GameStop & the Short Squeeze

The Setup: A Bet Against a Dying Store

GameStop — ticker **GME** — is a chain of shops selling video games, a business most of Wall Street considered a relic in the age of downloads. Many large funds agreed, and they bet against it using **short selling**, which you learned in Level 1: borrow shares, sell them now, and hope to buy them back cheaper later, pocketing the difference. Remember the catch: a short seller's loss is *unlimited*, because there is no ceiling on how high a price can rise — and to exit, the short seller **must buy the shares back**.

Here is the measurement that loaded the spring. **Short interest** is the total number of shares that have been sold short and not yet bought back, usually expressed as a percentage of the **float** — the shares actually available to the public for trading. In January 2021, GameStop's short interest had passed **100% of the float**. Read that again: the shares sold short — shares that all had to be bought back someday — added up to *more* than the shares that existed to trade. That is possible because of a chain effect: shares that were borrowed and sold land in a new owner's account, and that new owner's broker can lend those same shares out *again* to another short seller. The same shares had effectively been promised out twice.

Every one of those short positions was a future *buyer*, whether they liked it or not. All the squeeze needed was a reason for the price to rise and refuse to come back down.

The Squeeze, Step by Step

At the start of January 2021, GME traded around $20 a share. Then an enormous online community of everyday traders decided to buy — partly to make money, partly to hurt the big funds they saw as villains. Here is how their buying became an explosion:

- **Step 1 — Retail buying lifts the price.** Thousands of small buyers push a cheap, heavily shorted stock upward. $20 becomes $30, then $40.
- **Step 2 — Shorts feel pain and start covering.** Every dollar up is a dollar lost for a short seller, with no limit. Some decide to exit: they buy shares back. But buying back is *buying* — their exit pushes the price higher.
- **Step 3 — The loop feeds itself.** Higher prices force more shorts to cover, whose buying forces prices higher still, which forces more covering. This chain reaction is a **short squeeze**: the people who bet on a fall become the fuel for the rise.
- **Step 4 — Options pour fuel on it.** Crowds also bought **call options** (Level 1: contracts that profit when price rises). The firms that sold those calls protect themselves by buying the stock itself as it climbs — even more forced buying, added automatically.
- **Step 5 — The blow-off.** On January 28, 2021, GME reached an intraday high of **$483** — roughly 25 times its price from the start of the month. A $1,000 position bought at $20 (50 shares) was worth about $24,150 at that print.

That same day, the story broke its own machinery: several brokers **restricted buying** in GME — customers could sell, but not buy more. The firms that process and settle trades were demanding far more cash from brokers because of the wild swings, and restricting purchases was how some brokers responded. Millions of traders were furious. Whatever you think of the decision, memorize the mechanics: it actually happened, in the middle of the biggest trade of the year.

What Happened After

Mania prices need new buyers arriving forever, and forever never comes. Within days and weeks the price fell back hard, far below the $483 peak, as the covering finished, the crowd thinned, and the restrictions broke the momentum. The stock later split 4-for-1 in 2022, but that does not change the lesson of January: the people who bought near the top were not investing in a video-game store — they were paying for the squeeze itself, and when the squeeze ended, so did the price. The last buyers funded everyone else's exit.

Three Lessons From GameStop

- **Never short a crowded trade.** When short interest passes 100% of the float, you are no longer betting against a company — you are standing in a room where everyone must exit through one small door, and your loss has no ceiling. Crowded trades kill on the exit, not the entry.
- **A mania is a transfer, not a creation.** The $483 print did not come from GameStop's business improving 25 times in a month. Every dollar won at the top was paid by someone who bought later and higher. If you cannot explain what a thing is worth in plain words, you are not investing — you are hoping to find a later buyer.
- **Your access is not guaranteed.** Brokers restricted buying mid-mania. Platforms can halt, restrict, or liquidate (AA-14). This is why defined-risk structures exist: a bought option or a spread has a maximum loss you choose in advance, and no broker's emergency decision can make it worse.

What All Three Teach

- **The emotions never change.** 2008 was fear of a broken system. 2020 was fear of an unknown disease. 2021 was greed and revenge dressed as a movement. Different stories — the same fear and greed you will feel in your own account, in miniature, on ordinary Tuesdays.
- **Leverage and crowded exits are the accelerant in every fire.** Banks borrowing against thin cushions, shorts who all must buy back at once — disaster is rarely about being wrong. It is about being wrong *in a position you cannot get out of*.
- **Liquidity vanishes exactly when you want it most.** Frozen credit in 2008, circuit-breaker halts in 2020, buy restrictions in 2021. In every story, the exit failed somebody. Position size is the only protection that works before, during, and after.
- **The recovery always came — for the survivors.** The market climbed back from 677, and back from 2,237. But "eventually" meant seventeen months in one case, and it paid only the people who were still solvent, still calm, and still in the game.
- **Calm is a skill you build in advance.** Nobody in these stories rose to the occasion. They fell to the level of the plan they had written before the panic. That is the entire point of AA-19, AA-20, and AA-21 — and of this volume.

Check Yourself

1. How far did the S&P 500 fall, peak to trough, in the 2008 crisis — and over roughly how long a period?
2. What is leverage, and why did it turn a housing downturn into a global financial crisis?
3. What happened four times in March 2020, and what does it teach you about planning to "just sell" during a panic?
4. GameStop's short interest passed 100% of the float. What does that mean, and why did it make a squeeze possible?
5. In one sentence, what is a short squeeze?

Answers: 1) Roughly 57% — from the closing peak of 1,565 on October 9, 2007, to the closing low of 677 on March 9, 2009, about seventeen months. 2) Leverage is using borrowed money to control a much bigger position than your own cash allows; it magnifies losses as well as gains, so when loan packages fell in value, banks that had borrowed against thin cushions faced failure, froze lending to each other, and spread the damage worldwide. 3) Trading was halted by market-wide circuit breakers (March 9, 12, 16, 18); during the fastest falls the exit itself closes, so your protection must be position size set in advance — not a plan to sell at a specific price mid-panic. 4) It means the total shares sold short and not yet bought back exceeded the shares available to trade (possible because sold shares can be lent out again); every one of those shorts was a forced future buyer, so rising prices triggered buying that pushed prices higher still. 5) A short squeeze is a chain reaction where short sellers rushing to buy back their positions push the price up, forcing more short sellers to buy back at even higher prices.

> **RULE**
> Study history before you risk money. The next crash will have a different name, a different cause, and different tickers — but the fear, the greed, the leverage, and the crowded exits will be exactly the same, and the traders who recognized the shape of it will be the ones still standing.



CU-03

LEVEL 2
FINAL EXAM

50 questions over all of Level 2. Pass mark: 80%.

Curriculum & Assessment · Team Alpha Trading

Level 2 Final Exam

This is the final exam for **Alpha Academy Level 2** — the advanced course covering AA2-01 through AA2-19. It tests whether the Level 2 ideas actually stuck: reading the tape and order flow, market internals, volatility and the VIX, earnings and IV crush, calendar, diagonal, and butterfly structures, portfolio Greeks and hedging, the DOM and footprint charts, trading the open, swing trading, backtesting, gamma and dealer positioning, long-term investing, retirement accounts, trader taxes, and the great case studies of 2008, 2020, and GameStop.

There are **50 multiple-choice questions**. Each has four answers, A through D, and exactly one best answer. The **pass mark is 80% — you need at least 40 of 50 correct** to pass Level 2. Take it closed book, in one sitting, and answer every question — a blank counts the same as a wrong answer, so always make your best choice.

Some questions ask for a fact. Some give you numbers and ask you to compute. Some describe a trading situation and ask for the best judgment. Work the math questions out on paper — every number you need is inside the question.

> **NOTE**
> This exam is an educational self-check for Alpha Academy students. It is not a license, a certification, or financial advice. When you finish, grade yourself with the **Level 2 Final Exam — Answer Key**, which explains every answer and tells you exactly which module to re-study for each question you missed.

The Questions

1. What is the single biggest change Level 2 asks of a trader compared with Level 1?

- A) Memorizing more chart patterns
- B) Moving from "what things are" to how the market actually works underneath — flow, volatility, and positioning
- C) Trading larger position sizes
- D) Switching from stocks to futures only

2. On a Level 2 quote screen, the **bid size** at a price shows:

- A) How many shares traders want to buy at that price, as resting orders
- B) How many shares were sold yesterday at that price
- C) The total number of shares the company has issued
- D) The number of market makers quoting the stock

3. The **tape** (time and sales) shows:

- A) Orders that traders are thinking about placing
- B) Analyst price targets for the day
- C) Trades that have actually executed — price, size, and time, one after another
- D) The opening price of every stock on the exchange

4. In order flow, an **aggressive buyer** is a trader who:

- A) Buys the largest number of shares
- B) Places a limit order below the bid and waits
- C) Crosses the spread and takes the ask price to get filled right now
- D) Buys only on red days

5. **Absorption** is happening when:

- A) A stock gaps up on earnings and never looks back
- B) A market maker widens the spread
- C) Volume dries up completely at lunchtime
- D) The bid keeps getting hit with heavy selling, yet price refuses to fall — a large buyer is soaking it up

6. The NYSE **TICK** reading at any moment is:

- A) The number of stocks trading above their opening price
- B) The day's total share volume in billions
- C) The average size of the last 100 trades
- D) The number of stocks ticking up minus the number ticking down

7. The index is up 0.8% on the day, but market breadth is negative — more stocks are falling than rising. The best reading is:

- A) The rally is broad and healthy
- B) A few big stocks are carrying the index while most stocks weaken — treat the rally with suspicion
- C) Breadth must be wrong; the index is all that matters
- D) It is a guaranteed signal to short the index

8. The put/call ratio prints an extreme high reading. Level 2 teaches that this most often means:

- A) Fear is extreme — historically a warning that a bounce becomes more likely, not a reason to pile into puts
- B) Everyone is bullish and the top is in
- C) Options have stopped trading
- D) The ratio is broken and should be ignored forever

9. The **VIX** measures:

- A) The S&P 500's price change over the last 30 days
- B) The total volume of options traded yesterday
- C) The implied volatility of S&P 500 index options over the next 30 days
- D) The interest rate the Federal Reserve will set next

10. The VIX is at 20. Using the Level 2 rule (divide by $\sqrt{12} \approx 3.46$), the market is pricing roughly how much S&P 500 movement over the next 30 days?

- A) About ±20%
- B) About ±5.8%
- C) About ±1.7%
- D) About ±0.6%

11. Which statement about trading the VIX itself is correct?

- A) The VIX is an index you cannot buy directly — products that track it use VIX futures, which behave differently
- B) You can buy shares of the VIX like a stock
- C) VIX futures always equal the VIX number exactly
- D) The VIX pays a dividend

12. Long-volatility ETPs (funds that hold VIX futures) tend to lose value over time mainly because:

- A) Their managers charge hidden fees of 5% a month
- B) VIX futures are usually in contango, so the fund repeatedly sells the cheaper near contract and buys the more expensive next one — a steady roll cost
- C) The VIX only goes down
- D) They are only traded one day per month

13. A stock trades at $100 with implied volatility of 36%. Using expected move ≈ price × IV × √(days ÷ 365), the expected move over the next 7 days is about:

- A) $36.00
- B) $13.85
- C) $3.60
- D) $5.00

14. A trader buys calls the day before earnings. The stock rises 3% after the report — in the direction the trader wanted — yet the calls lose money. The main reason is:

- A) The broker charged too much commission
- B) Calls cannot profit when a stock rises
- C) IV crush: implied volatility collapsed after the announcement, and the premium deflated faster than the price move could pay
- D) Earnings reports are always bad for options

15. Before earnings, the options market is pricing a ±8% move. The stock actually moves 3%. Who does that outcome generally favor?

- A) Buyers of straddles, who needed a huge move
- B) Nobody — both sides always break even
- C) Sellers of premium, because the move came in smaller than what was priced in
- D) Only the market maker

16. A **calendar spread** is built with options that have:

- A) The same strike and the same expiration
- B) Different strikes and the same expiration
- C) The same strike and different expirations
- D) Different underlyings entirely

17. You buy a calendar spread for a net debit of $2.30 per share ($230 per spread). Your maximum loss is:

- A) Unlimited
- B) $230 — the debit you paid
- C) $2,300
- D) Whatever the stock does below the strike

18. A **diagonal spread** differs from a calendar spread because a diagonal uses:

- A) Futures instead of options
- B) Different expiration dates only
- C) No options at all
- D) Different strikes AND different expirations

19. In a standard long call **butterfly** (buy 1 lower strike, sell 2 middle, buy 1 higher, evenly spaced), maximum profit occurs when the stock at expiration is:

- A) Exactly at the middle (center) strike
- B) Far above the highest strike
- C) Far below the lowest strike
- D) Anywhere outside the wings

20. A call butterfly with strikes 95 / 100 / 105 costs a net debit of $1.20 per share. Its maximum profit per butterfly is:

- A) $120
- B) $500
- C) $380 — the $5 wing width minus the $1.20 debit, times 100
- D) Unlimited

21. What makes a butterfly safer than a ratio spread (for example, selling two options for every one bought)?

- A) The butterfly's wings cap the loss at the debit paid, while the extra sold option in a ratio spread leaves open-ended risk
- B) Butterflies use more contracts
- C) Ratio spreads are illegal for beginners
- D) Butterflies never lose money

22. Your three stock positions have deltas of +120, −40, and +75. Your portfolio's net delta is:

- A) +235
- B) +155
- C) +85
- D) −5

23. You hold 200 shares of a stock and sell 2 call contracts against them (each contract covers 100 shares) with a delta of 0.50 per share. Your net delta is:

- A) +200
- B) +100

- C) −100
- D) −200

24. A portfolio that is **long vega** heading into a week of major earnings reports will generally:

- A) Gain if implied volatility rises and lose if implied volatility falls, regardless of direction
- B) Only ever gain
- C) Be completely unaffected by volatility
- D) Lose money every single day from theta only

25. The **DOM** (depth of market) ladder shows:

- A) Trades that already happened, arranged by price
- B) Resting buy and sell orders stacked at each price level — orders waiting, not trades done
- C) The opinions of analysts covering the stock
- D) Next week's economic calendar

26. A **footprint chart** adds information a plain candlestick does not, because it shows:

- A) The weather at the exchange
- B) The company's earnings history
- C) News headlines inside each candle
- D) How much volume actually traded at each price inside the candle, split between aggressive buyers and sellers

27. Why do many Level 2 traders treat the first minutes after the 9:30 AM open with extra caution?

- A) Overnight news, earnings, and queued orders all hit at once — spreads are widest and price discovery is at its most violent
- B) The market is closed to retail traders until 10 AM
- C) Options cannot trade in the first 30 minutes
- D) The opening price is set randomly

28. A stock opens, drives straight up for 20 minutes on huge volume, then stalls at the same high three times. The Level 2 judgment is:

- A) Keep buying every dip no matter what — the open drive can never fail
- B) The drive was real but is now meeting sellers; a plan would tighten up, take profit, or stand aside rather than chase
- C) The stock must be halted
- D) Volume does not matter at the open

29. The defining risk of **swing trading** (holding for days) that day trading avoids is:

- A) Commissions
- B) Overnight and weekend gaps — price can open far beyond your stop, and a stop order cannot protect you from a gap
- C) Having to watch the screen all day
- D) Pattern day trader rules

30. A swing trader plans to hold through a company's earnings report. Level 2's teaching is:

- A) Earnings do not affect stocks held more than one day
- B) Always double the position before earnings
- C) Stops always fill at the stop price, even on gaps
- D) That is a decision, not an accident — the position must be sized for a gap through the stop, or closed/reduced before the print

31. A system wins 40% of the time, with an average win of +$300 and an average loss of −$150. Its expectancy per trade is:

- A) +$150
- B) −$30
- C) +$30 — (0.40 × $300) − (0.60 × $150) = $120 − $90
- D) +$60

32. Overfitting in backtesting means:

- A) Testing on too little data
- B) Using a computer instead of paper
- C) Tuning the rules until they fit the past so precisely that they describe history instead of an edge — and fail live
- D) Backtesting more than one market

33. A backtest shows a 95% win rate using the closing price of a candle to decide a trade that supposedly entered at that same candle's open. The flaw is:

- A) The win rate is too low
- B) Look-ahead bias — the test used information that was not available when the trade had to be placed
- C) The test used too many trades
- D) Candles cannot be used in backtests

34. In a **positive gamma** environment, dealers hedging their books tend to:

- A) Buy rallies and sell dips, amplifying moves
- B) Stop hedging entirely
- C) Trade only after the close
- D) Sell rallies and buy dips, which dampens moves and pins price

35. In a **negative gamma** environment, dealer hedging tends to:

- A) Amplify moves — hedging chases price, so rallies and selloffs run further and faster
- B) Freeze price in place all day
- C) Make options free
- D) Eliminate volatility

36. The **gamma flip** level is best described as:

- A) The strike with the most open interest
- B) The closing price of the previous day

- C) The price level where dealer positioning flips between positive and negative gamma — above it markets tend calmer, below it wilder
- D) A level that guarantees a reversal

37. A large **call wall** (a strike with very large call open interest) most often acts as:

- A) A magnet and resistance zone — rallies tend to stall or slow into it as hedging flows lean against the move
- B) A guarantee the stock must rise through it
- C) A signal the stock will gap down
- D) Nothing at all — open interest never matters

38. Price is below the gamma flip and implied volatility is rising. The Level 2 read is:

- A) A quiet, range-bound day is most likely — size up
- B) Nobody knows anything; flip a coin
- C) The stock market always falls in this setup
- D) A negative-gamma environment: expect wider ranges and faster moves, reduce size, and demand defined risk

39. The Level 2 investing chapters teach that a long-term investor's most reliable advantage is:

- A) Predicting next week's headlines
- B) Checking prices every hour
- C) Concentrating everything in one hot stock
- D) Time and compounding — staying invested through cycles instead of trying to jump in and out

40. Dollar-cost averaging means:

- A) Investing a fixed dollar amount on a regular schedule, buying more shares when prices are low and fewer when high
- B) Only buying stocks priced under one dollar
- C) Averaging down on losing trades until they win
- D) Converting all savings to cash every month

41. The key tax difference between a **Roth IRA** and a **Traditional IRA** is:

- A) Roth accounts cannot hold stocks
- B) Traditional contributions may be tax-deductible now with withdrawals taxed later, while Roth contributions are taxed now with qualified withdrawals tax-free later
- C) Roth IRAs have no contribution limits of any kind
- D) Traditional IRAs are only for employers

42. Before choosing between extra investing options, Level 2's retirement chapters put first:

- A) Picking the perfect stock
- B) Opening a margin account
- C) Capturing the full employer 401(k) match — it is an immediate 100% return on that money — and remembering the IRS sets contribution limits yearly, so check the current figure

- D) Day trading inside the IRA for tax-free gains

43. Under **Section 1256**, a $10,000 gain on index futures or SPX options is taxed as:

- A) 100% short-term, no matter what
- B) 100% long-term, no matter what
- C) Tax-free
- D) 60% long-term ($6,000) and 40% short-term ($4,000), regardless of how long you held it

44. Two more Section 1256 features taught in Level 2 are:

- A) Positions are marked to market at year-end, and the wash sale rule does not apply to 1256 contracts
- B) Losses can never be claimed
- C) 1256 contracts are taxed only when you retire
- D) The wash sale rule applies twice as hard

45. Trader tax status and the **Section 475 mark-to-market election** matter because:

- A) For traders who qualify and elect properly, trading losses can be treated as ordinary losses without the wash sale rule — but qualification is strict and it is a professional-advice decision, not a checkbox to guess at
- B) They guarantee a refund
- C) Anyone can claim them with no requirements
- D) They eliminate all taxes on trading

46. In the 2008 financial crisis case study, the S&P 500 fell from its October 2007 closing peak of 1,565 to its March 2009 lows by approximately:

- A) −20%
- B) −34%
- C) −57%
- D) −75%

47. In the 2020 COVID crash case study, the S&P 500 fell from its February 2020 peak to its March low by approximately:

- A) −12%
- B) −57%
- C) −20%
- D) −34%

48. In the GameStop case study, GME's intraday high in January 2021 (before the later 4-for-1 split) reached about:

- A) $483
- B) $120
- C) $48
- D) $950

49. Comparing the two great modern panics, the VIX's highest closing value was:

- A) Higher in 2008 (about 80.86) than in 2020
- B) Higher in 2020 (about 82.69) than in 2008 (about 80.86)
- C) Identical in both crises
- D) Never above 30 in either crisis

50. Breadth is weak, price sits just below the gamma flip, and implied volatility is climbing into a major data release. The best Level 2 judgment is:

- A) This is a fragile, negative-gamma tape — cut size, use defined-risk structures only, or stand aside until the environment improves
- B) Maximum size — volatility means opportunity with no extra risk
- C) Sell naked options to collect the rich premium
- D) Ignore all of it; environment never matters

RULE

Grade yourself honestly with the Answer Key, and re-study every missed module before moving on — an exam you cheat on only cheats you.



CU-04

LEVEL 2 EXAM
ANSWER KEY

Every answer explained — and the module to re-study for every miss.

Curriculum & Assessment · Team Alpha Trading

Level 2 Final Exam — Answer Key

This is the grading key for the **Level 2 Final Exam**. It matches the exam question for question, 1 through 50. For every question you get the correct letter, one line on why it is right, and the Alpha Academy Level 2 module to re-study if you missed it.

The **pass mark is 80% — at least 40 of 50 correct**. Score yourself honestly. For every miss, re-study the listed module, then retake the exam in a few days — the goal is not the grade, it is that the ideas are actually yours.

> **NOTE**
> This key is an educational study aid for Alpha Academy students. It is not a license, a certification, or financial, tax, or legal advice.

The Answers

1. B — Level 2 is the shift from naming things to understanding flow, volatility, and positioning underneath price. Re-study: AA2-01.

2. A — Bid size counts shares in resting buy orders at that price, not trades that already happened. Re-study: AA2-02.

3. C — The tape (time and sales) is the record of executed trades: price, size, and time. Re-study: AA2-02.

4. C — An aggressive buyer crosses the spread and takes the ask to be filled immediately. Re-study: AA2-03.

5. D — When heavy selling hits the bid and price will not fall, a large buyer is absorbing the supply. Re-study: AA2-03.

6. D — TICK = NYSE stocks ticking up minus stocks ticking down, at that moment. Re-study: AA2-04.

7. B — A green index with negative breadth means a few heavyweights are masking broad weakness. Re-study: AA2-04.

8. A — Extreme put/call readings mark extreme fear, which historically warns a bounce is likelier — not a signal to chase puts. Re-study: AA2-04.

9. C — The VIX is the implied volatility of S&P 500 index options over the next 30 days. Re-study: AA2-05.

10. B — 20 ÷ √12 ≈ 20 ÷ 3.46 ≈ 5.8% expected movement over 30 days. Re-study: AA2-05.

11. A — The VIX is a calculated index, not a stock; VIX products hold futures and behave differently from the index number. Re-study: AA2-05.

12. B — In contango the fund sells the cheaper expiring future and buys the pricier next one, bleeding value on every roll. Re-study: AA2-05.

13. D — $100 × 0.36 × √(7 ÷ 365) ≈ $100 × 0.36 × 0.1385 ≈ $5.00. Re-study: AA2-06.

14. C — The announcement removed the uncertainty the premium was pricing, so IV collapsed and the calls deflated despite the right direction. Re-study: AA2-06.

15. C — When the real move (3%) comes in under the priced move (8%), premium sellers keep the overpriced insurance money. Re-study: AA2-06.

16. C — A calendar spread is same strike, different expirations — a bet on time and volatility, not direction alone. Re-study: AA2-07.

17. B — A debit calendar can never lose more than the debit paid: $2.30 × 100 = $230. Re-study: AA2-07.

18. D — Diagonals combine both differences: different strikes and different expirations. Re-study: AA2-07.

19. A — A butterfly's profit peaks exactly at the center strike, where the two short options expire worthless and the wings pay most. Re-study: AA2-08.

20. C — Max profit = wing width − debit = ($5.00 − $1.20) × 100 = $380. Re-study: AA2-08.

21. A — The butterfly's long wings cap the worst case at the debit; a ratio spread's extra short option is uncovered and open-ended. Re-study: AA2-08.

22. B — Net delta adds straight across positions: +120 − 40 + 75 = +155. Re-study: AA2-09.

23. B — Shares give +200; the short calls give −(2 × 100 × 0.50) = −100; net delta = +100. Re-study: AA2-09.

24. A — Long vega means the portfolio gains when implied volatility rises and loses when it falls, whichever way price goes. Re-study: AA2-09.

25. B — The DOM ladder lists resting orders waiting at each price — intentions, not completed trades. Re-study: AA2-10.

26. D — Footprint charts break each candle down by price level and show executed buy-versus-sell volume inside it. Re-study: AA2-10.

27. A — The open concentrates overnight information into minutes, so spreads are widest and swings most violent. Re-study: AA2-11.

28. B — Repeated stalls at the same high show sellers meeting the drive; the plan response is protect profits or stand aside, never chase. Re-study: AA2-11.

29. B — Held positions are exposed to overnight and weekend gaps that jump straight past stop prices. Re-study: AA2-12.

30. D — Holding through earnings is a deliberate, sized-for-the-gap decision — never something that just happens to a swing position. Re-study: AA2-12.

31. C — Expectancy = (0.40 × $300) − (0.60 × $150) = $120 − $90 = +$30 per trade. Re-study: AA2-13.

32. C — Overfitting tunes rules to history's noise; the system describes the past instead of capturing a repeatable edge. Re-study: AA2-13.

33. B — Using the candle's close to justify an entry at its open is look-ahead bias — the information did not exist yet. Re-study: AA2-13.

34. D — With positive gamma, dealers hedge against the move — selling rallies, buying dips — which dampens swings. Re-study: AA2-14.

35. A — With negative gamma, dealers hedge with the move, so their flows push price further and moves accelerate. Re-study: AA2-14.

36. C — The gamma flip is the level where positioning changes sign; above it tends calmer, below it tends wilder. Re-study: AA2-14.

37. A — Huge call open interest concentrates dealer hedging that leans against rallies into that strike, making it resistance and a magnet. Re-study: AA2-15.

38. D — Below the flip in negative gamma with rising IV, expect speed and range — the correct response is smaller size and defined risk. Re-study: AA2-15.

39. D — For long-term investors the engine is compounding over years of staying invested, not timing headlines. Re-study: AA2-16.

40. A — Fixed amounts invested on schedule automatically buy more shares at low prices and fewer at high prices. Re-study: AA2-16.

41. B — Traditional = possible deduction now, taxed on withdrawal; Roth = taxed now, qualified withdrawals tax-free later. Re-study: AA2-17.

42. C — The employer match is an instant 100% return, so it comes first; contribution limits are set by the IRS yearly — check the current figure. Re-study: AA2-17.

43. D — Section 1256 gains are always split 60% long-term / 40% short-term: $6,000 / $4,000 on a $10,000 gain, holding period aside. Re-study: AA2-18.

44. A — 1256 contracts are marked to market each year-end, and the wash sale rule does not apply to them. Re-study: AA2-18.

45. A — Trader tax status with a timely 475 election can make losses ordinary and wash-sale-free, but qualifying is strict — a professional-advice decision. Re-study: AA2-18.

46. C — Peak (1,565, October 2007) to trough (March 2009) the S&P 500 lost roughly 57% — the defining modern crash. Re-study: AA2-19.

47. D — The COVID crash cut the S&P 500 by roughly 34% in about a month, the fastest bear market on record. Re-study: AA2-19.

48. A — GME printed about $483 intraday in January 2021, before the 2022 4-for-1 split — up from roughly $20 weeks earlier. Re-study: AA2-19.

49. B — The VIX closed at about 82.69 in March 2020, edging out 2008's closing peak of about 80.86. Re-study: AA2-19.

50. A — Weak breadth + below the flip + rising IV into data is a fragile negative-gamma tape: cut size, defined risk only, or stand aside. Re-study: AA2-15.

RULE

Missed questions are the syllabus for your next week of study — work the listed modules in order and retake until 80% feels easy.



EX-01

WORKED EXAMPLES
READING CHARTS

Breakouts, fakeouts, and flips — five chart trades with every number worked.

Alpha Academy Worked Examples · Team Alpha Trading

Worked Examples — Reading Charts in Real Time

Charts look obvious after the fact. In real time, you get one candle at a time, no replay button, and your own money on the line. This document walks through five chart situations the way a disciplined trader actually lives them: the plan written *before* the trade, the math done in dollars, and the result — win or lose.

Read each example the same way: cover the "What Happened" paragraph with your hand and decide what *you* would do at the end of "The Math." Then compare. The setups in these pages — bases, breaks, retests, trendlines, gaps — are the raw material of chart reading, and they repeat in every market, on every timeframe, because the people behind them repeat.

> **NOTE**
> These are worked educational examples with realistic prices, built to teach the math and the decision-making. They are **not** records of anyone's actual trades. Every example uses the same imaginary $10,000 account risking 1% per trade — $100 — so you can compare the five trades fairly. Losses are included on purpose: they teach more than the wins.

Example 1 — The Breakout That Worked

The Setup. A stock spends three weeks trading sideways between $56 and $60. That sideways stretch is called a **base**. The top of the base, $60, is **resistance** — the price where sellers keep pushing the stock back down. It has touched $60 four times and been rejected four times. The bottom, $56, is **support** — where buyers keep stepping in. **Volume** — the number of shares changing hands each day — has been quiet and shrinking, which is normal while a base tightens.

The Plan. Buy only if the stock breaks above $60, because a price that finally pushes through resistance has beaten the sellers at that level. The stop — the pre-set exit order that sells automatically if the trade goes wrong — goes at $58.75, back inside the base, where the breakout idea is proven wrong. The target uses the **measured move**: the base is $4 tall ($60 − $56), so project $4 above the breakout: $60 + $4 = a $64 target.

The Math. The stock breaks out and the buy order fills slightly above the level, at $60.25.

Piece	Number
Entry price	$60.25
Stop price	$58.75
Risk per share ($60.25 − $58.75)	$1.50
Shares ($100 ÷ $1.50, rounded down)	66
Real risk (66 × $1.50)	$99
Cost of the position (66 × $60.25)	$3,976.50
Reward per share to target ($64 − $60.25)	$3.75
Profit if target is hit (66 × $3.75)	$247.50

Traders call one unit of planned risk **R**. Here 1R = $99, so the target pays 2.5R — the trade risks $99 to make $247.50.

What Happened. The breakout day trades roughly double the stock's usual volume — real buying, not a trickle. The stock climbs for two days, rests for two, and reaches $64.00 on the sixth day. The sell fills at $64.00: 66 × $64 = $4,224 back, a profit of $247.50. The account goes from $10,000 to $10,247.50.

Those two resting days deserve a closer look, because they are where beginners sabotage winning trades. On the third day the stock dipped back to $61.10, and every instinct screams *sell before it goes wrong*. But the plan already answered this: the only price that matters is the stop at $58.75. A pullback that stays above the breakout level is a **retest** holding, not a failure — the old ceiling is now acting as a floor. The trader did nothing, which was the correct action. Notice what the stop really bought: not just protection, but the ability to sit still. Without a pre-set exit, every downtick becomes a fresh decision, and fresh decisions made while money moves are usually bad ones. The trade was managed exactly once — at the moment the target filled.

The Lesson. Nothing here was improvised. Entry, stop, size, and target were all decided while the stock was still in its base. The sizing did the quiet work: because the stop was $1.50 away, the account could hold 66 shares and still risk only 1%.

Example 2 — The Fakeout

The Setup. A different stock builds a base between $38 and $40, then pokes above $40 one morning. It looks almost identical to Example 1 — with one warning sign: the breakout volume is only slightly above average, not the surge of real demand seen before. A **fakeout** is a breakout that fails and falls back into the base, trapping everyone who bought the break.

The Plan. Same shape as before. Buy the break, stop back inside the base, target a measured move up.

The Math. The buy fills at $40.20. The stop is $39.30, so risk per share is $0.90. Shares: $100 ÷ $0.90 = 111 shares (rounded down). Real risk: 111 × $0.90 = $99.90. The position costs 111 × $40.20 = $4,462.20.

What Happened. By 11 a.m. sellers have pushed the stock back under $40. By noon it touches $39.30 and the stop sells all 111 shares at $39.30, returning 111 × $39.30 = $4,362.30. The loss is exactly the planned one: $99.90 — about 1% of the account, no arguments, no hoping.

It is worth replaying the moment the stock crossed back below $40, because that is where this trade is usually ruined. The temptation is to cancel the stop: *"It's back in the base, but bases launch again — I'll give it room."* Give it room to where? If the stop moves to $37, the risk on 111 shares becomes 111 × $3.20 = $355.20 — three and a half trades' worth of risk, adopted mid-trade, in the exact moment the original idea has already failed. A stop moved further away is not patience; it is a new, bigger bet placed by a stressed version of you. The weak volume warned that demand was thin, but warnings are not certainties — the same setup works other times. The stop exists precisely because you cannot know which time is which.

The Lesson. Nobody knew in advance that Example 1 would work and this one would fail — that is the entire point. Put the two side by side: +$247.50 and −$99.90 net **+$147.60**, with the worst case known before either trade was placed. A stop does not prevent losses. It converts an *unknown* loss into a *known* one, and known losses can be budgeted. The fakeout cost 1%. A trader without a stop, still holding "until it comes back," is carrying a loss nobody has measured yet.

Example 3 — Support Becomes Resistance

The Setup. A stock bounces off $45 three times over two months. That makes $45 strong support — until the day it isn't. On heavy volume the stock slices through $45 and closes at $43.80. One of the most reliable ideas in chart reading: **broken support often becomes resistance**. The buyers who defended $45 are gone, and the people who bought at $45 are now trapped — many will sell if price ever gets back to $45, just to break even. That future selling is what makes the old floor a new ceiling.

The Plan. Two trades are possible here, and one trap. The trap is buying the break at $43.80 because "it's cheap now." The disciplined trade is to wait for the **retest**: if the stock rallies back up toward $45 and stalls, short it there. **Short selling** means borrowing shares and selling them now, hoping to buy them back cheaper later and return them — you profit when price *falls*. It carries a serious warning: a stock can rise without limit, so a short's risk is theoretically unlimited, which is exactly why it still gets a stop and a 1% size.

The Math. The stock rallies to $44.90, stalls under $45, and the short fills at $44.90. The stop is $46.10 — a move back above the old level means the idea is wrong. Risk per share: $46.10 − $44.90 = $1.20. Shares: $100 ÷ $1.20 = 83 shares (rounded down). Real risk: 83 × $1.20 = $99.60. Target: the prior low area at $41.00, a reward of $44.90 − $41.00 = $3.90 per share.

What Happened. The retest fails as planned. Resistance holds, sellers return, and the stock slides to $41.00 in four sessions. The buy-to-cover fills at $41.00, banking 83 × $3.90 = **$323.70** — a 3.25R win. Meanwhile, picture the trap buyer: 100 shares bought at $43.80 are now worth $41.00, a $280 paper loss, with no stop and no exit plan — just hope.

Watch what actually happened at $45 during the retest, because it shows *why* the level worked. As price climbed back to $44.90, two groups were selling into it: traders who bought near $45 weeks earlier and swore they would exit "if I can just get out even," and fresh short sellers like ours who saw the ceiling forming. That stacked supply is the resistance — it is not a magic property of the number 45, it is a crowd of people with reasons to sell there. One more mechanical point: to exit a short you buy the shares back, which is why the exit order is called **buying to cover**. The profit shows up only when that cover happens, never before.

The Lesson. A level does not die when it breaks; it changes jobs. The money in this example was not made by predicting the break — it was made by waiting for the retest and trading it with the same boring 1% math as every other example. Direction does not matter. Structure and risk do.

Example 4 — The Trendline Break

The Setup. A stock climbs from $30 to $52 over eight months, rising in a staircase of higher highs and higher lows. A **trendline** is a line drawn under those rising lows, connecting the pullback bottoms — the staircase's handrail. To draw one, you need at least two low points; the line earns trust each time price touches it and turns up again. This stock has bounced off its line three times, which is why the line means something: it marks the slope buyers have defended all year. Our trader bought 150 shares at $40 earlier in the trend, a $6,000 position, and has held through every wiggle since.

The Plan. This example has no entry — it is about the exit, and the rule was written the day the shares were bought: *if the stock ever closes below the trendline, sell the next morning. No debate, no "let's see one more day."* Notice the word **closes**. Prices poke below a trendline during the day all the time and recover by the closing bell — those intraday dips are noise. Requiring the stock to actually finish the day below the line filters out most of the false alarms, at the honest cost of exiting a little lower than the first dip would

have. A trendline break does not predict doom. It simply says the pattern that justified holding the stock no longer exists.

The Math. The position cost 150 × $40 = $6,000. At the $52 high it was worth 150 × $52 = $7,800. After a weak session closes at $48.50 — the first close below the line in eight months — the sell fills the next morning at $48.20, returning 150 × $48.20 = $7,230. Final profit: $7,230 − $6,000 = **$1,230**, or +20.5% on the money put in.

What Happened. Two things, and both matter. First, the exit was *not* the top: the rule gave back $3.80 per share from the $52 high, and that give-back is the normal toll every exit rule charges. Second, the slide continued — two months later the stock traded at $39. Holding on hope would have turned the position into 150 × $39 = $5,850, a $150 *loss*. The rule protected a $1,380 swing between those two outcomes.

The Lesson. Exit rules are not predictions; they are pre-made decisions, written when you were calm, for a moment when you will not be. "It might come back" is always true and never a plan. And nothing about this exit is permanent — if the stock rebuilds a base and breaks out again, it can be bought again, as a brand-new trade with brand-new math.

Example 5 — Gap and Go… and Fail

The Setup. A stock closes at $25. That evening the company reports surprisingly strong earnings. The next morning the stock opens at $26.50 — up 6% (25 × 1.06 = $26.50). A **gap** is that empty space between yesterday's close and today's open, where no trading happened at all. In the first minutes the stock jumps further, and social media is loud. This is the most emotional moment in trading, and two traders handle it two ways.

The Plan. The chaser has no plan — he just buys. The patient trader's rule for gap days was written long ago: *never buy in the first 30 minutes of a gap, and if the stock cannot hold its opening price into mid-morning, there is no trade today.* Sitting out is a decision, not a failure to decide.

The Math. The chaser buys 200 shares at $27.80 as the stock spikes. No stop, no target, position cost 200 × $27.80 = $5,560 — over half the account in one excited click. The patient trader commits $0 and risks $0.

What Happened. The gap does not go. Early buyers take profits, the stock slips under its $26.50 open, and by midday it trades at $25.60. The chaser, now watching real money evaporate, sells there: 200 × ($27.80 − $25.60) = a **$440 loss**, or 4.4% of a $10,000 account — more than four properly planned trades' worth of risk, gone in one morning. The stock closes at $25.40, barely above where it closed the day *before* the big news. The patient trader loses nothing, keeps her full $100 risk budget, and can evaluate the stock fresh tomorrow.

Understand why the fade was so likely, because it was not bad luck. Overnight, the news repriced the stock from $25 to the $26.50 open — that part was the information. The extra run to $27.80 was not information; it was a crowd of buyers all arriving at once, each paying more than the last because everyone else was paying more. Crowds exhaust themselves: once everyone who was going to chase has chased, there is nobody left to buy, and the early holders — who owned the stock at $25 yesterday — happily sell into the strength. That is the anatomy of most failed gaps, and it is why the patient rule keys on the opening price: a morning gap that cannot even hold its own open is telling you the crowd is done.

The Lesson. A gap is an auction that starts at the moment of maximum emotion and minimum information. Everything the chaser paid for — the news, the excitement, the fear of missing out — was already inside the

$27.80 price. The gap-and-go pattern is real and sometimes runs, which is exactly what makes it dangerous: the wins advertise themselves, and the failures quietly cost 4.4% at a time.

What These Examples Teach

Example	Planned risk	Result
The Breakout That Worked (long)	$99	+$247.50
The Fakeout (long, stopped)	$99.90	−$99.90
Support Becomes Resistance (short)	$99.60	+$323.70
The Trendline Break (exit rule)	Position exit	+$1,230 protected
Gap and Go… and Fail (chaser)	None — unplanned	−$440

- **Risk is decided first, in dollars.** Every planned trade in this document risked about $100, win or lose, because the share count was built from the stop distance — never from excitement or account size.
- **The stop is the most important line of the plan.** It made the fakeout a boring $99.90 loss instead of an open-ended one, and it capped the short in Example 3, where careless risk is unlimited.
- **Levels change jobs.** Support that breaks becomes resistance; the retest of an old level is often a better trade than the break itself.
- **Exit rules protect profits, not predict tops.** The trendline exit gave back $3.80 a share and was still worth $1,380 versus holding on hope.
- **Excitement is a cost, and it is charged in real dollars.** The only unplanned trade in this document was also the only outsized loss — 4.4% in a single morning.
- **Winning 2.5R and 3.25R while losing 1R is a living.** You do not need to know which breakout works. You need every loss to be the small, planned kind.
- **The charts were never the hard part.** Every decision that made or lost money in these five examples was made *before* the result was known — in the plan, not in the panic.

> **RULE**
> Plan the trade in dollars before it happens — entry, stop, size, target. If any one of those four is missing, it is not a trade yet; it is a guess with money attached.



EX-02

WORKED EXAMPLES
OPTIONS TRADES

Long calls, decay, hedges, spreads, and a condor — start to finish, dollars shown.

Alpha Academy Worked Examples · Team Alpha Trading

Worked Examples — Options Trades, Start to Finish

Reading about options is one thing. Watching real dollars move through a trade — in, out, and exactly why — is where it clicks. This document walks through five complete options trades, step by step, with every dollar shown.

These are **worked educational examples with realistic prices, built to teach the math and the decision-making — they are not records of anyone's actual trades.** The companies are described, not named, because the lessons are the same no matter which stock is on the screen.

One piece of math runs through everything below, so here it is up front. One standard stock option contract controls **100 shares**. Prices are quoted **per share**, so you always multiply by 100 to get real dollars: a premium of $2.50 means $250 per contract. A **premium** is the price you pay for the option itself. A **call** is an option that gains value when the stock rises; a **put** gains value when the stock falls. The **strike price** is the price level the option is tied to, and the **expiration date** is the day the option stops existing.

Read each example the same way: first the setup and the plan, written the way a careful trader writes them *before* entering — then the math checked in the open, then what the market actually did. The gap between the plan and the outcome is where the real education lives. Two of these trades make money, one loses money on a stock that never moved, one is insurance that pays off in one direction and costs in the other, and one profits from nothing happening at all.

> **NOTE**
> This is education, not financial advice. Bought options can lose 100% of what you pay for them, and it happens often. Most people who buy options lose money. These examples include a loser on purpose — study it as hard as the winners.

Example 1 — The Long Call That Worked

The Setup. A large technology stock trades at $100 a share. A trader believes a new product launch will push it higher over the next month. Instead of buying shares, the trader buys **call options** — contracts that profit if the stock rises before they expire. The trader buys 2 contracts of the $100 call (strike price $100), expiring in about five weeks, at a premium of $2.50 per share.

The Plan. Pay a fixed, known amount for the right to benefit from a rise. If the stock reaches about $105, sell the calls and take the profit. If the stock falls below $97, or the calls lose half their value, sell and accept the loss. The most that can ever be lost is the amount paid — that is decided before the trade starts.

The Math. Each contract costs $2.50 × 100 shares = $250. Two contracts cost 2 × $250 = **$500 total**. That $500 is the entire risk — the calls can expire worthless, but the trader can never lose more than $500. The **breakeven price** at expiration is the strike plus the premium: $100 + $2.50 = **$102.50**. At expiration, the stock must be above $102.50 for this trade to make money.

What Happened. Three weeks later the product launch lands well and the stock climbs to $105. The calls are now worth $5.80 each — $5.00 of that is **intrinsic value** (the stock is $5 above the $100 strike) and $0.80 is remaining **time value** (the extra buyers pay because two weeks of life remain). The trader sells both contracts: $5.80 × 100 × 2 = **$1,160 received**. Profit: $1,160 − $500 = **$660**, a gain of 132% on the money risked.

For comparison: buying 200 shares at $100 would have cost $20,000 and gained the same $5 a share — $1,000 of profit on $20,000 at risk. The options turned $500 into $660 of profit; the shares turned $20,000 into $1,000. The options won on percentage and risked far less cash — but the shares could not have gone to zero in three weeks, and the options absolutely could have if the stock had sat still or fallen.

The Lesson. A long call is rented leverage: a small, fixed payment controls a big stock move. The rent is worth it when the move actually comes, reasonably soon. Notice the exit happened *before* expiration — the trader sold while the calls still had time value, instead of gambling on the final two weeks. One more honest detail: the trader did not need to be exactly right, just right enough, soon enough. Had the stock reached only $103 by expiration, the calls would have finished worth $3.00 each — $600 back, a modest $100 profit. The full range of endings was survivable because the amount risked was sized that way from the start.

Example 2 — The Long Call That Decayed

The Setup. A well-known retail stock trades at $50 a share. A trader expects a strong sales report to lift it and buys 1 contract of the $50 call, expiring in 30 days, at a premium of $1.80. Cost: $1.80 × 100 = **$180**.

The Plan. If the stock pops toward $54, sell for a profit. The breakeven at expiration is $50 + $1.80 = **$51.80** — the stock needs to rise $1.80 just to get the trader back to even. The trader's exit rule: if the call loses half its value, sell, whatever the reason.

The Math. Here is the part beginners miss. Because the stock sits exactly at the $50 strike, the entire $1.80 premium is time value — payment for *possibility*, not for any value the option holds today. Time value melts every single day, and the melting is called **theta decay**. The stock does not have to fall for this option to lose money. It only has to do nothing while the calendar moves. Put a daily price on it: if this call bleeds from $1.80 to $0.90 over two weeks, that is roughly $90 of value — about $6 a day — quietly evaporating from a $180 position. And decay is not a steady drip; it speeds up as expiration gets closer, so the final two weeks of an option's life are the most expensive ones to sit through.

What Happened. The stock did nothing. For two weeks it drifted between $50 and $50.60 — it never fell, and it never really rose either. The sales report came and went without excitement. But the call, which had 30 days of life at purchase, now has 16 — and its price slid from $1.80 to $0.90. The trader follows the plan and sells: $0.90 × 100 = **$90 received**, for a loss of $180 − $90 = **$90 — half the money gone, on a stock that never dropped a cent.** Had the trader held to expiration with the stock at $50.25, the call would have been worth only its intrinsic value of $0.25 — $25 back, a $155 loss.

The Lesson. When you buy an option, you are paying rent on time. Being right about a stock is not enough — you must be right *soon enough*, by more than the premium. Before buying any option, do the breakeven math ($51.80 here) and ask honestly: is a move that big, that fast, actually likely? If the stock needs to sprint just for you to break even, the trade is fighting the clock from day one.

Example 3 — The Protective Put

The Setup. An investor owns 100 shares of a software company bought at $80 a share — a position worth **$8,000**. Earnings are announced next week, and earnings are a coin flip: the stock could jump, or drop hard overnight. The investor does not want to sell the shares, but wants a floor under the damage. So the investor buys 1 contract of the $75 put, expiring in three weeks, at a premium of $2.00. Cost: $2.00 × 100 = **$200**. A put bought this way, to protect shares you own, is called a **protective put** — it is insurance, bought the same way you insure a car.

The Plan. Hold the shares through earnings no matter what. Worst case, the put guarantees the shares can be sold at $75 each. The $200 is the insurance bill, paid either way. One limit is understood up front: the policy expires in three weeks. After that date, the shares are unprotected again, and insuring the next event means paying for a new put — protection is a subscription, not a one-time purchase.

The Math. The insurance costs $200 on an $8,000 position — 2.5% of its value. The protected floor: shares can always be sold for $75 × 100 = $7,500, against a total outlay of $8,000 + $200 = $8,200. So the **maximum possible loss is $700**, known in advance. Without the put, a crash could take far more. The combined position breaks even if the stock reaches $82 — the $80 purchase price plus the $2 per share the insurance cost.

What Happened. Run it both ways, because insurance has to be judged both ways:

- **The drop.** Earnings disappoint and the stock falls to $65. The shares lose $15 × 100 = $1,500. But the put is now worth $75 − $65 = $10.00 per share — $1,000. Total result: −$1,500 on the shares, +$1,000 from the put, −$200 premium = **a $700 loss instead of $1,500.** Exactly the promised floor.
- **The rally.** Earnings beat and the stock jumps to $92. The shares gain $12 × 100 = $1,200. The put expires worthless — the $200 is gone. Total result: $1,200 − $200 = **a $1,000 gain.** The investor is not upset about the $200. Nobody regrets insurance in a year their house does not burn down.

The Lesson. A protective put converts an unknown, possibly account-wrecking loss into a small, known maximum loss. The price is a steady drag: every rally is $200 smaller in this example. That trade — certainty for a fee — is sometimes worth it around events like earnings, and it is never free.

Example 4 — The Bull Call Spread

The Setup. A big bank stock trades at $100. A trader is moderately bullish — expecting a grind up to maybe $104–$107 over the next month, not an explosion. Buying a plain $100 call costs $3.20, which feels like a lot of rent for a modest move. Instead the trader builds a **bull call spread**: buy the $100 call for $3.20, and **sell** the $105 call for $1.40, same expiration, about four weeks out. Selling the higher call hands someone else the profits above $105 — in exchange for a discount today.

The Plan. The money paid out, minus the money taken in, is the **debit**: $3.20 − $1.40 = **$1.80 per share, or $180** for one spread. That $180 is the maximum loss. Hold to near expiration and let the stock's final price decide the value.

The Math. The two strikes are $5 apart, so the most the spread can ever be worth is $5.00 — $500. Maximum profit: $500 − $180 = **$320**. Breakeven at expiration: $100 + $1.80 = **$101.80**. Now the three endings:

Where the stock ends	What the spread is worth	Result on the $180 paid
$99 (below both strikes)	$0 — both calls expire worthless	−$180 (the maximum loss)
$103 (between the strikes)	$3.00 — the $100 call is worth $3, the $105 call is worthless	$300 back, a profit of $120
$106 (above both strikes)	$5.00 — the full width of the spread	$500 back, a profit of $320 (the maximum)

What Happened. The stock grinds up exactly as expected and finishes at $103. The trader closes the spread for $300 and keeps a **$120 profit on $180 risked** — a 67% return. The stock never reached $105, so

the upside that was sold away never mattered. And notice the middle row of the table: the spread made money on a move where a plain long call bought at $3.20 would have finished worth only $3.00 — a small *loss*. The cheaper ticket lowered the breakeven from $103.20 to $101.80.

The Lesson. A spread is a trade of possibilities: you cap your best outcome to cut your cost and your breakeven. When your honest expectation is a *modest* move, paying full price for unlimited upside is buying something you do not believe in. Match the structure to the forecast. The spread has a second, quieter advantage: the call you sold decays too, and its decay works *for* you, offsetting part of the decay on the call you bought. Example 2's trader bled fast standing still; this trader bleeds more slowly — though slowly is not never: if the stock sits at exactly $100 until expiration, the spread still loses the full $180.

Example 5 — The Iron Condor That Stayed Home

The Setup. A broad market fund trades at $200. No big news is expected for the next two weeks; it has been drifting sideways for a month. A trader decides to sell that calm instead of betting on a direction, using an **iron condor** — four options sold and bought in one structure. The trader sells a $190 put and buys a $185 put below the price, and sells a $210 call and buys a $215 call above it, all expiring in two weeks. The sold options bring money in; the bought options are guardrails that cap the damage if the fund breaks out violently.

The Plan. Collect a **credit** (money paid to you up front) and keep it if the fund finishes between $190 and $210. The guardrails mean the worst case is known on day one. If the fund makes a big move toward either guardrail, close early rather than hoping.

The Math. Every leg, in dollars (each premium × 100):

Leg	Premium	Dollars
Sold the $190 put	$1.60	+$160 received
Bought the $185 put	$0.90	−$90 paid
Sold the $210 call	$1.50	+$150 received
Bought the $215 call	$0.80	−$80 paid
Net credit kept at the start	**$1.40**	**+$140**

The strikes on each side are $5 apart, so the worst case is paying out $5.00 — $500 — minus the $140 already collected: **maximum loss $360**. The structure breaks even if the fund ends at $188.60 on the downside or $211.40 on the upside. Honest framing: this trade risks $360 to make $140. That is the real shape of selling calm — frequent small wins, occasional bigger losses.

What Happened. The fund did exactly what the last month suggested: it wandered between $195 and $205 for two weeks and expired at $201. All four options expired worthless — the fund finished above $190, so the sold put owed nothing, and below $210, so the sold call owed nothing; the guardrail options were never needed. The trader keeps the entire **$140 credit**.

The Lesson. The iron condor wins when *nothing much happens* — it is a bet on a range, not on a direction, and time decay works for the seller instead of against them. But respect the shape: the maximum loss ($360) is more than two and a half times the maximum win ($140). One violent week can erase several quiet wins, which is why condor traders size these small and close them early when the range breaks,

instead of holding and hoping. Many also close early on the winning side: if halfway through, the condor can be bought back for $70 — half the credit — they pay it, lock in the other $70 as profit, and free the account for the next trade rather than risking $360 for two more weeks to squeeze out the rest.

What These Examples Teach

- **Multiply by 100, always.** Every premium in this document became real dollars through the ×100 contract multiplier. If you skip it, every number you plan with is wrong by a hundred times.
- **Do the breakeven math before entering, not after.** $102.50, $51.80, $101.80 — in each trade the stock's required move was known on day one. If the required move looks unlikely, the trade is bad no matter how good the story sounds.
- **Time is a cost for buyers and income for sellers.** Example 2 lost half its value on a stock that never fell. Example 5 collected money *because* two quiet weeks passed. The calendar is always working on someone — know which side of it you are on.
- **Know your maximum loss before you know anything else.** $500, $180, $700, $180, $360 — every structure in this document had its worst case priced in advance. If you cannot state your maximum loss in one sentence, you do not understand the trade yet.
- **Structure is a choice, not a detail.** The same bullish idea appeared as a plain call (Example 1), an insurance policy (Example 3), and a spread (Example 4) — with different costs, breakevens, and worst cases. Pick the structure that matches what you actually expect, and what you can actually afford to lose.
- **A plan with an exit beats a hope.** Every winner here sold on a plan, and the decay loser was *limited* by one. The exit rule is written before the trade, while you are calm — not invented during it, while you are not.

> **RULE**
> Before any options trade, say three numbers out loud — what you paid (in real dollars, ×100), your breakeven, and your maximum loss. If any of the three surprises you, you are not ready to place the trade.



EX-03

WORKED EXAMPLES
THREE ODTE DAYS

A trend day, a chop day, and a CPI morning — hour by hour.

Alpha Academy Worked Examples · Team Alpha Trading

Worked Examples — Three ODTE Days

0DTE means options that expire today — "zero days to expiration." A contract bought at 10 in the morning is dead by the closing bell at 4 PM, win or lose. That makes 0DTE the fastest, cheapest, and most dangerous corner of the options market: prices are small, moves are violent, and **theta** — the daily melt in an option's price as time passes — is not a gentle slope on expiration day. It is a cliff.

This document walks through three complete trading days, hour by hour: a trend day, a chop day, and a CPI morning. Each one follows the same trader working the **SPX** (the S&P 500 index itself). SPX options are **cash-settled** — at expiration they pay or take cash based on the index level, never shares — and **European-style**, meaning they can only be exercised at expiration, so there is no early-assignment surprise. Every debit and credit below is multiplied by 100, because one index option contract controls 100 units: a price of $1.40 means $140 of real money.

> **NOTE**
> These are worked educational examples with realistic prices, built to teach the math and the decision-making. They are not records of anyone's actual trades, and they are not financial advice. Most people who buy 0DTE premium lose money at it — read these days carefully and you will see exactly why, and what the survivors do differently.

Example 1 — The Trend Day

The Setup. A Tuesday with nothing on the economic calendar. SPX opens at 6,000 and spends the first half hour going nowhere, between 5,994 and 6,006. Our trader's read: the market is balanced, but underneath, every small rally is being sold. She decides that *if* sellers take control below the opening range, she will play the downside with a **put debit spread** — she buys one put and sells a cheaper put further down. The sold put caps her profit, but it also cuts the price of the trade and softens the theta melt, which matters enormously on expiration day. Her structure, chosen in advance: buy the 5960 put, sell the 5945 put — a spread 15 points wide.

The Plan. Written before any order is placed:

- Enter only if SPX breaks below 5,994 with momentum after 10 AM.
- Risk: the full debit, nothing more. No adding, no second trade if this one fails.
- Exit for a loss: if a 15-minute candle *closes* back above 6,005 — above the opening area — the idea is wrong, get out at market.
- Exit for a win: sell when the spread reaches $4.00, or at 2:30 PM at whatever price is there. No holding into the final 90 minutes — late-day swings on expiration day can erase a winning spread faster than any other hour.
- Size: 2 spreads.

The Math. At 10:15 AM, SPX trades at 5,990 and sliding. The 5960/5945 put spread costs **$1.40**.

- Cost per spread: $1.40 × 100 = **$140**
- Total risk: $140 × 2 spreads = **$280** — this is also the maximum possible loss, because a debit spread can never lose more than the debit paid
- Maximum possible profit: the spread is 15 wide, so the most it can ever be worth is $15.00. Max profit = ($15.00 − $1.40) × 100 × 2 = **$2,720**

She pays $280. The trade is on.

What Happened. Hour by hour:

- **11:00 AM** — SPX 5,978. The spread marks at $2.10. Value of her position: $420. Unrealized gain: +$140.
- **12:00 PM** — SPX 5,966. The spread marks at $2.95. Position value: $590, up +$310. The decline is orderly — lower highs, lower lows, no panic.
- **12:30 PM** — the bounce. Buyers push SPX from 5,966 back up to 5,984 in twenty minutes, and her spread sags from $2.95 to $2.05. On paper she has just "lost" $180 of open profit. This is the moment this example exists for. Every instinct says sell, lock in the small gain, stop the pain. But her written plan says the exit signal is a 15-minute *close* above 6,005 — and the bounce stalls at 5,984, with its highest 15-minute close at 5,980. Signal not triggered. She does nothing. Doing nothing was the trade.
- **1:00 PM** — the bounce fails. SPX 5,968 and rolling over again. The spread recovers to $3.30; position value $660.
- **2:05 PM** — SPX 5,960. The spread prints **$4.10**, through her $4.00 target. She sells both spreads: $4.10 × 100 × 2 = **$820 received**. Profit: $820 − $280 = **+$540**.
- **3:00 PM** — SPX 5,952, still heavy. Her spread, had she held, would be marking around $5.60. A second, smaller wave of second-guessing is available here — *sell now and you were wrong twice* — and she ignores it the same way. The plan had two exits, target and time, and one of them fired. The position no

longer exists, so its price no longer matters.

- **Close** — SPX finishes at 5,949, down 51 points on the day. A clean, one-way trend day, the kind that looks obvious on the evening chart and felt like a coin flip at every single bounce while it was happening.

SPX closes at 5,949. Which means her 5960 put settled worth 5960 − 5949 = $11.00, the 5945 put expired worthless, and the spread she sold for $4.10 settled at $11.00 — $2,200 for the pair. She "left" $1,380 on the table.

The Lesson. Two lessons, and the second is the one nobody wants. First: the plan earned its money at 12:30, not at entry. A bounce against a trend trade is normal; the exit rule existed precisely so that a normal bounce could not talk her out of a working position. She did not predict the bounce would fail — she simply refused to improvise. Second: grading the 2:05 sale by the 4:00 close is hindsight, and hindsight is a liar. The same "just hold it" habit that would have paid $2,200 on this day gets wiped out on a reversal day, when a $4.10 spread at 2 PM is worth $0.40 by 3 PM. She sold at her pre-written target, on time, per plan. That is a *good trade*, full stop — the fact that holding would have made more is trivia, not evidence.

> **RULE**
> On a trend day, your plan does the holding. If you find yourself renegotiating the exit at every bounce, you never had a plan — you had a hope with a debit attached.

Example 2 — The Chop Day

The Setup. A Thursday, also with no major news. SPX opens at 6,018 — and then simply stops going anywhere. All day long it rattles between **6,012 and 6,024**, a range of just 12 points: up to the top, down to the bottom, back to the top, for six and a half hours. Same trader as Example 1. Different mistake available today: not a wrong direction, but a wrong *tool*.

The Plan. Honestly? There barely was one. She came in expecting "a move" and intended to buy whichever direction looked like it was breaking out. No rule for what to do if nothing broke out. Watch what that costs.

The Math. Three trades, one contract each, all long premium:

Trade	What she bought	Paid	Sold for	Result
Trade 1 (9:45 AM)	6025 call, SPX at 6,020 near the top	$1.85	$0.90	−$95
Trade 2 (11:15 AM)	6010 put, SPX at 6,013 near the bottom	$2.00	$0.90	−$110
Trade 3 (1:30 PM)	6020 call, SPX at 6,019 mid-range	$1.60	$0.80	−$80

Total damage: $95 + $110 + $80 = **−$285**.

Now the trade she did *not* take. At 10:00 AM, with SPX at 6,018 and the morning's high at 6,024, she could have sold a **call credit spread** above the range: sell the 6035 call, buy the 6045 call, same expiration. A credit spread collects money up front and profits if price stays away from the sold strike. The market was pricing it at a **$1.20 credit**:

- Cash received: $1.20 × 100 = **$120**
- Maximum loss: the spread is 10 wide, so ($10.00 − $1.20) × 100 = **$880** — real risk, posted as collateral
- What it needed: SPX to close below 6,035. The day's high was 6,024. The spread would have expired worthless and kept the entire **+$120**.

Same day, same market, same trader skill. Buyer: −$285. Seller of one defined-risk spread: +$120.

What Happened. Hour by hour:

- **9:45 AM** — SPX pushes to 6,023. It "looks like a breakout," so she buys the 6025 call at $1.85. By 10:30 the push has failed, SPX is 6,013, and the call — hit by both the price drop *and* an hour of expiration-day theta — is $0.90. She sells. −$95.
- **11:15 AM** — SPX is back at 6,013, pressing the lows. "Now it's breaking down." She buys the 6010 put at $2.00. By 12:15 SPX has bounced to 6,022, the put is $0.90, she sells. −$110. Notice the pattern: she bought the top, then bought the bottom. The range was trading *her*.
- **Afternoon** — the range narrows to roughly 6,015–6,021. Nothing is happening, which is exactly the information she needed: by 11 AM the day had already announced itself as a range. Instead, at 1:30 PM she buys one more call "for the afternoon move." There is no afternoon move. Theta does the whole job by itself; she exits at $0.80 at 2:45. −$80.
- **Close** — SPX settles at 6,017, one point from where it opened. The index traveled thousands of points up and down during the day if you add up every wiggle — and ended exactly nowhere. Every one of

those wiggles was long enough to tempt a premium buyer and too short to pay one.

One more number worth sitting with: her three trades cost $185 + $200 + $160 = **$545 of premium purchased**, and she recovered $90 + $90 + $80 = **$260** of it. She did not lose because any single call was foolish. She lost because expiration-day decay charges rent by the hour, and she paid it three times in a market that never moved more than 12 points in either direction.

The Lesson. In a dead range, a bought 0DTE option is a melting ice cube you paid full price for. Every trip from 6,024 to 6,012 was about 12 points — a real move on a chart — but after theta took its hourly cut, none of those trips was long enough or fast enough to pay a premium buyer. Two separate failures stacked: she kept *buying* in the one environment where buying is structurally punished, and she did it three times instead of recognizing the day type after the first loss. Be fair to the credit spread, though: it risked $880 to make $120, and on Example 1's trend day that same spread is a loser. The lesson is not "always sell premium." It is **match the tool to the day** — trends pay buyers, dead zones pay sellers, and the most expensive habit in 0DTE is insisting the day be something it has already told you it is not.

Example 3 — The CPI Morning

The Setup. CPI — the Consumer Price Index, the government's big monthly inflation report — prints at 8:30 AM ET, an hour before the stock market opens. It is the most reliably violent scheduled event in index trading: prices can jump dozens of points in minutes, and **implied volatility** (the fear-and-uncertainty charge baked into option prices) is at its highest right before the number and collapses the moment the number is out. That collapse has a name: **IV crush**. Today the report comes in cooler than expected — inflation softer than feared — and the market rips upward. Two traders watch the same morning. One chases. One waits.

The Plan. The patient trader's rules for report mornings are written down and absolute:

- No trades in the first 15 minutes. None. The opening minutes belong to algorithms and panic.
- Let the first spike spend itself before judging anything.
- If a trade comes, use a debit spread, sized to lose the full debit without flinching.

The chaser's plan is a feeling: "CPI days move big. Get in."

The Math. *The chaser:* at 9:38 AM, with SPX at 5,997 and still climbing, he buys one 6000 call at **$3.40** — $340 out of his account. That price is stuffed with event premium: he is paying for a move that has *already happened*. *The patient trader:* at 10:05 AM, with the spike stalling, she buys a 5985/5970 put debit spread — 15 wide — for **$2.30**, a $230 maximum risk.

What Happened. Hour by hour:

- **9:30 AM** — the market opens at 5,960, already up sharply from yesterday on the cool print. Buying is frantic.
- **9:40 AM** — SPX hits **6,000**, up 40 points in ten minutes. The chaser's call, bought two minutes earlier at $3.40, is already worth only about $3.10 *even though price ran straight at his strike* — IV crush took the event premium out the moment the opening chaos passed. He is losing money on a correct guess. That is IV crush, and it is the tuition most CPI-morning buyers pay.
- **9:55–10:05 AM** — the spike stalls exactly at 6,000, a big round number where sellers were waiting. The patient trader watches the push fail twice. At 10:05, SPX 5,994 and slipping, she buys her put spread for $2.30.
- **10:15 AM** — the reversal bites: SPX 5,984, twenty points off the high — half the spike gone, just as these mornings so often do. The chaser's 6000 call, now 16 points out of the money with theta accelerating, is $0.90. He sells. **−$250** ($340 paid, $90 recovered).
- **11:00 AM** — SPX reaches 5,980 and steadies. The patient trader's spread marks at **$4.60**. She sells: $460 received against $230 paid = **+$230**. Not the stuff of legends — exactly half the size of the chaser's loss, in the opposite direction.
- **12:00–2:00 PM** — the market does almost nothing, grinding sideways between 5,978 and 5,986. This quiet stretch is worth naming: it is where CPI mornings go to be forgotten, and it is also where impatient traders manufacture a second loss trying to "win the morning back." Both of today's traders leave it alone — the chaser because his account and his confidence are both hit, the patient trader because her plan had one trade in it, and she already took it.
- **Afternoon** — SPX bases around 5,982 and drifts into a quiet close at 5,988. Neither trader trades again. That, too, is part of the example.

The Lesson. Both traders read the morning correctly — the spike was real, and spikes after hot or cool prints frequently give back half the move. The difference was never the opinion; it was the *price and the timing*. The chaser bought the most expensive premium of the day, at the most emotional minute of the day, and IV crush plus the reversal took him apart in under forty minutes. The patient trader gave up the first 40 points — all of them — and bought cheaper premium, with defined risk, only after the market showed its hand. Her reward was smaller than the chaser's fantasy and larger than his reality. On event mornings, the first move is information. Treat it that way, and let someone else pay for it.

What These Examples Teach

- **The plan is written before the trade, or it does not exist.** Example 1's profit was manufactured at 12:30 PM by a rule written at 10 AM — holding through the bounce was a procedure, not a prediction.
- **Expiration-day theta is a cost of doing business for buyers and a tailwind for sellers.** Every hour a long 0DTE option sits still, it bleeds. If your idea needs "a few hours to work," a same-day option is the wrong vehicle.
- **Match the tool to the day type.** Trend days pay debit spreads and punish credit spreads; dead ranges do the opposite. The most expensive sentence in 0DTE is "this range has to break eventually" — said while buying premium into it, three times.
- **Defined risk changes your psychology, not just your math.** Every structure in these examples could lose only its stated maximum. That is what made holding, waiting, and stopping possible. Undefined risk makes traders emotional; capped risk lets them follow rules.
- **Event mornings are IV crush with a news costume on.** The chaser lost $250 while being *right* about the spike. On CPI days, the first move is information — let it print, let volatility collapse, then decide with cheaper prices and a cooler head.
- **Grade decisions, not outcomes.** Selling at $4.10 what later settled at $11.00 was a good trade executed correctly; buying the top tick of a 12-point range three times was a bad process that no lucky bounce would have redeemed. Review your process and the scoreboard takes care of itself — slowly, and only if you survive.

> **RULE**
> In 0DTE, you do not get paid for being right. You get paid for being right, at the right price, with the right structure, while following a plan you wrote when you were calm.



EX-04

WORKED EXAMPLES
FUTURES TRADES

ES, MES, NQ, and gold — with real tick math on every trade.

Alpha Academy Worked Examples · Team Alpha Trading

Worked Examples — Futures Trades With Real Tick Math

Reading about futures is one thing. Watching the points turn into actual dollars — tick by tick, with nothing rounded away and nothing hidden — is where the instrument finally makes sense. That is what this document does. It walks through four complete futures trades, slowly, showing every conversion from price movement to money.

> **NOTE**
> These are worked educational examples with realistic prices, built to teach the math and the decision-making. They are **not** records of anyone's actual trades. No real account made or lost this money. The prices, entries, and exits were constructed so every number can be checked by hand — and you should check them, because being able to check the math yourself is the real skill being taught here.

Futures scare beginners for one reason: the numbers move in a code. Price moves in **points** and **ticks**, and neither word sounds like money. By the end of these four examples, you will be fluent in translating both into dollars — and you will see why professional futures traders plan every trade in risk first and profit second, and why the small **micro contracts** exist at all.

Before the Examples: Points, Ticks, and Dollars

A **point** is a move of one full unit in the price. If the ES (the futures contract on the S&P 500 index) rises from 6,020 to 6,021, it moved 1 point. A **tick** is the smallest move a contract is allowed to make. For the ES, the tick is 0.25 of a point, so price moves in quarter-point steps: 6,020.00, 6,020.25, 6,020.50, and so on.

Every contract has a fixed dollar value for each point and each tick. These values never change and are set by the exchange (CME, the Chicago Mercantile Exchange, where these contracts trade):

Contract	One point is worth	One tick	One tick is worth
ES (S&P 500)	$50	0.25 point	$12.50
MES (Micro S&P 500)	$5	0.25 point	$1.25
NQ (Nasdaq-100)	$20	0.25 point	$5
MNQ (Micro Nasdaq-100)	$2	0.25 point	$0.50
GC (Gold)	$100	0.10 point	$10

That gives you two ways to price any move, and they must always agree:

- **By points:** points moved × dollars per point = dollars.
- **By ticks:** ticks moved × dollars per tick = dollars.

In every example below, the math is shown *both* ways, on purpose. If the two answers ever disagree, an error has crept in — that cross-check is how traders catch mistakes before the market charges them for one. One more term: **R** means the planned risk of a trade. If you plan to lose at most $500, then $500 is 1R, a $1,000 profit on that trade is +2R, and R is the scoreboard every example uses, because it lets you compare trades of completely different sizes fairly.

Example 1 — ES Trend Day

The Setup. Some days the market picks a direction early and simply goes, all day, in one direction. Traders call that a **trend day**. The fingerprint is the **opening range** — the high and low of the first 30 minutes of the regular session. On a trend day, price breaks out of that range and never comes back. On this morning, ES opens at 6,005 and spends the first half hour between 5,998 and 6,018. Late in the morning, price pushes through 6,018 — the top of the range — and, importantly, stays above it on a small pullback. That hold is the signal our example trader acts on: the range has broken upward and buyers are defending it.

The Plan. The trader buys 1 ES contract at 6,020, just above the breakout. The **stop** — a resting order that automatically sells the position if price falls to a chosen level, capping the loss — goes at 6,010. The logic: if price falls back to 6,010, it is back *inside* the old range, the breakout has failed, and the idea is simply wrong. The account is $50,000, and the trader's rule is to risk about 1% per trade — roughly $500. Notice what happens next: the math, not a feeling, confirms the size. One contract risks exactly $500, as the math below shows. So the size is 1 contract — not because the trader is timid, but because 2 contracts would break the rule. There is no fixed profit target; on a trend day the plan is to hold while price stays above the broken range and exit late in the day.

And the downside is just as defined. If the breakout fails and the stop fills at 6,010, the result is −10 points = −$500 = −1R, and the $50,000 account becomes $49,500 — a 1% dip, agreed to in advance, with no decision left to make in the heat of the moment.

The Math. Risk first. Entry 6,020, stop 6,010: the distance is 6,020 − 6,010 = **10 points**.

- By points: 10 points × $50 per point = **$500 risk**.
- By ticks: 10 points ÷ 0.25 per tick = 40 ticks; 40 ticks × $12.50 = **$500 risk**. The two routes agree.

What Happened. Price stair-steps upward all afternoon — small rises, small pauses, never a real pullback below the morning range. This is the trend day doing what trend days do. Following the plan, the trader holds and exits at 6,052 late in the session. The gain is 6,052 − 6,020 = **32 points**.

- By points: 32 points × $50 = **+$1,600**.
- By ticks: 32 points ÷ 0.25 = 128 ticks; 128 × $12.50 = **+$1,600**. Agreement again.
- In R: $1,600 ÷ $500 = **+3.2R** — the trade paid 3.2 times what was risked.

The Lesson. Nobody knew at 6,020 that the day would trend. The trader did not predict +32 points; the trader took a defined $500 risk on a clean signal and let a strong day pay what it paid. On a choppy day, this exact same plan produces a plain −$500 loss at the stop — and that is fine, because the loss was chosen in advance. The skill is not finding trend days. The skill is risking an amount that lets you survive the ordinary days and still be present, at full planned size, on the extraordinary ones.

Example 2 — The Same Trade on MES

The Setup. Same morning, same chart, same breakout at 6,020 — but a different trader, with a **$5,000 account**. This trader sees the identical setup and wants it. Watch what the ES math does to a small account: one ES contract risks $500, which is 10% of $5,000. One loss is survivable but painful; five losses in a row — a completely ordinary streak in trading — costs $2,500, half the account. The setup is good. The contract is wrong.

The Plan. Enter the **MES**, the micro version of the ES. It tracks the exact same index, shows the exact same prices, and breaks out at the exact same 6,020 — but each point is worth $5 instead of $50, exactly

one-tenth. The trader buys **2 MES contracts** at 6,020, with the stop at the same 6,010 and the same plan to hold a trend day.

The Math. Per contract, the distance is still 10 points — the chart does not know or care which contract you hold.

- Risk per MES contract: 10 points × $5 = **$50**. By ticks: 40 ticks × $1.25 = **$50**. (Compare: $500 on the ES. The dollars divided by 10, exactly.)
- Total risk on 2 contracts: 2 × $50 = **$100** — 2% of the $5,000 account, a sane size.
- The day trends the same way, exit 6,052, gain 32 points: 32 × $5 = **$160 per contract** (128 ticks × $1.25 = $160, checking out), and 2 × $160 = **+$320 total**.
- In R: $320 ÷ $100 = **+3.2R** — *identical* to the ES trade.

What Happened. The small-account trader made $320 instead of $1,600, on the same idea, the same day, the same chart — and slept fine the night before, because the worst case was a planned $100.

Run the *bad* streak both ways and the micro's purpose gets even clearer. Five planned losses in a row on 2 MES contracts cost 5 × $100 = $500 — 10% of the $5,000 account: painful, survivable, recoverable. The same five losses on 1 ES contract cost $2,500 — half the account gone, a hole that requires a 100% gain just to climb back to even. Same trades. Same skill. Radically different damage.

The Lesson. This is why the micro contracts exist. They were created so that position size can fit the account instead of the account being forced to fit the contract. R — the quality of the trade — is exactly the same on both. Only the dollars scale. A beginner who learns on MES is playing the real game, with real money and real emotions, at one-tenth the tuition. When the account and the record justify it, the same skills transfer to the full-size contract unchanged, because the chart, the plan, and the math are literally the same — only the multiplier moved.

Example 3 — NQ Range Day: Two Fades on MNQ

The Setup. Not every day trends. On a **range day**, price bounces between a ceiling and a floor like a ball in a hallway. Today the NQ (Nasdaq-100 futures) is trapped between **21,120** at the bottom and **21,200** at the top — an 80-point range — and has already bounced off both edges twice. **Fading** means trading *against* price at the edge: selling near the top, expecting the bounce down; buying near the bottom, expecting the bounce up. Our trader uses 2 MNQ contracts ($2 per point) and an $8,000 account.

The Plan. Fade each edge the same way: enter near the extreme, target the middle of the range (21,160), and place the stop just *outside* the range — because a range trade is only wrong when the range breaks, and the stop must sit exactly where the idea dies. Risk per fade: 20 points × $2 × 2 contracts = **$80**, about 1% of the account. The target is the same 21,160 on both fades — roughly 32 points from each entry — and that is deliberate: the middle of the range is the one place price visits on nearly every trip across, while demanding the far edge demands a perfect full crossing. Fading is a business of taking the reliable middle, not the heroic whole.

The Math and What Happened — Fade One (the win). Mid-morning, price pushes up to 21,192, near the ceiling. The trader sells 2 MNQ at 21,192, stop at 21,212 (20 points above entry, just over the range high). Price stalls, rolls over, and drifts down to the middle of the range. Exit at 21,160: the gain is 21,192 − 21,160 = **32 points**.

- Per contract: 32 points × $2 = $64. By ticks: 32 ÷ 0.25 = 128 ticks × $0.50 = $64. ✓

- On 2 contracts: **+$128**, which is $128 ÷ $80 = **+1.6R**.

The Math and What Happened — Fade Two (the loss). In the afternoon, price slides to the bottom edge. The trader buys 2 MNQ at 21,128, stop at 21,108 (20 points below entry, just under the range low — same $80 risk). This time the bounce never comes. Fresh selling pushes price straight through 21,120: the range is breaking. The stop fills at 21,108. Loss: 20 points × $2 × 2 contracts = **−$80**, exactly **−1R**, exactly as planned.

The Lesson. Add the day up: **+$128 − $80 = +$48 net**, or +0.6R, on a record of one win and one loss. Beginners assume you must be right most of the time; range math shows the truth — if your wins are bigger than your losses, you can be wrong half the time and still finish green. And notice what made the whole day safe: the stops sat *outside* the range. Ranges always break eventually — it happened on fade two — and when they do, an unstopped fade becomes a runaway loss in the new trend. The planned $80 loss was not a failure of the system. It was the system working precisely as designed, on the trade where the idea stopped being true.

Example 4 — The Stop That Saved the Account (GC)

The Setup. Gold (GC) has been climbing for days. This morning it pulls back to **2,650.0** — an area that held as support twice before — and steadies there. Our trader buys **1 GC contract at 2,650.0**, expecting the uptrend to resume. Gold's numbers demand respect: 1 point = $100, and a 0.10 tick = $10, so even small-looking price moves are real money. The account behind the trade is $40,000, which makes the planned risk below the trader's standard 1%.

The Plan. Stop at **2,646.0**, four points below entry — under the support that justified the trade. Target 2,662.0, twelve points up.

- Planned risk: 4.0 points × $100 = **$400**. By ticks: 4.0 ÷ 0.10 = 40 ticks × $10 = **$400**. ✓
- Planned reward: 12.0 points × $100 = **$1,200** — a clean 3R plan ($1,200 ÷ $400).

The Math and What Happened. A few hours in, a surprise economic headline crosses the wire — the kind nobody can schedule around — and gold does not drift down. It *drops*, hard and fast, straight through the entry and through the support. The stop order fills at 2,646.0. Realized result: **−$400, exactly the planned loss.** The trade is over. The trader's honest first feeling is irritation: the stop "cost" $400 on a trade that might have recovered.

Then the afternoon happens. Gold never bounces. It slides, pauses, slides again, and closes the day at **2,622.0**.

The counterfactual — the same trade with no stop. A trader who "didn't want to take the loss" and simply held would have watched the position sink from 2,650.0 to 2,622.0: a move of **28.0 points**.

- By points: 28.0 × $100 = **−$2,800**.
- By ticks: 28.0 ÷ 0.10 = 280 ticks × $10 = **−$2,800**. ✓

That is **seven times** the planned risk (2,800 ÷ 400 = 7) — 7% of the account gone in a single afternoon, and exactly the kind of day that makes traders quit, or worse, double the next position trying to win it back. It also erases seven normal losses' worth of account, with the worst part unknown the whole way down: at 2,640, would you have held? At 2,630? Hope is not an exit plan, and every point of that slide was another $100 decision made by a stressed person in real time. The stop made the decision once, calmly, in advance: it *lost* $400 and, in the same act, *prevented* the extra $2,400 of damage between 2,646.0 and 2,622.0.

The Lesson. A stop does not prevent losses — nothing does. A stop **pre-decides** them, at a size you chose while thinking clearly, and it converts the worst sentence in trading — "it went how far against me?" — into a fixed number you already agreed to. Judge a stop not by the small red number it prints, but by the catastrophic one it makes impossible. On this day, $400 was not the cost of the trade. It was the price of insurance, and the insurance paid out $2,400.

What These Examples Teach

- **Fluency is safety.** Every futures result is just points × dollars-per-point, cross-checkable by ticks × dollars-per-tick. If you cannot do that math in your head for your contract, you do not yet know what you are risking — learn the table before anything else.
- **The plan comes before the entry.** In all four examples, the stop, the size, and the exit logic were written down before the trade existed. Nothing was improvised mid-trade, including on the losing trades.
- **Risk is sized by math, not confidence.** The ES example risked $500 because 10 points × $50 said so; the MES example shows the same idea deliberately scaled to a smaller account. The contract is chosen to fit the risk — never the other way around.
- **R is the honest scoreboard.** +3.2R, +3.2R, +0.6R on a one-win day, and a contained −1R day inside Example 4's plan. Dollars flatter and frighten; R tells you whether the trading itself was good.
- **You do not need to be right most of the time.** Example 3 finished profitable with a 50% win rate because the win (+1.6R) was bigger than the loss (−1R). Win size and loss discipline matter more than win rate.
- **Stops cap the worst day, not the average day.** The $400 GC stop looked like a cost for about an hour — then it was the only thing standing between the trader and a −$2,800 afternoon. The trades that end accounts are never the planned losses.
- **Losers handled well are tuition; losers handled badly are damage.** Both losses in this document were planned, sized, and survived without emotion changing a single decision. That — not any single winning trade — is what staying in the game actually looks like.

> **RULE**
> Before any futures trade, say the sentence out loud: "I am risking ___ dollars to make ___ dollars, and my stop is ___." If you cannot finish that sentence with real numbers, you are not ready to enter — in futures, the points are small and the dollars are not.



EX-05

WORKED EXAMPLES
SWING TRADES

A clean winner, a loser cut right, a loser held wrong, and an earnings gap.

Alpha Academy Worked Examples · Team Alpha Trading

Worked Examples — Swing Trades: Winners, Losers, and the Space Between

A **swing trade** is a trade you hold for days or weeks instead of minutes or hours. You buy, you go to sleep, you wake up, and you are still in the trade. That one fact — sleeping while you own something — changes everything about the risk, and it is why swing trades deserve their own set of worked examples.

These are **worked educational examples with realistic prices, built to teach the math and the decision-making — they are not records of anyone's actual trades.** No real company is being described, and no real person's account is shown. The prices, share counts, and dollars are invented, but the arithmetic is real, and every number below is checked: shares times price difference always equals the profit or loss stated.

All four examples use the same trader with the same account: **$25,000**, risking **1% per trade**. One percent of $25,000 is **$250**, so every plan below is built to lose about $250 if the trade fails. That unit has a name traders use constantly: **R**. One R is the amount you planned to lose on a trade. A trade that loses its planned amount is a **−1R** loss. A trade that makes three times the planned risk is a **+3R** win. R lets you compare trades of different sizes honestly, and you will see it used in every example.

> **NOTE**
> This document is education, not financial advice. Most beginners lose money trading, and swing trading adds a risk day trading does not have: prices can jump overnight while you cannot act. These examples exist to teach you how the risk works before your own money teaches you.

Example 1 — The Clean Winner

The Setup. A large footwear and apparel company has been climbing steadily for months. The stock pulls back — a normal, healthy dip inside an uptrend — down to **$80**, a price level where buyers stepped in twice before. The trader's written plan says a pullback to a proven level, in a stock already moving up, is the kind of trade they take.

The Plan. Entry at **$80**. The **stop-loss** — an order placed in advance that automatically sells your shares if price falls to a set level, so the exit decision is made before emotion shows up — goes at **$74**, below the level where buyers stepped in before. If price reaches $74, the idea behind the trade is proven wrong, and the trader wants out. The target zone is **$98**, near the stock's previous high, where sellers showed up last time.

Risk per share: $80 − $74 = **$6**. Risk budget: $250. Shares: $250 ÷ $6 = 41.67, rounded **down to 41 shares** (you always round down — rounding up risks more than the plan allows). Planned risk: 41 × $6 = **$246**. Cost of the position: 41 × $80 = **$3,280**. Notice the difference: the trader controls $3,280 of stock but has only $246 at risk if the plan holds. Position size and risk are not the same number, and confusing them is how beginners blow up.

The reward side also checks out before entry: $98 − $80 = $18 of possible gain per share against $6 of risk — **3 dollars of potential reward for every 1 dollar of risk**.

The Math. If the stop is hit: 41 shares × $6 = −$246 (−1R). If the target is hit: 41 × $18 = +$738 (+3R).

What Happened. The stock based quietly for a few days, then climbed — but not in a straight line. About a week in, the whole market had a bad day and the stock dipped to **$76**, just $2 above the stop. The trader did nothing, because nothing in the plan had changed: $76 is not $74, and a plan you abandon at the first uncomfortable moment is just a suggestion. The dip recovered within two days. Just under three weeks after entry the stock reached the $98 target zone. The trader sold there, at $98, exactly as the plan said — no holding out for $100 "just to see." Profit: 41 × ($98 − $80) = 41 × $18 = **+$738**, which is $738 ÷ $246 = **exactly +3R**. The account went from $25,000 to $25,738 — a gain of about 2.95% from one patient trade.

The Lesson. Nothing about this win was improvised. The entry, the exit-if-wrong, and the exit-if-right were all decided before the first dollar moved, and the size came from the stop distance, not from how confident the trader felt. Also notice what did *not* happen: the trader did not move the target higher mid-trade out of greed. A plan you keep editing is not a plan.

Example 2 — The Loser Cut Right

The Setup. A national home-improvement retailer has traded sideways in a flat range for two months. It pushes above the top of that range to **$95**, and the trader buys, planning for the breakout to carry higher.

The Plan. Entry at **$95**. Stop at **$85**, back below the range — if price is there, the breakout has clearly failed. Risk per share: $95 − $85 = **$10**. Shares: $250 ÷ $10 = **25 shares exactly**. Planned risk: 25 × $10 = **$250**. Cost: 25 × $95 = **$2,375**. The target zone was $125, which would have been 25 × $30 = +$750, another 3-to-1 plan.

The Math. Stop hit: 25 × $10 = −$250 (−1R). Target hit: 25 × $30 = +$750 (+3R).

What Happened. The breakout never got going. The stock sagged for four straight days and touched $85 on day four. The stop-loss order filled at $85 in a normal, orderly market — the stock was trading actively, so the sell went through right at the planned price. Loss: 25 × ($85 − $95) = **−$250, exactly −1R**. The

account went from $25,000 to $24,750. The trader wrote three lines in the journal — setup, result, "plan followed" — and was done thinking about it by dinner.

One more thing happened, weeks later: the stock kept sliding and eventually traded at $71. The stop the trader obeyed had avoided a further 25 × ($85 − $71) = $350 of decline. But be careful with that fact, because it cuts the wrong way if you lean on it. The exit would have been correct even if the stock had turned around at $86 and run to $125 without him. You judge an exit by whether it followed the plan, never by what the price did afterward. Judging by afterward is hindsight, and hindsight will talk you out of every stop you ever set — right up until it talks you into an Example 3.

The Lesson. This is what a loss is supposed to look like: small, boring, and finished. A −1R loss is not the plan failing. It *is* the plan. It is the rent you pay for the chance at +3R wins like Example 1. At −1R per trade, you could lose ten trades in a row and still have about 90% of your account. Losing trades only become dangerous when a trader refuses to take the small one — which is exactly the next example.

Example 3 — The Same Loser, Held Wrong

The Setup. Same stock. Same range breakout. Same entry at **$95**, same stop at **$85**, same **25 shares**, same $250 of planned risk as Example 2. This is not a different trade. It is the same trade, with one different decision on day four.

The Plan. The plan was identical — and then, on day four, with the stock sitting on the stop, the trader cancelled it. The reasoning sounded smart: "The company is solid. The thesis is still good. This is just a shakeout. Selling here would be stupid." Every trader who has ever held a loser too long has said some version of those exact sentences.

The Math. Planned loss at the stop: −$250 (−1R). What actually happened, below.

What Happened. The stock slipped through the high 80s, then the low 80s. A two-day bounce back toward $88 felt like proof the thesis was right — it was just a bounce inside a downtrend, and it faded. Over about five weeks the stock ground down through the 70s and the 60s. There was no single disaster day; there were just twenty-some small red days, each one easy to excuse. Finally, exhausted and down far more than ever intended, the trader sold at **$58**.

Loss per share: $95 − $58 = $37. Total loss: 25 × $37 = **−$925**. In R: $925 ÷ $250 = **−3.7R**. The account fell to $24,075 — a 3.7% drawdown from one trade that was designed to cost 1%.

Now count the full damage, because the $925 is only the first layer:

- **The extra loss:** $925 − $250 = **$675 beyond the plan** — that is 2.7 *additional* planned risks burned on one decision.
- **The recovery math:** from $24,750 (the Example 2 outcome), getting back to $25,000 needs a gain of about 1.01%. From $24,075, it needs about 3.84%. Losses get harder to recover from the deeper they go — one reason the loss-recovery table elsewhere in this Academy matters so much.
- **The winner it erased:** Example 1's clean, patient, three-week win made $738. This one lapse cost $925 — the entire winner, plus $187 more, gone.
- **The opportunity cost:** for five weeks, the trader's money, attention, and risk budget were tied up nursing a broken trade. Two later setups that matched the written plan came and went untaken, because the trader was already "in something" and watching it bleed. A trapped trader cannot take new trades.

The Lesson. The market does not know your thesis, and it does not grade on effort or conviction. A stop-loss is not a prediction that the stock will keep falling — it is a pre-commitment about how much one idea is allowed to cost you. The cheapest loss is always the first one. In Example 2 the trader paid $250 to find out the idea was wrong. In Example 3 the trader paid $925 to find out the exact same thing.

Example 4 — The Earnings Gap

The Setup. A big industrial manufacturer trades at **$100**. The trader enters a swing at $100 with a stop at **$92**. Risk per share: $100 − $92 = **$8**. Shares: $250 ÷ $8 = 31.25, rounded down to **31 shares**. Planned risk: 31 × $8 = **$248**. Cost: 31 × $100 = **$3,100**.

One fact sat on the calendar the whole time: the company reports **earnings** — its scheduled quarterly report card of profits and sales — in three days. Earnings dates are public, announced weeks ahead. There is nothing hidden about them.

The Plan. The trader saw the earnings date and made a choice: hold through the report at full size, because "the numbers will probably be fine." Understand precisely what was wrong with that choice. Holding through earnings is not automatically a sin. The sin was holding at a size that assumed the stop would protect the full $248 plan. A stop protects you while the market is open and trading. It cannot protect you overnight.

The Math. Planned loss if the stop fills normally: 31 × $8 = −$248 (−1R). Now the math of a **gap** — when a stock's first trade of the day happens far from yesterday's closing price, because news arrived while the market was closed: the stock closed at $100, the report disappointed, and the next morning's first trade was at **$88**. That is a **−12% gap** ($100 × 0.88 = $88).

What Happened. At the open, the price was $88 — already *below* the $92 stop. A stop-loss works like this: when price trades at or through your stop level, your order becomes a regular sell order at the best available price. It is a trigger, not a guaranteed price. Since the stock opened at $88 and never traded at $92 that morning, the trader's shares sold at about **$88**.

Actual loss per share: $100 − $88 = $12. Total: 31 × $12 = **−$372**. In R: $372 ÷ $248 = **−1.5R** — half again the planned risk, $124 more than the plan allowed, lost before the trader's first cup of coffee.

The Lesson. There was a framework available *before* the report, and it has three honest options. Any of them is defensible. "Full size and hope" is not one of them:

- **Exit before the report.** Sell the day before earnings, watch the reaction with no money at risk, and re-enter afterward if the setup still qualifies. You give up the chance of a happy gap up. You also give up nights like this one.
- **Shrink the size to fit the gap, not the stop.** Decide the worst realistic gap — say 15% on a $100 stock, or $15 per share — and size for *that*: $250 ÷ $15 = 16.6, rounded down to **16 shares**. Then this exact −12% gap costs 16 × $12 = **$192**, safely inside the $250 budget. The stop still sits at $92 for ordinary trading days; the size is what protects you from the extraordinary one.
- **Hold full size with open eyes.** Accept — in writing, in the journal, before the report — that the real risk on this trade is roughly 1.5R to 2R, not 1R, and that you are knowingly treating the earnings announcement as a coin flip you can afford. If you cannot write that sentence honestly, you do not actually accept it, and one of the first two options is yours.

The deepest point: a gap loss on a random overnight news story is bad luck. A gap loss through a *scheduled* earnings report is a planning failure. The date was on the calendar the day the trade was

placed.

And yes — gaps cut both ways. If the report had thrilled everyone, the stock might have opened at $112 instead, a +12% gap, and the same 31 shares would have gained 31 × $12 = +$372 overnight. That is exactly what makes holding through earnings so tempting, and it changes nothing about the planning. A coin flip that sometimes pays you is still a coin flip. The question is never "could this gap go my way?" — it is "have I sized this trade so the bad flip fits my risk budget?" If the answer is no, the good flip is just bait. Two habits prevent nearly all of this: check the earnings date before you enter any single-stock swing (it takes thirty seconds), and if a report lands inside your holding window, make the exit-or-shrink decision *that day*, in writing — not the night of the report, with the headline already scaring you.

The Scoreboard

Example	Planned Risk	Actual Result	In R
1 — The Clean Winner	$246	+$738	+3.0R
2 — The Loser Cut Right	$250	−$250	−1.0R
3 — The Same Loser, Held Wrong	$250	−$925	−3.7R
4 — The Earnings Gap	$248	−$372	−1.5R

What These Examples Teach

- **Position size comes from the stop distance, never from confidence.** Every example divided the same $250 budget by the distance to the stop. Example 1 risked $246 on 41 shares; Example 2 risked $250 on 25. The share count changed. The risk did not.
- **Plan in R, judge in R.** R strips away the dollar size of any one trade and shows you the truth: +3R, −1R, −3.7R, −1.5R. A trader whose losers average −1R and whose winners average +3R can be wrong more often than right and still grow.
- **A −1R loss is the system working.** Example 2's trader lost money and made zero mistakes. Losses are a cost of doing business — but only when they stay the size you pre-decided.
- **Discipline, not the market, sets your worst loss.** Examples 2 and 3 were the *same trade*. The market offered both traders the identical exit at $85. One took it and lost $250; the other argued, hoped, and lost $925. The $675 difference was a decision.
- **One undisciplined loss can erase a clean win.** Example 3's −$925 swallowed Example 1's entire +$738 winner and $187 more. Protecting winners means capping losers — they are the same job.
- **A stop is a trigger, not a guaranteed price.** In an open, orderly market it fills near your level (Example 2). Across an overnight gap it fills at the open (Example 4). Never build a plan that assumes a stop can do what it cannot.
- **Earnings dates are landmines with a published schedule.** Check the calendar before entering any single-stock swing. Before a report, choose on purpose: exit, shrink to gap-size, or knowingly accept 1.5–2R of real risk.
- **The space between is where trading is actually decided.** Winners are rarely heroic and good losers are always boring. Almost everything that separates Example 2 from Example 3 happened in the quiet minutes when a plan met an emotion.

> **RULE**
> Decide the exit before you enter, size from the stop, and let no single trade — winner, loser, or gap — cost more than the R you wrote down.



EX-06

WORKED EXAMPLES
DISASTERS & SAVES

Three blowups — and the same three trades with the rules applied.

Alpha Academy Worked Examples · Team Alpha Trading

Worked Examples — Risk Disasters and the Same Trades With Rules

These are **worked educational examples with realistic prices, built to teach the math and the decision-making — they are not records of anyone's actual trades.** Every trader in this document is made up. Every dollar figure, however, is real arithmetic, and the mistakes are the most common ones real beginners make.

Each example runs twice. First you will watch a trade turn into a disaster — not because the trader picked the wrong stock or the wrong direction, but because of how much they risked and what they did after the first loss. Then we rewind and run the **exact same trade** with the Academy risk rules applied: risk about 1% per trade, size the position from the stop, never add to a loser, and stop for the day at a preset limit. Same market. Same idea. Same bad luck. Watch what changes — and what does not. The rules never turn a losing idea into a winning one. They only decide, in advance, what being wrong is allowed to cost.

> **NOTE**
> This document is education only, not financial advice. Most beginners lose money when they start trading. The goal of risk rules is not to make you win — it is to keep you in the game long enough to learn.

As you read, keep one question in mind for each pair: **what was different before the trade started?** You will find it is never the prediction. Both versions of each trader read the same charts, liked the same stocks, and expected the same move. The difference is always decided the night before or in the calm minute before entry — a risk percentage, a stop with a dollar figure attached, a daily limit written down. Disaster traders make those decisions in the middle of the loss, when fear and embarrassment are loudest. That timing difference, more than any strategy, is what separates accounts that survive their first year from accounts that do not.

Example 1 — The 10% Risk Trade

The Setup. A trader has a $10,000 account. He has been watching a stock trading at $50 and is convinced it is about to run. He is not just confident — he is *sure*. So sure that he decides this trade deserves a big swing: he will risk $1,000 on it, which is 10% of his whole account, on this one idea.

The Plan. His plan has a good piece and a missing piece. The good piece: he picks a **stop loss** — an automatic exit order that sells if the price falls to a set level — at $40, the point where he agrees the idea is wrong. The missing piece: he has no rule at all for what happens *after* a loss. His position size comes from his confidence, not from a rule. From $50 down to $40 is $10 of risk per share, so $1,000 ÷ $10 = **100 shares**. That is a $5,000 position — half his entire account riding on one stock.

The Math. If the stop is hit: 100 shares × $10 lost per share = **−$1,000**. His account falls from $10,000 to $9,000, a 10% drop. Here is the part nobody warns beginners about: getting back is *not* symmetric. To climb from $9,000 back to $10,000 he must gain $1,000 on a $9,000 base — that is **+11.1%**, not 10%. Losses and gains do not cancel out evenly:

Account drop	Gain needed just to get even
10%	+11.1%

Account drop	Gain needed just to get even
25%	+33.3%
50%	+100%
75%	+300%
90%	+900%

What Happened. The stock slides to $40 over two days and his stop fills. He is down $1,000 and furious — at the market, at the stock, at himself. Now the second mistake arrives: **revenge trading**, which means trading again immediately, not because a good setup appeared, but to win the loss back. An hour later he jumps into a $25 stock and risks **$1,500** this time — bigger, because he "needs to make it back." Stop at $20, $5 of risk per share, so 300 shares: a $7,500 position. It fails too. Loss: 300 × $5 = **−$1,500**. Account: $7,500. He is now down 25% from $10,000, and the recovery math has turned hostile — he needs +33.3% just to break even. The next morning, still chasing, he risks $1,500 a third time. It loses. Account: **$6,000**. Three trades in three days turned $10,000 into $6,000 — a 40% hole that now requires a **+66.7%** gain to escape.

The Lesson. Trade one was not the disaster. Losing $1,000 hurt, but it was survivable. The disaster was built in two steps: risking 10% made the recovery math steep (+11.1% needed after one loss), and revenge sizing — betting *more* after each loss — dug the hole from −10% to −25% to −40%. Notice the pattern in the table: the deeper the hole, the more the required recovery explodes. A trader who needs +66.7% starts taking desperate swings, which is how a bad week becomes a blown account.

The Same Trade, With the Rules

The Setup. Same trader, same $10,000, same stock at $50, same stop at $40, same conviction.

The Plan. One rule replaces the confidence sizing: risk **1% of the account per trade** — $100. Position size is *calculated from the stop*, never from feelings: $100 ÷ $10 risk per share = **10 shares**, a $500 position.

The Math. Maximum damage if the stop is hit: 10 shares × $10 = **−$100**. After one loss he needs about +1% to recover — a rounding error compared to +11.1%.

What Happened. The stock does exactly what it did before: down to $40, stop fills, −$100, account $9,900. He feels the same sting — rules do not remove feelings — but his plan has already decided what happens next, so there is no revenge trade, only the next planned trade at 1% of the *new* balance. The same two bad ideas follow, because luck did not change: 1% of $9,900 = $99 lost, account $9,801; then 1% of $9,801 = $98 lost, account **$9,703**. Three losses in a row, the identical losing streak as the disaster version. Total damage: **$297, about −3%**, needing roughly +3.1% to recover — an ordinary good week, not a miracle.

The Lesson. Nobody in this version picked better trades. The ideas were the same three losers. The only difference was size: $297 lost instead of $4,000. That is the entire job of the 1% rule — it makes a losing streak boring, and boring is what staying alive looks like.

Example 2 — Averaging Down

The Setup. A trader with a $20,000 account buys a well-known company at $50. He likes the business and plans to hold it as it climbs. He buys 100 shares for **$5,000** and calls it a "starter position."

The Plan. His plan for trouble is the trap: if the price falls, he will **buy more**. This is called **averaging down** — adding to a losing position to lower your average purchase price. It *feels* brilliant: buy at $50, buy more at $44, and now your average is lower, so the stock needs a smaller bounce for you to break even. What he does not have is a stop. There is no price at which he admits he is wrong. His only plan for being wrong is to bet more on being right.

The Math. The stock drops to $44. He adds 100 shares for $4,400. Total spent: $5,000 + $4,400 = $9,400 for 200 shares, an average price of **$47.00** per share. "See?" he says. "It only has to get back to $47." The stock drops to $38. He adds 100 more shares for $3,800. Total spent: $9,400 + $3,800 = **$13,200** for 300 shares — average price **$44.00**. Two-thirds of his entire account is now inside one falling stock, and every "discount" made the position bigger.

What Happened. The company reports bad news and the stock settles at **$30**, where it sits for months. His 300 shares are worth 300 × $30 = $9,000. Against the $13,200 he put in, that is a loss of **−$4,200**. Worse, look at the exit he now needs: from $30, the stock must rise **+46.7%** just to reach his $44 average price and break even. The bouncing-to-even story that sold him each add — "it only needs to get back to $47" — is gone. His account stands at $20,000 − $4,200 = **$15,800**, and nearly all the damage came *after* the original trade idea had already failed at $44 and again at $38.

The Lesson. Averaging down does lower your average price. That part is real. What it hides is that it multiplies your size in a trade the market keeps telling you is wrong. Each add feels like a discount; in dollars, it is a bigger and bigger bet that your first decision was right. The original $5,000 idea was allowed to grow into a $13,200 commitment and a $4,200 loss — with no point, ever, where the plan said "stop."

The Same Trade, With the Rules

The Setup. Same account, same company, same $50 entry, same confidence in the business.

The Plan. Before buying, he sets the exit that proves the idea wrong: a stop at **$46**. Then he sizes by the stop. Risk budget: 1% of $20,000 = **$200**. Risk per share: $50 − $46 = $4. Position: $200 ÷ $4 = **50 shares**, a $2,500 position. And one written rule on top: **if the stop hits, the trade is over.** No adds to a loser, ever.

The Math. The worst case is known before the trade is placed: 50 shares × $4 = **−$200 maximum**. Compare the two structures before anything happens: the averaging-down plan had *no* maximum — the loss was whatever the stock decided. This plan's worst case is fixed at $200.

What Happened. The stock falls, touches $46, and the stop fills: 50 × $4 = **−$200**. Account: $19,800, down 1%. The stock keeps falling to $38, then $30 — he watches it happen from the sideline, with his money out. His reaction surprises him: mostly, relief. The same collapse that cost the first version $4,200 cost him $200, exactly **21 times smaller**, and his $19,800 is untouched and available for the next setup that is actually working.

The Lesson. The rules version "missed every discount" on the way down — and that is precisely what saved the account. A stop is not a prediction that the stock will keep falling. It is the pre-agreed price of finding out you were wrong, paid small. Averaging down refuses to pay that small price, so the market eventually collects a much larger one.

Example 3 — The Futures Spiral

The Setup. A trader opens a $10,000 futures account and trades the **ES** — the futures contract that tracks the S&P 500. From Level 1, the facts that govern everything below: one ES contract gains or loses **$50 for every 1 point** the index moves, and at an index level of 6,000, a single contract controls 6,000 × $50 = **$300,000** worth of the index. He trades **3 contracts** — $900,000 of market exposure balanced on a $10,000 account — because the broker's day margin (the deposit required to open a position during the day) is only a few thousand dollars. Small deposit, enormous position.

The Plan. There is barely one. He is bullish — he believes the index will rise today — so he buys 3 ES at 6,000. He sets **no stop**, because "stops get hunted," and **no daily loss limit**, because "the market always comes back." The real plan, translated honestly, is: hold until it turns, no matter what it costs in between.

The Math. With 3 contracts, every single point against him costs $50 × 3 = **$150**. Ten points is $1,500. Twenty points is $3,000. The index moves 10–30 points on an ordinary day without any news at all — meaning his "hold and wait" plan can bleed thousands on a completely normal Tuesday.

What Happened. Today is a trend day *down*. By late morning the index is 15 points under his entry: 15 × $150 = **−$2,250**, gone. He holds — it has to bounce. It does not bounce. The afternoon slides another 15 points, and at −30 points his running loss is 30 × $150 = **−$4,500**; his account equity is down to $5,500, no longer enough to cover the margin required to hold 3 contracts. So the broker ends the trade for him: a **margin liquidation**, where the broker force-closes your position, at whatever price is available, because your account fell below the required deposit. He does not choose the exit. He does not even get asked. Final score for one day: **−$4,500, account $5,500, down 45%.** To recover, he now needs a gain of about **+82%** — with a smaller account and shaken confidence.

The Lesson. The leverage did more than speed up the loss. It removed his right to wait. A stock trader with no stop can at least choose to hold for months; a leveraged futures trader who runs out of margin gets closed out at the worst moment, automatically. And notice what actually hurt him: not the direction — being wrong long on a down day is ordinary — but 3 contracts, no stop, and no daily limit, all chosen before the open.

The Same Trade, With the Rules

The Setup. Same trader, same $10,000, same bullish view, same morning. One change of instrument: he trades the **MES**, the micro version of the same contract, worth **$5 per point** instead of $50 — one-tenth the size, built exactly for accounts like his.

The Plan. Written down before the open: **1 MES contract**. Stop placed 20 points below entry, so the risk is 20 × $5 = **$100 = 1% of the account**. And a daily loss limit of 2% — $200. Two stopped trades and he is done for the day, whatever his feelings say.

The Math. Worst case for the whole day is known in advance: **−$200**. The disaster version's worst case was unknown — it turned out to be $4,500, and only the broker's liquidation stopped it there. On 1 MES, even the full 30-point slide with no stop at all would have cost 30 × $5 = $150. His entire structure cannot produce a four-figure loss day.

What Happened. The trend day runs straight over his position, same as before. His stop fills at −20 points: **−$100**, account $9,900. Later, his setup appears again and the plan allows one re-entry. It fails the same way: another **−$100**. Daily limit reached — $200 lost — so he closes the platform and walks away while the index keeps falling without him. Final score: **−$200, account $9,800, down 2%**, needing about +2% to recover. No liquidation, no panic, no hole.

The Lesson. Same market, same wrong opinion, same day. One version lost $4,500 and got force-closed; the other lost $200 and chose its own exit twice. The entire difference was decided before the open: contract size small enough for the account, a stop with a dollar figure attached, and a daily limit that feelings are not allowed to renegotiate mid-session.

What These Examples Teach

- **Losses and gains are not symmetric.** Down 10% needs +11.1% to recover; down 25% needs +33.3%; down 50% needs +100%. Small losses are cheap to undo. Big losses demand heroic gains — and heroic gains require exactly the desperate risk-taking that dug the hole.
- **Position size is decided by the stop, not by confidence.** In every disaster above, the trader sized from how *sure* he felt. In every save, size was arithmetic: risk budget ÷ distance to the stop. Confidence is a feeling; the stop is a fact.
- **Revenge trading converts a loss into a hole.** The first $1,000 loss in Example 1 was survivable. Trading bigger to "make it back" turned −10% into −40% in three days. After a loss, the plan — not the emotion — decides the next trade's size, and the plan never says "bigger."
- **Averaging down grows your position exactly when the trade is proving you wrong.** It lowers your average price while multiplying your total dollars at risk. Without a pre-set exit, a $5,000 idea became a $13,200 commitment and a $4,200 loss.
- **Leverage removes your right to wait.** Futures margin means the broker can end your trade at the worst price when your account runs low. Small contracts (like the MES at $5 per point) exist so a beginner's mistakes cost tuition-sized money instead of account-sized money.
- **A daily loss limit is a circuit breaker, not a lack of ambition.** In every save, the day ended early and small — −1% to −2% — leaving the account, and the trader, able to come back tomorrow. There is always another trading day, but only for accounts that survive this one.
- **Rules do not prevent losses.** Nobody in the "with rules" versions made a cent — every idea lost. That is the honest promise of risk management: not that you will win, but that being wrong costs a small, pre-decided amount, over and over, instead of one account-ending amount, once.

> **RULE**
> Decide the size of every loss while you are calm — because in the middle of the trade, you will not be.



AA3-00

LEVEL 3
INDEX

The track guide — three arenas, mastered one at a time.

Alpha Academy Level 3 · Team Alpha Trading

Alpha Academy Level 3 — Index & Track Guide

Welcome to **Level 3** — the specialist tier of Alpha Academy. Levels 1 and 2 taught you the whole market and how it works underneath. Level 3 is different: instead of going wider, you go **deep in one arena** and master it — its structures, its clock, its risks, and the daily routine of the traders who work it.

There are three tracks. They share one rule: **Level 3 teaches arenas, not systems.** Alpha Academy stays strategy-neutral on purpose — these tracks master the arena (0DTE options, futures, or swing trading) and the process around it, and they deliberately leave the entry method to you. Pair any track with the **Worked Examples Library**, where the trades are shown with every number worked.

> **NOTE**
> Level 3 arenas are where beginners lose money fastest — 0DTE and leveraged futures especially. Every track assumes you paper trade first, size small second, and treat the risk modules as the real curriculum.

Track A — 0DTE Mastery (AA3-01 → AA3-05)

Code	Document	What You Will Learn
AA3-01	The 0DTE Arena	Why same-day expiry is a different sport — theta cliff, gamma, SPX vs SPY
AA3-02	0DTE Structures	Buying premium, debit spreads, credit spreads, iron condors — full math
AA3-03	0DTE Timing — The Session Map	The day's zones, catalyst hours, and the sit-out rules
AA3-04	0DTE Risk Commandments	Daily loss caps, trade caps, hard exit times — the doctrine
AA3-05	The 0DTE Playbook	One complete trading day, prep to journal

Track B — Futures Day Trading (AA3-06 → AA3-10)

Code	Document	What You Will Learn
AA3-06	The Futures Day Trader's Setup	Day margin, real leverage math, picking ES/NQ/GC/CL, starting on micros
AA3-07	Futures: Trading the Open	Overnight inventory, the opening range, open types
AA3-08	Futures Playbook — Trend vs Range	Day-type recognition, VWAP, and the two playbooks
AA3-09	Futures Risk & the Daily Stop	Notional danger, the hard daily stop, the one-contract rule
AA3-10	The Futures Day Trader's Routine	The full professional day, hour by hour

Track C — Swing & Position Trading (AA3-11 → AA3-15)

Code	Document	What You Will Learn
AA3-11	The Swing Framework	Timeframe alignment, entries, and sizing for overnight risk
AA3-12	Position Trading & Trend Following	Pyramiding into winners, trailing exits, the expectancy math
AA3-13	Swinging With Options	LEAPS, verticals, covered calls — structures matched to weeks
AA3-14	Managing a Book of Swings	Total open risk, the correlation trap, the earnings audit
AA3-15	The Weekly Swing Routine	The weekend session and the low-maintenance trading week

How to Take Level 3

- **One track at a time.** Depth is the entire point. Finish a track — including its risk module and a month of paper trading — before opening another.
- **Read the risk module twice.** In each track it's the fourth or fifth document, and it's the one that decides whether the other four make you money or cost you money.
- **Live inside the Worked Examples.** After each module, find its matching examples (0DTE days in EX-03, futures tick math in EX-04, swing R-multiples in EX-05, and the disasters in EX-06) and work the numbers yourself before reading the answers.
- **Then practice with the Practice Pack** — the 30-Trade Paper Challenge, run on your track's arena, is the Level 3 graduation exam.

> **RULE**
> An arena mastered at small size beats three arenas dabbled in at full size. Pick your track like it matters — because the market will charge you like it does.



AA3-01

THE ODTE ARENA

Same-day expiry, no mercy — theta cliffs, gamma, and who should stay out.

Alpha Academy Level 3 · Team Alpha Trading

The ODTE Arena — Same-Day Expiry, No Mercy

Welcome to the fastest, cheapest-looking, and most dangerous corner of the options market.

0DTE stands for "zero days to expiration." A 0DTE option is an option contract that **expires today** — the same trading day you buy or sell it. By the closing bell, it is finished. It either pays you based on where the price ended up, or it expires worthless and every cent of its remaining value is gone.

This module opens Alpha Academy's Level 3 track on same-day trading. It assumes you have finished Level 1 and Level 2, so you already know what calls and puts are, what the **strike price** is (the price level written into the contract), what **premium** is (the price you pay for the contract), and the fact that one standard contract controls 100 shares — so a premium of $2.00 means $200 of real money per contract.

What this module does is show you why the *last day* of an option's life plays by completely different rules than every day before it — and why this arena deserves respect before it deserves a single dollar.

> **RISK**
> A bought 0DTE option can lose 100% of its value in minutes — not days, not hours. Minutes. Everything in this module is education, not financial advice, and this is the one arena where the education matters most before any real money is involved.

What ODTE Actually Means

An **expiration date** is the day an option contract dies. For most of the history of options, contracts expired on a handful of set dates — monthly, then weekly. That changed. The major index products now list **new expirations every single trading day**. Monday has an expiration. Tuesday has one. Wednesday, Thursday, Friday — every day, a fresh set of options is born in the morning and dead by the close.

That is what created the 0DTE arena. On any given morning, a trader can buy a contract that gives them exposure to today's move in the market, and that contract's entire life — birth, battle, and death — fits inside one session.

Why do people love it? Three reasons, all of them real:

- **It is cheap per contract.** Because the contract only lives for a few hours, its premium is small in dollars. A contract that might cost $800 with three weeks of life left might cost $150 today.
- **It moves violently.** A small move in the underlying price can double or triple a 0DTE contract — or wipe it out.
- **It ends today.** No overnight risk. No waking up to a gap against you. Win or lose, the trade is settled by the close.

Why do professionals fear it? Because every one of those attractions has a blade on the other side. Cheap means the value is mostly hope rather than time. Violent movement cuts in both directions. And "ends today" means no tomorrow for a wrong trade to come back.

> **NOTE**
> "Cheap" is the most misleading word in this arena. A $150 contract that expires worthless four days a week is not cheap. It is a recurring $150 lesson. Price per contract is not the same thing as value.

Why the Final Day Is a Different Sport

Two forces rule an option's final day, and you met both in earlier levels: **theta** and **gamma**. On the last day, both of them stop behaving like background forces and become the entire game.

The theta cliff

Theta is time decay — the amount of value an option loses each day simply because time passes. Early in an option's life, decay is a slow leak. In the final day, it is a cliff.

Here is why. An option's premium has two parts: **intrinsic value** (what the contract is worth if exercised right now — for a call, how far the price sits above the strike) and **time value** (the extra amount buyers pay for the *chance* the price moves further before expiration). On the morning of expiration day, a 0DTE contract may still hold real time value. By the close, time value is exactly zero — there is no time left. Every cent of time value must evaporate inside one session.

Watch a typical at-the-money contract across its final day — these are illustrative numbers, not a quote, but the *shape* is what matters:

Time of day	Premium if the price barely moves
9:30 a.m. (open)	$4.50
12:00 p.m.	$2.60

Time of day	Premium if the price barely moves
2:00 p.m.	$1.30
3:30 p.m.	$0.40
4:00 p.m. (close)	$0.00 if it finishes out of the money

Read that table again. The underlying price did almost nothing wrong in this illustration — it simply failed to move. And the contract still lost over 40% of its value by lunch and 100% by the close. Decay does not spread evenly across the day. It accelerates: slow in the morning, savage in the final two hours. Standing still is losing. Moving *slowly in your direction* can still be losing, because the clock is taking value out faster than the price is putting it in.

The gamma explosion

Gamma measures how fast an option's sensitivity to price changes — how violently the contract's value responds when the underlying moves. All week, gamma builds. On expiration day, at-the-money gamma reaches its peak: the contract becomes a hair trigger.

In plain English: near the close, a contract can be worth $0.20 with the price one point below its strike, and worth $1.20 ten minutes later if the price pushes one point above the strike — or worth $0.00 if the price slips the other way. The same $1 move in the underlying that would have nudged a three-week option by a modest amount can double a 0DTE contract or zero it.

This is the "gamma explosion," and it is why the last hour of a 0DTE trade feels less like investing and more like standing next to a firework with a short fuse. Big, fast swings in your profit-and-loss are not a sign you are doing it right or wrong. They are the physics of the instrument.

> **RULE**
> On expiration day, the question is never just "which direction?" It is "which direction, how far, and *how soon*?" A 0DTE buyer who is right about direction but late by one hour is simply wrong.

SPX vs. SPY — Same Index, Different Animal

Most 0DTE trading happens on the S&P 500, and beginners constantly confuse the two main ways to trade it. They track the same index, but the contracts are built differently, and the differences can cost real money.

Feature	SPX options	SPY options
What it tracks	The S&P 500 index itself	An ETF (a fund) that tracks the S&P 500
Size	One point = $100 per contract	One contract = 100 shares of the ETF
Settlement	Cash — money moves, nothing else	Shares — contracts can turn into stock
Style	European — can only be exercised at expiration	American — can be exercised any time

Feature	SPX options	SPY options
Assignment risk	None during the day	Real — you can be assigned shares
Expiration timing	Settles based on the closing index value	Trades and can be exercised into the close

Three of those rows deserve plain-English emphasis:

Cash-settled means an SPX contract never turns into anything. If it finishes in the money, cash equal to its value lands in your account. If it finishes out of the money, it vanishes. Clean in, clean out.

Share settlement means a SPY contract that finishes in the money can turn into 100 shares of stock per contract — bought or sold at the strike price. If you sold a SPY put and it is in the money at the close, you may wake up owning 100 shares for every contract, whether you wanted them or not. That is **assignment**: being required to complete the trade you sold. It is not a penalty or a malfunction — it is the contract doing exactly what it says.

European vs. American style matters most for sellers. SPX options are European-style, so no one can exercise early — a seller cannot be assigned before expiration, period. SPY options are American-style, so early exercise is possible at any time, and short contracts carry assignment risk all day long.

> **RISK**
> Never sell a SPY option you could not afford to be assigned on. One contract means 100 shares. If being assigned would blow up your account, the position was too big before it was unlucky.

Neither product is "better." SPX is the cleaner instrument for same-day index trading and is the arena's standard. SPY contracts are smaller in dollar terms, which makes them tempting for small accounts — but the assignment mechanics are a real complication that SPX simply does not have.

Who Should NOT Trade 0DTE

This section is short because the answer is not subtle.

Brand-new traders should not trade 0DTE. If you are still learning what a strike price is, an instrument that can lose everything in fifteen minutes teaches only one lesson: pain. Speed is not a teaching tool. Paper trade it if you are curious — and read the results honestly.

Anyone who cannot watch the screen should not trade 0DTE. A position that can be up 80% at noon and worthless at 2:00 p.m. cannot be set and forgotten. If your job, your classes, or your life take your eyes away for hours at a time, this arena is structurally incompatible with your day.

Anyone sizing it like a normal trade should not trade 0DTE. With a stock, a bad day might cost you 3%. With a bought 0DTE contract, a bad *hour* can cost you 100% of the position. A trader who risks 2% of their account on stock trades and then puts the same dollars into 0DTE premium has not kept their risk the same — they have multiplied it, because the possible loss on the contract is the whole amount.

Add three more honest exclusions:

- Anyone trading on tilt — trying to win back a loss quickly. 0DTE's speed makes revenge trading almost irresistible and almost always expensive.

- Anyone who cannot state, before entering, exactly where they will get out. There is no time mid-trade to invent a plan.
- Anyone spending money they need. That rule applies everywhere in this school; here it is absolute.

The Honest Math — Base Rates Nobody Advertises

Time for the numbers this arena's marketing leaves out.

Most day traders lose money. That is not an opinion; study after study of real brokerage accounts finds that the large majority of people who day trade finish the year behind, and only a small minority profit consistently year after year.

Most same-day premium *buyers* lose too — and the structure of the market explains why. Think about what a 0DTE buyer needs: not just the right direction, but a move that is **big enough and fast enough** to outrun the theta cliff. The seller on the other side of that trade needs only one thing: for the day to be *less dramatic* than the premium implied. Most days, on most underlyings, are less dramatic than feared. That is the **seller's edge** — not a guarantee, a statistical tilt. Sellers collect small premiums repeatedly, and in exchange they accept the rare day when a huge move hands them a loss many times the size of those premiums.

The buyer's math is the mirror image. Buyers lose small amounts frequently and win big occasionally. Run the buyer's arithmetic on a realistic example:

At 10:00 a.m., SPY trades at $600. You buy today's $601 call for $1.80. That is $180 per contract. Your **breakeven at expiration is the strike plus the premium: $601 + $1.80 = $602.80**. SPY must finish the day above $602.80 — a move of nearly half a percent in under six hours — just for you to make your first dollar.

- If SPY finishes at $601.50, your call is worth $0.50. You get $50 back: a $130 loss on a day you were *right* about direction.
- If SPY finishes at $601 or below, the call is worth zero: the full $180 is gone.
- If SPY finishes at $605, the call is worth $4.00: a $220 profit. It happens — just not on most days.

Notice what that example is really telling you. The buyer's enemy is not only the market. It is the calendar and the clock. And none of this means buying is foolish and selling is smart: sellers face the opposite profile, where the rare violent day can erase weeks of collected premium in an afternoon. Both sides are hard. The arena charges everyone rent; it just collects it in different currencies.

> **RISK**
> Anyone who shows you only winning 0DTE trades is showing you a highlight reel, not a base rate. The honest starting assumption is that the crowd loses here — your plan has to explain why you would be the exception.

What Edge a ODTE Trader Actually Needs

If most participants lose, what separates the minority who survive this arena? Not a secret signal. Three unglamorous things.

Timing. In a contract with hours of life, *when* you trade matters as much as *what* you trade. The same idea at 9:45 a.m. and at 2:30 p.m. is two different trades, because the decay curve and the remaining room to move are completely different. Survivors think in terms of the clock: how much time is left for the move

to happen, and what does the premium cost per hour of that time?

Discipline. The speed of 0DTE P&L swings is engineered to hijack your emotions — a position doubling in twenty minutes breeds greed, and one halving breeds desperation. Survivors pre-commit: entry conditions decided in advance, an exit decided in advance, a daily loss limit decided in advance. When the plan says out, they are out, at a price they hate, because the plan was written by the calm version of them.

Defined risk. The professionals in this arena rarely take unlimited-risk positions. They use structures where the maximum loss is known to the cent before the trade opens — most commonly **spreads** (buying one option and selling another at a different strike in the same trade):

- A **debit spread** — for example, buy the $600 call for $2.20 and sell the $605 call for $0.70 — costs a net debit of $1.50, or $150. That $150 is the **maximum possible loss**, no matter what happens. The maximum gain is the $5 width minus the $1.50 debit: $3.50, or $350.
- A **credit spread** — for example, sell the $595 put for $1.60 and buy the $590 put for $0.60 — collects a net credit of $1.00, or $100. That $100 is the maximum gain. The maximum loss is the $5 width minus the $1.00 credit: $4.00, or **$400 per spread**.

Defined risk does not make a trade good. It makes a trade *survivable*. In an arena where a naked position can be destroyed by one spike, survivability is the entire foundation. The next modules in this track take these structures apart piece by piece — sizing them, timing them, and exiting them.

> **NOTE**
> This module — like the whole Academy — teaches arenas, structures, and risk. It does not teach or endorse any single named strategy or system. Your method supplies the entries and signals; this track gives you the map of the ground you'll use it on.

Common Mistakes at This Level

- **Treating premium like price.** "It only costs $150" is not an analysis. A cheap contract that usually expires worthless is expensive in the only way that matters — over a hundred trades.
- **Sizing 0DTE like stock.** Putting normal position dollars into contracts whose realistic bad outcome is −100%, not −3%.
- **Holding a loser "for the comeback."** A 0DTE contract down 70% has almost no time left to come back with. Hope is not a recovery plan when the contract dies at 4:00 p.m.
- **Ignoring the clock.** Entering at 3:15 p.m. with a thesis that needs two hours, then being surprised by the theta cliff.
- **Selling naked SPY options without understanding assignment.** Waking up owning hundreds of shares is a mechanics lesson nobody should pay full tuition for.
- **Averaging down.** Buying more of a dying contract because it is "cheaper now" usually means paying twice for the same zero.
- **Trading every day because expirations exist every day.** Daily expirations are an invitation, not an obligation.

Chapter Summary

- 0DTE options expire the same day they are traded; major indexes now offer expirations every trading day.

- The final day is ruled by two forces: the **theta cliff** (time value must reach zero by the close, and decay accelerates brutally late in the day) and the **gamma explosion** (at-the-money contracts become hair triggers near expiration).
- Being right on direction is not enough for a buyer — the move must be big enough and fast enough to beat the decay, and the breakeven is strike plus premium.
- SPX options are cash-settled and European-style, with no assignment risk. SPY options settle in shares and are American-style, so assignment is real.
- New traders, anyone who cannot watch the screen, and anyone sizing like a normal trade should not be in this arena.
- The base rates are harsh: most day traders lose, and most same-day premium buyers lose. Sellers hold a statistical tilt — most days are quieter than the premium feared — paid for with rare, severe losses.
- What actually separates survivors: timing that respects the clock, discipline that is written down before the trade, and defined-risk structures whose maximum loss is known in advance.

Check Yourself

1. What does 0DTE mean, and when does a 0DTE contract stop existing?
2. In the decay illustration, the underlying price barely moved — yet the contract still lost all its value by the close. What force did that, and why does it get stronger late in the day?
3. You buy a call with a $601 strike for $1.80. What is your breakeven price at expiration, and what is the contract worth if the underlying finishes at exactly $601?
4. Name two structural differences between SPX and SPY options that matter for a same-day trader.
5. A credit spread collects $1.00 of credit on a $5-wide spread. What are the maximum gain and maximum loss per spread, in dollars?

Answers: 1) Zero days to expiration — the option expires the same trading day it is traded; it stops existing at that day's close, settling for cash value if in the money or expiring worthless if not. 2) Theta — time decay. An expiring contract's time value must reach zero by the close, and decay accelerates as expiration approaches, so the final hours destroy value fastest. 3) Breakeven is $601 + $1.80 = $602.80. At exactly $601 the call finishes at the money with zero intrinsic value, so it is worth $0 and the full $180 premium is lost. 4) Any two of: SPX is cash-settled while SPY settles in shares; SPX is European-style (no early exercise, no assignment) while SPY is American-style (early exercise and real assignment risk); SPX is sized at $100 per index point while a SPY contract equals 100 shares of the ETF. 5) Maximum gain is the credit kept: $1.00 × 100 = $100. Maximum loss is the width minus the credit: ($5.00 − $1.00) × 100 = $400 per spread.

> **RISK**
> In the 0DTE arena, the market does not need to beat you — the clock will do it for free. Until timing, discipline, and defined risk are habits, the correct size for a 0DTE trade is zero.



AA3-02

ODTE
STRUCTURES

Buying premium, debit spreads, credit spreads, iron condors — every dollar worked.

Alpha Academy Level 3 · Team Alpha Trading

ODTE Structures — Buying, Spreads, and Defined Risk

You finished the Academy's options modules. You know what a call is, what a put is, how the **greeks** (the measurements that describe how an option's price behaves — delta for direction, theta for time decay, gamma for how fast delta changes) work, and how a spread caps risk. This module takes all of that into the fastest arena in the market: **0DTE options** — options that expire **today**, the same trading day you buy or sell them. "0DTE" is pronounced "zero-D-T-E" and stands for **zero days to expiration**.

Here is the honest warning, up front: 0DTE is where beginners lose money fastest. An option that expires in six hours can lose every cent you paid for it in minutes, and a badly built 0DTE position can lose far more than you paid. Most people who buy 0DTE premium lose money over time. That is not a reason to fear this module — it is the reason this module exists. By the end, you will know the four honest ways to build a 0DTE position, the exact maximum you can lose on each one **before you enter**, and the one rule that keeps a bad afternoon from ending an account.

> **NOTE**
> Two index products dominate 0DTE, and they settle differently. **SPX** options (on the S&P 500 index itself) are **cash-settled** and **European-style**: at expiration they turn into cash based on the index level, and they cannot be exercised early, so there is no early assignment risk. **SPY** options (on the popular S&P 500 fund) are **American-style** and settle in shares: they can be exercised early, and if you sell them you face real **assignment** risk — being forced to buy or sell 100 shares per contract. Everything in this module uses SPX-style cash-settled math unless stated. Education only — this is not financial advice.

Why 0DTE Is a Different Animal

An option's price has two parts: **intrinsic value** (what it would be worth if it expired right now) and **time value** (the extra you pay because the stock still has time to move). On a normal option with weeks left, time value melts slowly. On a 0DTE option, *all* of the time value must melt to zero **today**. That creates two forces you will feel every minute:

- **Theta (time decay) accelerates violently.** An option worth $2.00 at 10:00 a.m. can be worth $0.40 at 2:00 p.m. even if the index barely moved. The clock is not neutral — it is eating the position.
- **Gamma (how fast delta changes) explodes near the strike.** Late in the day, a 2-point index move can swing an at-the-money 0DTE option from $0.50 to $3.00 — or the reverse. Tiny moves, enormous price swings.

That combination — fast decay plus violent swings — is exactly why *structure* matters more in 0DTE than anywhere else. The structure is how you choose which of those forces work for you and which work against you, and it is how you decide your maximum loss in advance. There are four honest structures. Here is each one, with the full math.

Structure 1: Buying Calls and Puts Outright

The simplest structure: you **buy** a call (a bet the price rises) or a put (a bet it falls), all by itself. This is called being **long premium** — you paid money (premium) and now time works against you.

The math. One contract controls 100 shares (or 100 units of index value), so every premium is multiplied by 100.

- You buy one SPX call, strike 5890, premium $3.00 → you pay 3.00 × 100 = **$300**.
- Your maximum loss is the premium: **$300**, reached if SPX closes at or below 5890 at expiration.
- Your breakeven at expiration is strike + premium = 5890 + 3.00 = **5893**. SPX must close above that for you to profit at all.
- If SPX closes at 5900, the call is worth 5900 − 5890 = 10.00 → $1,000. Your profit is $1,000 − $300 = **$700**.

The decay trap, in dollars. Same call, but SPX goes nowhere. You buy at 10:00 a.m. for $3.00 ($300). By 1:00 p.m. the index is exactly where it started, and the call is now worth $0.90 — the index did nothing wrong, the clock did the damage. You sell for $90. Loss: $300 − $90 = **$210, a 70% loss on a trade where the price never moved against you.** Let it ride to the close and it expires worth $0 — a 100% loss is a normal outcome for outright 0DTE buying, not a freak accident.

When outright buying makes sense. It is the honest structure when you expect a **fast, large move soon** — the move must be big enough and quick enough to outrun the decay. It is a poor structure for "I think it drifts up today," because drifting is exactly what theta eats. It is also the structure with the cleanest risk: you can never lose more than you paid, and there is nothing to be assigned. Small size is not optional here — a position that can be worth zero by lunch must be sized like it.

> **RISK**
> A bought 0DTE option does not need the market to move against you to lose everything. Standing still is enough. If your plan is "hold and hope," the structure has already decided the ending.

Structure 2: Debit Spreads — Cap the Cost, Cap the Win

A **debit spread** means you buy one option and sell another one further from the money, in the same expiration, and you pay a net amount (a **debit**) to open it. You are still betting on direction, but you have sold away the far tail of the move to lower your cost — and your maximum loss is simply what you paid.

Worked example — bull call spread on SPX:

- Buy the 5890 call for $4.00 → pay $400.
- Sell the 5900 call for $1.80 → receive $180.
- Net debit: 4.00 − 1.80 = 2.20 → **$220 paid**. That is your **maximum loss**, full stop.
- The spread is 10 points wide, so its maximum value at expiration is $10.00.
- Maximum gain: 10.00 − 2.20 = 7.80 → **$780**, reached if SPX closes at or above 5900.
- Breakeven: 5890 + 2.20 = **5892.20**.

Compare it to Structure 1: instead of paying $300–$400 for the single call and watching theta eat all of it, you paid $220, your loss is capped at that, and decay hurts less because the option you *sold* is decaying too — the sold leg's decay partly offsets the bought leg's decay. What you give up: everything above 5900.

If SPX rips to 5950, your spread is still worth exactly $10.00 and your profit is still $780. On 0DTE, where giant runaway moves are the exception and time is the enemy, many traders accept that trade gladly.

The honest catch. A debit spread still needs the move to actually happen, reasonably soon, and it needs price to reach your short strike for full value. Half-right (price rises 4 points but stalls below the short strike) often means a partial loss at expiration even though your direction was correct. Defined risk is not the same as low risk: losing the full $220 is a common outcome.

Structure 3: Credit Spreads — Collect Premium, Respect the Width

A **credit spread** flips the trade: you **sell** the option closer to the money and **buy** one further away as protection, and you receive a net **credit** — money in, up front. Now time decay works *for* you: if price stays away from your short strike, both options decay and you keep the credit. In exchange, your maximum loss is larger than your maximum gain. That asymmetry is the whole personality of this structure.

Worked example — bull put spread on SPX (the exact numbers to memorize):

- Sell the 5870 put for $2.10 → receive $210.
- Buy the 5865 put for $0.90 → pay $90.
- Net credit: 2.10 − 0.90 = 1.20 → **$120 received**.
- The spread is **5 points wide**. Maximum value of the spread against you is $5.00.
- **Maximum loss = width − credit = 5.00 − 1.20 = 3.80 → $380.**
- Maximum gain = the credit = **$120**, kept in full if SPX closes at or above 5870.
- Breakeven: 5870 − 1.20 = **5868.80**. Below that at expiration, you start losing; at or below 5865, you lose the full $380.

Read that ratio honestly: you risk $380 to make $120. That is not a flaw — it is the price of a trade that wins on a wide range of outcomes (SPX up, flat, or even down a little). But it means a credit spread trader **must** win often and must never let one loss become bigger than the math said. The math said $380. It can only be $380 because the long 5865 put protects you. Remove that protective leg and the same trade becomes an undefined-risk naked put — see the golden rule below.

Margin and collateral reality. Your broker is not lending you optimism; it holds the risk in cash. For a defined-risk credit spread, brokers typically require you to have the maximum loss available — here, **$380 per spread** is held as collateral while the trade is open. Sell 5 spreads and $1,900 of your account is spoken for. The $120 credit is not spendable profit while the trade is live; it is a deposit against the $380 you might owe. Beginners blow past this constantly: they see credits landing and keep stacking spreads until one bad expiration owes more than the account holds. The collateral number — not the credit — is the real size of the trade.

Pin risk warning for SPY. On cash-settled SPX, expiration is tidy: cash in or out. On share-settled SPY, if the price closes right at your short strike (**pin risk**), you may not know until after the close whether you were assigned 100 shares per contract. Many traders close SPY spreads before expiration for exactly this reason.

Structure 4: Iron Condor and Iron Butterfly — Getting Paid for a Range

Sometimes the honest read is not "up" or "down" but "probably nowhere big today." Two structures are built for that. Both are pure defined risk — there is a protective bought leg on **both** sides.

Iron condor. A bull put credit spread below the price plus a bear call credit spread above it. You are selling the idea of a big move in *either* direction.

- Sell the 5850 put @ $1.60, buy the 5840 put @ $0.70 → credit 0.90.
- Sell the 5920 call @ $1.50, buy the 5930 call @ $0.60 → credit 0.90.
- **Total credit: 1.80 → $180 received.** That is your **maximum profit**, kept if SPX closes between 5850 and 5920 at expiration.
- Each side is 10 points wide, and only one side can lose. **Maximum loss = width − credit = 10.00 − 1.80 = 8.20 → $820**, reached if SPX closes at or beyond either outer strike.
- Breakevens: 5850 − 1.80 = **5848.20** and 5920 + 1.80 = **5921.80**. Price must stay inside that range for any profit at all.

Iron butterfly. The same idea, concentrated: sell an at-the-money put *and* call (a short straddle) and buy wings on both sides. The credit is much larger because the sold options sit right at the price — and the profit zone is much narrower.

- Price is 5890. Sell the 5890 put and the 5890 call for a combined $9.00; buy the 5880 put and 5900 call for a combined $3.00 → **net credit 6.00 → $600**.
- **Maximum profit = $600**, kept only if SPX closes exactly at 5890 (in practice, near it).
- **Maximum loss = width − credit = 10.00 − 6.00 = 4.00 → $400**, beyond 5880 or 5900.
- Breakevens: 5890 − 6.00 = **5884** and 5890 + 6.00 = **5896**. A 12-point range to make anything, a pin at the strike to make it all.

The honest personality of range structures. High probability of a small win, real probability of a loss several times larger, and on 0DTE the range can be violated in a single violent hour — remember the gamma warning from the top of this module. These are advanced structures for genuinely quiet days, sized small, with an exit plan decided before entry. "Usually works" is not a risk plan.

The Four Structures, Side by Side

Structure	Cost & Max Loss	Max Gain	What Must Happen to Win
Buying a call/put	$300 paid in the example; max loss = the $300 premium	Unlimited for a call; very large for a put	A fast, large move in your direction, before the clock eats the premium
Debit spread	$220 paid in the example; max loss = the $220 debit	$780 in the example (the width minus the debit)	Price moves to or past the short strike by expiration
Credit spread	$120 received; $380 held as collateral; max loss = width − credit = $380	$120 — the credit you collected	Price stays on the safe side of the short strike until expiration
Iron condor / butterfly	$180 (condor) or $600 (butterfly) received; max loss = width − credit ($820 / $400 in the examples)	The credit received	Price stays inside the range (condor) or pins near the strike (butterfly)

One pattern to see in the table: **every honest 0DTE structure states its maximum loss as a simple formula before entry.** Debit paid. Width minus credit. If a structure cannot tell you its worst case in one line, it is not a structure — it is a hope.

The Golden Rule of 0DTE

> **RISK**
> On 0DTE, **undefined-risk short premium is how accounts die in one afternoon.** Selling a naked call or put expiring today means gamma is at its most violent, there is no time to recover, and the loss has no built-in limit. One headline, one sudden 1% index move, and a position that was "collecting easy premium" can owe many times the account. Every structure in this module exists specifically so that your worst case is a number you chose — $220, $380, $820 — not a number the market chooses for you.

That is the entire philosophy of this module in one line: on the fastest expiration there is, **defined risk is not a preference, it is the entry ticket.** Experienced 0DTE traders argue about direction, timing, and strikes. They do not argue about whether the loss is capped.

Common Mistakes at This Level

- **Treating a cheap premium as a cheap trade.** A $0.40 option is not "only $40 of risk, no big deal" when you buy 25 of them — and cheap usually means far from the money and almost certain to expire worthless.
- **Holding bought premium through the decay hours.** Buying at 10:00 a.m. and "giving it room" into the afternoon hands your money to theta even when your direction is right.
- **Removing or skipping the protective leg on a credit spread** to collect a bigger credit — converting a $380 defined loss into an undefined one to earn a few extra dollars.
- **Stacking credit spreads until the collateral is the whole account.** Five "small" $380 max losses are one $1,900 max loss wearing a trench coat.
- **Trading range structures on scheduled news days.** An iron condor into a major data release or a central-bank decision is not a range trade; it is an unpriced bet against a scheduled explosion.
- **Letting SPY spreads ride into the close at the short strike.** Pin risk can leave you owning 100 shares per contract over a weekend you never planned for.
- **No exit rule.** Deciding "I'll figure it out live" in an arena where prices can halve in five minutes means the decision gets made by panic. Set the exit — a profit target, a loss limit, a time stop — before entry.

Chapter Summary

- 0DTE options expire the same day; theta decay and gamma both accelerate violently, especially in the final hours, and a bought option can lose 100% in minutes.
- SPX options are cash-settled and European-style (no early assignment); SPY options are American-style, share-settled, with real assignment and pin risk.
- **Buying outright:** max loss = premium paid (×100 per contract); breakeven = strike + premium (call) or strike − premium (put); standing still is enough to lose everything.
- **Debit spread:** max loss = the debit paid; max gain = width − debit; the sold leg softens theta but caps the win.
- **Credit spread:** max gain = the credit received; max loss = width − credit (a 5-wide spread with a $1.20 credit risks exactly $380 per spread); your broker holds the max loss as collateral.

- **Iron condor / iron butterfly:** defined risk on both sides; max profit = total credit; max loss = width − credit; they pay for a range and suffer on violent days.
- Every honest 0DTE structure can state its worst case in one formula before entry.
- Undefined-risk short premium on 0DTE is how accounts die in one afternoon. Defined risk is the entry ticket.

Check Yourself

1. You buy one 0DTE call for a premium of $2.50. What is the most you can lose, in dollars?
2. A credit spread is 5 points wide and you collected a $1.20 credit. What are your maximum gain and maximum loss per spread?
3. In the debit spread example (buy the 5890 call @ $4.00, sell the 5900 call @ $1.80), what is the maximum gain, and where is breakeven?
4. Why can a bought 0DTE option lose most of its value even when the index price does not move against you?
5. In the iron condor example (total credit $1.80, both wings 10 wide), what is the maximum loss, and what must happen for you to keep the full credit?

Answers: 1) $250 — the premium paid × 100; a bought option can never lose more than you paid. 2) Maximum gain is the $120 credit; maximum loss is width − credit = 5.00 − 1.20 = 3.80, or $380. 3) Maximum gain is width − debit = 10.00 − 2.20 = $7.80, or $780; breakeven is 5890 + 2.20 = 5892.20. 4) Theta: a 0DTE option's entire time value must decay to zero today, and decay accelerates into expiration — the clock alone can consume the premium. 5) Maximum loss is width − credit = 10.00 − 1.80 = 8.20, or $820; you keep the full $180 credit only if price closes between the two short strikes (5850 and 5920) at expiration.

> **RULE**
> Before any 0DTE entry, say the worst case out loud as a dollar number — debit paid, or width minus credit, times 100. If you cannot say it, or the number is one you cannot afford, there is no trade.



AA3-03

ODTE TIMING
THE SESSION MAP

The day’s zones, the catalyst hours, and the sit-out rules.

Alpha Academy Level 3 · Team Alpha Trading

ODTE Timing — The Session Map

This module is about **when**, not what. You finished Level 1 and Level 2, so you already know what a 0DTE option is: a contract that **expires today** — bought in the morning, settled or worthless by the 4:00 PM close. What Level 3 adds is the map of the day itself. A same-day option does not live in "the market" in general. It lives inside one specific session, and that session has zones — hours where the odds, the costs, and the dangers are completely different from each other.

The honest warning for this arena: **most 0DTE premium buyers lose money** — not always on direction, but on the clock, a cost that never sleeps. A bought 0DTE option can lose 100% in minutes while the underlying barely moves. In this arena, timing is not a bonus skill. Timing *is* the trade.

> **NOTE**
> Everything in Alpha Academy is education, not financial advice. This module teaches how the trading day is structured and how time affects same-day options. It recommends no specific trading strategy — you bring your own method; this map just helps you stop overpaying the clock.

Why the Clock Rules This Arena

Two forces you met in Level 2 run this entire module, so here is the short refresher.

Theta is time decay — the value an option loses just because time passed. Every option's premium (the price you pay) has two parts: **intrinsic value**, the part that is already "real" because the option is in the money, and **time value**, the extra you pay for the chance things improve before expiration. On expiration day, all remaining time value must drain to zero by the close. A normal option spreads that drain over weeks. A 0DTE option does it in six and a half hours — most of it late, fast, and without asking permission.

Gamma is how quickly an option's sensitivity to price changes. In plain words: far from expiration, a $1 move in the underlying might change your option's price by $0.30. In the final hour of expiration day, that same $1 move can swing an at-the-money option by nearly the full $1 — or snap it to zero. Gamma is at its maximum near the close on expiration day. That is why the last hour feels like a different instrument from the first, even though the contract never changed.

One structural fact matters for timing too. **SPX index options** are European-style and cash-settled: they settle only at expiration, pay cash, and carry no early assignment. **SPY options** are American-style and settle in shares: hold an in-the-money SPY option into the close and you can end up owning (or owing) 100 shares per contract on Monday. Same index family, different closing risk. Know which one you hold before the final hour arrives.

The Session Map at a Glance

The regular session runs 9:30 AM to 4:00 PM Eastern. For a 0DTE trader it breaks into zones:

Zone	Clock (ET)	Character	What it does to a bought option
The Opening Hour	9:30–10:30	Fast, loud, expensive	Big moves possible; wide spreads tax every entry and exit

Zone	Clock (ET)	Character	What it does to a bought option
The Late-Morning Fade	10:30–11:30	Morning trend proves itself or dies	Momentum either continues or the day goes quiet
The Midday Dead Zone	~11:30–14:00	Slowest stretch of the day	Chop plus decay — premium bleeds with no payoff
The Final Two Hours	14:00–16:00	Direction gets decided	Gamma at maximum; moves pay fast or kill fast
The Power Hour	15:00–16:00	The last hour inside the last two	Biggest commitment of the day; pin risk at the close

These zones are **tendencies, not laws** — a major news day can make midday the wildest hour of the week. But across hundreds of ordinary sessions, this rhythm repeats often enough that ignoring it means paying for lessons the map gives you free.

Zone 1: The Opening Hour (9:30–10:30 AM ET)

The open is where overnight news gets priced in all at once. Earnings released after yesterday's close, overseas markets, economic data from 8:30 AM — all of it lands in the first minutes, along with the big institutional orders that waited all night. The result: the largest, fastest moves of the day often happen here — and so do the most violent **reversals**, moves that sprint one way, stop, and sprint back before a beginner has finished reacting.

The open also carries a hidden tax: **wide spreads**. The **bid** is the highest price a buyer is offering; the **ask** is the lowest price a seller will accept; the gap between them is the **spread**, and you pay it every time you enter and exit at market prices. At the open, market makers (the firms quoting both sides) face maximum uncertainty, so they protect themselves with wide quotes.

The math, with real-feeling numbers. At 9:31 AM, a SPY 0DTE call shows a bid of $1.00 and an ask of $1.30 — a $0.30 spread. You buy one contract at the ask: $1.30 × 100 = **$130**. The underlying does not move at all. One minute later you sell at the bid: $1.00 × 100 = **$100**. You just lost **$30** — 23% of your money — on a trade where the price went nowhere. Later in the day, a similar option might quote $1.12 bid / $1.16 ask, a $0.04 spread, where the same round trip costs about $4. The opportunity at the open is real. So is the toll.

Two habits follow. First, **implied volatility (IV)** — the market's priced-in expectation of future movement, baked into premiums — is usually richest in the morning, because the whole day's uncertainty is still ahead. Buyers pay top price for time at the exact moment decay starts working hardest. Second, patience at the open is a position: many experienced traders let the first minutes print before committing, because the opening move is frequently a head-fake.

Zone 2: The Midday Dead Zone (~11:30 AM–2:00 PM ET)

After the late-morning fade, the session goes quiet. Volume thins, the big morning orders are done, and the hours from roughly **11:30 AM to 2:00 PM ET are typically the slowest of the day** — a tendency, not a law. Price chops sideways in a narrow range, up a little, down a little, going nowhere with great dedication.

For a stock holder, a quiet midday costs nothing. For a 0DTE premium buyer, it is the most expensive nap in trading, because theta does not nap:

At 11:30 AM, with SPX at 6,000, you buy the 6,000 call expiring today for **$1.50** — that is $1.50 × 100 = **$150** out of your account. SPX spends the midday hours exactly as advertised: nowhere. At 2:00 PM, SPX is at 6,002 — actually *up* 2 points from where you bought. Your call is now worth **$0.55**, or $55. You lost **$95 — about 63% of the trade — while the index moved in your favor.**

Nothing went "wrong." The option's time value drained away during two and a half hours of stillness, and midday IV usually sags as well, pressing premiums down too. Direction was never the problem. The zone was. This is why the dead zone is where premium buyers bleed: the market does not have to move against you; it only has to refuse to move at all.

> **TIP**
> If your plan requires a real move, the dead zone is the market telling you the move is not happening right now. Holding a wasting asset through the chop "to give it time" gives it the one thing it is losing — time.

Zone 3: The Final Two Hours and the Power Hour (2:00–4:00 PM ET)

Late in the day, the session resolves. Traders who waited all day commit, positions get closed, hedges get adjusted, and the day's direction — if it has one — usually declares itself. For 0DTE options this is maximum gamma territory: near the close, an at-the-money option behaves almost like the underlying itself, gaining or losing close to a full dollar per dollar of price movement.

That cuts with both edges, and honest math means showing both.

The paying edge. At 3:00 PM, SPX is at 6,000. You buy the 6,010 call for **$0.40** — $40 total risk. SPX rallies into the close and finishes at 6,018. At expiration that call pays its intrinsic value: 6,018 − 6,010 = 8 points, × 100 = **$800**. A $40 ticket returned $800 because the move came while gamma was at maximum.

The killing edge. Same purchase, different afternoon: SPX pushes to 6,004, stalls, and closes at 6,003. The 6,010 call expires worthless. The full **$40 is gone in under an hour.** In the final hours there is no "wait for it to come back" — the contract's life ends at 4:00 PM whether you are ready or not.

Inside this zone sits **pin risk**. A **pin** is when the underlying settles almost exactly on a heavily traded strike at expiration. Big round strikes — SPX 6,000, SPY 600 — attract enormous open interest, and on some expiration days price hovers around them into the close like a magnet is holding it. Watch what that does to a contract: you bought the SPX 6,000 call at 2:00 PM for **$0.90 ($90)**. At 3:55 PM, SPX is at 5,999. If SPX closes at 6,001, your call pays 1 point × 100 = **$100**. If it closes at 5,999, it pays **$0**. A two-point wiggle in the final minutes — smaller than normal minute-to-minute noise — decides between a modest win and a total loss. That is not a trade anymore; it is a coin flip with a fee.

> **RISK**
> In the final hour, an at-the-money 0DTE option is the most violent instrument in the retail market. Size it like it can go to zero in minutes — because it can, and sometimes does.

The Scheduled Landmines: 8:30 AM and 2:00 PM

Most big intraday shocks are not surprises. They are **scheduled**, printed on public calendars weeks in advance. A **catalyst** is any event that can move prices sharply — and for the 0DTE trader, two clock times matter more than all others.

8:30 AM ET — the data drop. The biggest US economic reports land at 8:30 AM, an hour before the open: the **CPI report** (the Consumer Price Index, the government's main inflation reading) and the **jobs report** (monthly employment numbers, usually the first Friday). These prints regularly gap the whole market before the opening bell — making the opening hour on a data day its most explosive version, with the widest spreads of the week.

2:00 PM ET — the Fed. On scheduled meeting days, the **FOMC** (the Federal Open Market Committee, the Federal Reserve group that sets interest rates) announces its decision at 2:00 PM, and the chair's press conference follows at 2:30. The market can reprice everything in seconds.

Around both events, the same premium pattern repeats: IV is bid *up* beforehand (everyone knows a move is coming, so options get expensive) and **crushes** — collapses — the moment the news is out, because the uncertainty it was pricing is gone. This **IV crush** can make you right and poor at the same time. Example: at 1:55 PM on an FOMC day, you buy a SPY call for **$2.10 ($210)**. The announcement lands your way — SPY jumps $1.50 by 2:15. You check your call: **$1.45 ($145)**. You were right about direction and lost **$65**, because you paid for uncertainty that no longer existed.

You have exactly three legitimate choices around a scheduled catalyst: **trade it** (deliberately, small, accepting the crush as part of the price), **avoid holding through it** (flat before the print, re-enter after), or **stand aside entirely**. All three are professional. The only unprofessional option is the fourth: being surprised by it. Check the economic calendar before the open, every day, the way you check the weather before a trip.

The Expected Move: Your Ruler for the Day

How do you judge whether a move is big or small? "SPX moved 30 points" means nothing until you know what the day was *supposed* to do. Level 2 (AA2-06) gave you the tool: the **expected move** — the market's own priced-in estimate of how far price will travel over a period.

expected move ≈ IV × √(days ÷ 365) × price

Run it for one day. SPX is at 6,000 and at-the-money IV is 15% (0.15). For a single day, days = 1, and √(1 ÷ 365) ≈ 0.0523. So: 0.15 × 0.0523 ≈ 0.00785 — about **0.79%**. On 6,000, that is roughly **47 points**. The market is pricing an ordinary day as a range of about 5,953 to 6,047.

Now the zones get a ruler:

- If SPX has moved **20 points** by noon, that is ordinary — well inside the priced range. Expecting it to keep sprinting just because it started moving is betting on an exceptional day with ordinary-day evidence.
- If SPX has moved **80 points**, that is exceptional — nearly 1.7 times the expected move. The day has already delivered more than the market charged for.

- When you buy a 0DTE option, you are paying for movement. If the move you *need* is larger than the expected move, understand what you actually bought: a ticket that only pays on an above-average day.

The expected move does not predict direction and does not cap anything — exceptional days happen, and they are exactly why people buy these contracts. It tells you the price of the bet in the market's own units. A trader with a ruler and a trader without one are looking at the same chart and seeing different days.

The Sit-Out Rules

Here is the secret the session map is really teaching: **most of the day is waiting.** Six and a half hours contain perhaps thirty to sixty minutes where conditions genuinely suit a 0DTE trade — and which minutes those are depends on the day. The rest of the time, the highest-value action is doing nothing, on purpose.

The sit-out rules:

- **No edge, no trade.** "It has been quiet for an hour" is not an edge. "I am bored" is not an edge. If you cannot say in one sentence why *now*, you are the premium someone else is collecting.
- **Know your zone before you click.** Every entry should come with a zone label: opening volatility, dead-zone bleed, or late-day resolution — and a reason the zone helps instead of hurts this trade.
- **The calendar check is part of the entry.** No 0DTE position gets opened by a trader who has not seen today's 8:30 AM and 2:00 PM schedule.
- **Judge moves with the ruler.** Compare what has happened to the expected move before deciding what is likely next.
- **Sitting out is a position.** Cash held through the dead zone survives to the final two hours. The traders who last are not the ones who traded every zone — they are the ones still funded when their zone arrived.

Common Mistakes at This Level

- **Treating the whole session as one market** — buying premium at 11:45 AM with an opening-hour mindset, and paying the dead zone's bleed for the lesson.
- **Paying open spreads without looking** — entering at market in the first minutes and donating $20–$30 per contract to the spread before the trade even starts.
- **Holding through the chop "for the move"** — the move may come, but on expiration day your contract may not survive the wait; down 63% with the index up 2 points is what the wait costs.
- **Being surprised by the calendar** — holding a full-size position through an 8:30 AM print or a 2:00 PM FOMC announcement you never looked up.
- **Buying the rumor premium, eating the crush** — purchasing options minutes before a scheduled event at peak IV and losing money even when the direction call was right.
- **Confusing a pin with a setup** — holding an at-the-money option into the close at a big round strike, where a two-point wiggle decides between $100 and $0.
- **Forgetting which contract you hold** — letting an in-the-money SPY option ride into expiration and waking up Monday owning shares, when the SPX version would have simply settled in cash.

Chapter Summary

- A 0DTE contract lives and dies inside one session; the session has zones, and each zone has different costs and dangers.
- Theta drains all remaining time value to zero by the close, and gamma peaks in the final hours — the last hour is effectively a different, more violent instrument than the first, and pin risk waits at big strikes near the close.
- The opening hour (9:30–10:30 AM ET) offers the biggest moves and the most violent reversals, and charges with wide spreads — a $0.30 spread costs $30 per contract round trip with zero price movement.
- The midday dead zone (~11:30 AM–2:00 PM ET) is typically the slowest stretch; chop plus decay bleeds bought premium even when price moves slightly in your favor.
- Scheduled catalysts rule the day: major data at 8:30 AM ET (CPI, jobs) and FOMC announcements at 2:00 PM ET. Trade them, avoid them, or stand aside — never be surprised by them, and expect IV crush right after the news lands.
- The expected move — **IV × √(days ÷ 365) × price** — is the ruler: SPX at 6,000 with 15% IV prices an ordinary day at roughly ±47 points.
- Most of the day is waiting. No edge, no trade is not a slogan; in this arena it is the business model.

Check Yourself

1. Which part of the session is typically the slowest, and why is it specifically dangerous for someone holding a bought 0DTE option?
2. At the open, a call shows a bid of $1.00 and an ask of $1.30. You buy one contract at the ask and sell it one minute later at the bid, with the underlying unchanged. How much did you lose, and what caused the loss?

3. SPX is at 6,000 and at-the-money IV is 15%. Using **IV × √(days ÷ 365)**, what is the one-day expected move in points — and is a 25-point move by noon ordinary or exceptional?
4. What happens at 8:30 AM ET and at 2:00 PM ET that a 0DTE trader must check before the open, and what is IV crush?
5. What is pin risk, and why does it matter most in the final minutes of the session?

Answers: 1) The midday dead zone, roughly 11:30 AM–2:00 PM ET. Price usually chops sideways while theta keeps draining time value — the worked example lost $95 of a $150 premium while SPX rose 2 points. 2) $30: you paid $1.30 × 100 = $130 and sold for $1.00 × 100 = $100. The wide opening spread caused the loss; price never moved. 3) √(1 ÷ 365) ≈ 0.0523, so 0.15 × 0.0523 ≈ 0.79%, and 0.79% of 6,000 ≈ 47 points. A 25-point move is ordinary — well inside the priced range. 4) At 8:30 AM ET, major economic reports (CPI, the jobs report) are released; at 2:00 PM ET on meeting days, the FOMC announces its rate decision. IV crush is the collapse of implied volatility — and of option premiums — right after a scheduled event, once the uncertainty the premium was pricing has passed; it can make a correct direction call still lose money. 5) Pin risk is the risk that price settles almost exactly on a heavily traded strike at expiration. In the final minutes, a point or two across that strike decides whether an at-the-money option pays out or expires worthless — close to a coin flip.

> **RULE**
> The clock is a position. Before any 0DTE trade, name the zone, check the calendar, and measure the day against its expected move — and when none of it lines up, the correct trade is the one you do not take.



AA3-04

ODTE RISK COMMANDMENTS

Daily loss caps, trade caps, hard exit times — the doctrine that keeps you alive.

Alpha Academy Level 3 · Team Alpha Trading

0DTE Risk Commandments

This module is the risk doctrine for **0DTE trading** — trading options that expire **today**. "0DTE" stands for "zero days to expiration": an option contract with only hours of life left. You already know from Level 1 and Level 2 what an option is — a contract giving the right to buy (a **call**) or sell (a **put**) 100 shares of something at a set price (the **strike price**) before it expires. A 0DTE option is that same contract on its final day, and the final day changes everything about the risk.

Here is the honest warning up front. On expiration day, **theta** — the daily cost of time passing, which eats an option's value — does not just speed up. It accelerates violently in the final hours, because there is almost no time left to lose. **Gamma** — how fast an option's price sensitivity changes — does the same thing, so a 0DTE contract can swing from "working" to "worthless" in minutes. A bought 0DTE option can lose 100% of what you paid for it, fast, on an ordinary wiggle. Most 0DTE premium buyers lose money. That is the base rate. The traders who survive this arena are not the best predictors — they are the ones with the strictest rules.

This module gives you seven commandments. They are not tips. You do not get to follow six of them. In 0DTE, the day you break a rule is usually the day that costs you the month.

> **NOTE**
> Everything in Alpha Academy is education, not financial advice. This module teaches risk process only — no strategy is taught or recommended here; you bring your own method.

Why 0DTE Needs Its Own Rulebook

In normal trading, a mistake is often recoverable. You buy a stock at $50, it dips to $48, you have time to think. A 0DTE contract gives you no such mercy, for three reasons.

- **The asset is melting.** An option's value has two parts: **intrinsic value** (what it would be worth exercised right now) and **time value** (what buyers pay for the chance it moves). On expiration day the time value is draining to zero by the clock, not by opinion. A contract you bought for $1.50 in the morning can be worth $0.30 by lunch even if the market barely moved.
- **Decisions come faster than judgment.** A normal trader might take one or two trades in a day. A 0DTE trader can take ten — each one a fresh chance to be wrong, emotional, and oversized. Your rules must be set while you are calm — they will be executed when you are not.
- **There is no tomorrow for the position.** A stock that dips can come back next week. An expiring contract that is worthless at the close is worthless forever. Every 0DTE position ends today: sold, exercised, or zero.

> **RISK**
> Index options on SPX are **cash-settled** (paid in cash, never shares) and **European-style** (exercisable only at expiration) — no early assignment risk. SPY options are **American-style** (exercisable any time) and settle in shares, so assignment risk is real. Know which product you are trading; the rules below apply to both.

The Commandments

Commandment 1: Set the Daily Max Loss in Dollars Before the Open — and Keep It Smaller Than a Normal Day

The rule: Before the market opens, write down the most money you are allowed to lose today, in actual dollars. When your losses reach that number, you are done. Not "probably done." Done.

Why: Your Level 1 rule was to risk about **1% of your account per trade** — on a $10,000 account, $100 per trade. In 0DTE that number is too big per trade, because trades come so much faster. Risk $100 five times before lunch and you are down $500 — 5% of your account — before your coffee is finished. So 0DTE sizing starts smaller: a **fraction** of the 1% rule per trade, most often 0.25% to 0.5%.

Worked example on a $10,000 account:

- Per-trade risk at 0.5% = **$50 per trade**.
- Daily max loss at 3 trades' worth = **$150 for the day**.
- Three losing trades in a row = you are down $150, which is a bad morning, not a disaster.

Compare that with a normal stock-trading day, where one or two trades at 1% risk means a worst day of about $100–$200 anyway. Your 0DTE day is deliberately capped at a similar or smaller size. The exact percentages are yours to set — what is not negotiable is that the numbers are written **before the open**, while you are calm, and never renegotiated during the session.

Commandment 2: Cap the Number of Trades

The rule: Decide the maximum number of trades you may take today — three is a sane ceiling for a developing trader — and count every entry, including "just one more."

Why: Every trade is a coin you flip against your own discipline. Early trades are usually your planned ones. Late trades are usually frustration wearing a costume. A trade cap also protects you from a slow bleed: ten small "harmless" 0DTE losses at $50 each is $500 — the same damage as one huge mistake, except it felt reasonable the whole way down. If your three trades are done and the market does something beautiful at 2 PM, watch it, journal it, and leave it. The market opens again tomorrow — your account has to be alive to see it.

Commandment 3: Never Average Down an Expiring Contract

Averaging down means buying more of a losing position to lower your average cost. With stock, it is debatable. With an expiring option, it is how accounts die.

Why: A stock that fell from $50 to $45 is cheaper. An expiring contract that fell from $1.50 to $0.60 is usually not cheaper — it is **closer to worthless**, because most of that drop is time value burning off on schedule. It is a melting asset, not an investment. You are not buying a discount. You are buying more of the melt.

Worked example: you buy 5 contracts at $1.50 = $750. The contract falls to $0.60. Averaging down, you buy 5 more at $0.60 = $300 more, "because now my average is only $1.05." Your total spent is now $1,050 on a contract with hours of life left. If it expires worthless — the common outcome for a contract that has already collapsed — you turned a $750 problem into a $1,050 loss. Averaging down did not reduce your risk. It increased your exposure to the exact outcome already happening.

> **RULE**
> In 0DTE, if a position is losing, your choices are exit or hold the original size to your planned stop. Adding to a loser is not on the menu. Ever.

Commandment 4: Set Hard Exit Times

The rule: Every 0DTE position gets two exits decided before entry: a **price exit** (your stop — the loss amount that closes the trade) and a **time exit** (a clock time by which the position is closed, no matter what it is doing). A position still open at your cutoff gets closed, not hoped.

Why: In the final stretch of the session, theta decay is at its most violent and prices whip around on small moves. "I'll give it ten more minutes" is the most expensive sentence in 0DTE, because in those ten minutes a contract can halve — and then halve again. A time exit also protects you from the end-of-day trap with share-settled options: holding a SPY option into the close can leave you assigned shares and overnight risk you never planned.

Worked example: your rule is "flat by 3:30 PM ET." At 3:30, your contract bought for $1.20 is at $0.95. You close it: loss = 2 contracts × ($1.20 − $0.95) × 100 = **$50**. Annoying. The trader without a cutoff "gives it a chance," watches it print $0.20 by 3:50 on one wrong wiggle, and exits at 2 × ($1.20 − $0.20) × 100 = **$200** — or holds to expiration and loses the full $240.

Commandment 5: When the Daily Stop Is Hit, the Platform Closes — and There Is No Revenge Trade

A **revenge trade** is a trade taken to win back a loss. It is not analysis. It is anger with a buy button.

Why: The moment you hit your daily max loss, you are in your worst decision-making state of the day: frustrated, rushed, and focused on a number instead of the market. So the rule is physical, not mental: when the daily stop is hit, you close the platform. Closed means closed — you do not "just watch for a setup," because watching leads to clicking. Log the day in your journal while it is fresh, and leave. The traders who last in 0DTE are not the ones who never have red days. They are the ones whose red days are **small and boring**.

Commandment 6: Size Spreads by Max Loss — Never by "Contracts I Can Afford"

A **spread** is a combination of two options — one bought, one sold — that caps both your profit and your loss. Spreads are the sanest route into 0DTE for most people — but only if you size them honestly.

The math that matters:

- **Debit spread** (you pay to open it): max loss = the **debit paid**. Pay $1.30 for a spread → max loss is $130 per spread.
- **Credit spread** (you get paid to open it): max loss = **width of the strikes minus the credit received**, times 100. Sell a $5-wide spread for $1.20 credit → max loss = ($5.00 − $1.20) × 100 = **$380 per spread**.

Why: The trap is sizing by purchase price. "The spread only cost $1.30, and I have $1,300 — I can afford ten of them." Ten debit spreads at $130 max loss each = **$1,300 of real risk** — 13% of a $10,000 account on one idea. The premium felt small. The risk was not. Or the credit version: "I collected $120, great deal" — while quietly accepting $380 of risk per spread to collect it.

Correct sizing works backwards from your risk number. Your per-trade risk is $50 (Commandment 1). A credit spread with $380 max loss **does not fit your plan at any size** — even one spread risks more than

seven trades' worth of your per-trade limit. You either find a narrower structure whose max loss fits, or you skip the trade. Skipping is a position too.

Commandment 7: One Good Trade — A+ or Nothing

The rule: You are looking for **one good trade** — your best, fully planned setup, the one you would take with your instructor watching over your shoulder. That is the whole day's ambition. If it never appears, you take zero trades, and zero is a winning score.

Why: 0DTE manufactures temptation. Something is always moving, always expiring, always whispering "you could double your money in twenty minutes" — and sometimes that's true, which is exactly what makes it dangerous. The mindset shift is from "how many trades can I take?" to "how few trades can I take and still call this a good day?" One planned trade, sized and exited by the rules, teaches more and costs less than eight improvised ones. Chasing every move is not ambition — it is how the arena collects its fee, and the fee is your account.

The Commandments at a Glance

#	Commandment	The One-Line Why
1	Daily max loss in dollars, set before the open, smaller than a normal day	Trades come faster, so the day's fuse must be shorter
2	Cap the number of trades	Late trades are frustration, not analysis
3	Never average down an expiring contract	It is melting, not cheap
4	Hard exit times	A position open at the cutoff gets closed, not hoped
5	Daily stop hit = platform closed	Revenge trades are donations
6	Size spreads by max loss	"Affordable premium" is not the same as acceptable risk
7	One good trade: A+ or nothing	Zero trades is a winning score

Worked Example: A Bad-Day Autopsy

Same trader. Same $10,000 account. Same losing morning in the market. Two versions of the day — one where the commandments exist, and one where they do not. Watch how the damage is never caused by the market — it is caused by which rule breaks first, and what that break unlocks.

Version One: The Day With No Rules — Final Score: −$1,850

Trade 1 — Violation: oversizing (Commandments 1 and 6 broken). The trader never set a per-trade risk number, so "feels right" did the sizing: **10 contracts bought at $1.20 = $1,200** — twelve percent of the whole account riding on one expiring idea. The market moves against the trade. The contract falls to $0.75 and, with no planned stop either, the trader finally exits there: 10 × ($1.20 − $0.75) × 100 = **−$450**. One trade just cost more than an entire ruled day is allowed to lose.

Trade 2 — Violations: revenge entry and averaging down (Commandments 3 and 5 broken). Now the trader is not analyzing — he is trying to get his $450 back. He re-enters: **10 contracts at $0.90 = $900**. The contract keeps melting, down to $0.50. Instead of exiting, he averages down: **10 more contracts at $0.50 = $500 more**, telling himself his average cost of $0.70 "only needs a small bounce." There is no bounce. There is only the clock. All 20 contracts expire worthless: −$900 − $500 = **−$1,400** on this one idea. No daily stop and no cutoff existed, so he held to expiration, hoping.

The day's total: −$450 + −$1,400 = −$1,850. That is 18.5% of the account in a single day. And the quiet damage underneath: to recover from −18.5%, the account needs a gain of about **+23%** just to get back to $10,000 — months of good trading spent climbing out of one morning's hole.

Version Two: The Same Day With the Commandments — Final Score: −$300, Done by 11 AM

The rules, written before the open: per-trade risk **$100** (a starter Level 3 size while learning this arena), maximum **3 trades**, daily max loss **$300**, flat by a set time, platform closes at the stop.

Trade 1: Sized by the stop, not by excitement. The trader buys **2 contracts at $1.20**, with a planned exit at $0.70. The market moves against it — same market as Version One — and the stop fills: 2 × ($1.20 − $0.70) × 100 = **−$100**. **Trade 2:** a second planned idea, same size, also wrong: **−$100**. **Trade 3:** third and final allowed trade, same size, also wrong: **−$100**. Daily max loss reached: **−$300**. Platform closed. Journal written. Done by 11 AM.

The Autopsy Report

	No Rules	With Commandments
Biggest single position	$1,200 at risk (10 contracts)	$240 paid, $100 planned risk
Trades taken	2 ideas, 20 contracts on the second	3 trades, capped
Revenge trade	Yes — and doubled by averaging down	Impossible: cap and daily stop
Day's loss	−$1,850 (−18.5%)	−$300 (−3%)
Gain needed to recover	About +23%	About +3.1%
Day ended	At expiration, hoping	11 AM, by choice

Nothing about the market differed between the two versions. Every idea lost in both. The entire $1,550 difference was manufactured by three decisions: sizing by feel instead of by max loss, re-entering for revenge, and averaging down into a melting contract. **In 0DTE, your losses are mostly self-inflicted — good news, because what is self-inflicted can be rule-inflicted instead.**

Common Mistakes at This Level

- **Setting the daily max loss in your head.** If it is not written down before the open, it does not exist — it will be renegotiated at the worst moment.
- **Using the full Level 1 1% per-trade risk in 0DTE.** Five fast trades at 1% is a 5% day. Fraction it down.
- **Counting a re-entry as "the same trade."** Every entry counts against the cap — splitting one bad idea into four entries does not make it one trade.
- **Averaging down because "it's cheap now."** An expiring contract at $0.30 is usually cheap for a reason: it is nearly out of time and nearly out of hope.
- **Treating a credit spread's premium as the risk.** You collected $120; your risk is $380. Size from the $380.
- **Moving the exit time "just this once."** The cutoff exists precisely for the day it feels most wrong to honor it.
- **Giving back a green morning** with three afternoon "bonus" trades. The trade cap applies on good days too.

Chapter Summary

- 0DTE options expire the same day; theta decay and gamma accelerate violently in the final hours, and a bought contract can lose 100% in minutes.
- Set a daily max loss in actual dollars before the open — and size each trade at a fraction of the Level 1 1% rule, because trades arrive faster here.
- Cap your trades; every entry counts, including re-entries of the same idea.
- Never average down an expiring contract — it is a melting asset, and adding increases exposure to the outcome already happening.
- Every position gets a price exit and a time exit before entry; a position open at the cutoff gets closed, not hoped.
- When the daily stop is hit, the platform closes. Revenge trades are donations.
- Size spreads by max loss: debit spread max loss = debit paid; credit spread max loss = width − credit (× 100). If one spread's max loss exceeds your per-trade risk, it does not fit.
- The goal is one good trade. Zero trades on a day with no A+ setup is a winning score.
- The bad-day autopsy: identical losing ideas cost −$1,850 without rules, −$300 with them. The difference was never the market.

Check Yourself

1. On a $10,000 account, why should per-trade risk in 0DTE be a fraction of the Level 1 1% rule instead of the full $100?
2. You sell a $5-wide credit spread and collect $1.20. What is your maximum loss on one spread?

3. Your contract has fallen from $1.50 to $0.60. A fellow student says "average down, it's cheap." What is wrong with that advice in 0DTE?
4. Your rules say flat by 3:30 PM. At 3:30 your position is open and down. What do you do, and why?
5. In the bad-day autopsy, both versions of the trader had only losing ideas, yet one lost $1,850 and the other $300. Name the three decisions that created the difference.

Answers: 1) Because trades come much faster in 0DTE — several full-size losses can stack into a 5% day before lunch; smaller per-trade risk (such as 0.25–0.5%) keeps the whole day survivable. 2) ($5.00 − $1.20) × 100 = $380. 3) The drop is mostly time value melting on schedule, not a discount — the contract is closer to worthless, and adding increases exposure to the outcome already unfolding. 4) Close it. The cutoff was set while calm; in the final stretch decay is at its fastest, and "ten more minutes" is how small planned losses become full losses. 5) Sizing by feel instead of max loss (10 contracts, $1,200), the revenge re-entry after the first loss, and averaging down into the expiring contract — plus the missing daily stop and cutoff that let all three run to expiration.

> **RISK**
> Write your numbers before the open, and honor them like they were written by someone smarter than you — they were: you, while calm. In 0DTE the market does not take your money nearly as fast as you can hand it over; the commandments exist so you stop handing.



AA3-05

THE ODTE PLAYBOOK

One complete trading day — prep, checklist, model day, journal.

Alpha Academy Level 3 · Team Alpha Trading

The ODTE Playbook — A Complete Trading Day

This module is not about predicting where the market will go. It is about **process** — the repeatable routine that wraps around whatever entry method you have learned and tested elsewhere. A **0DTE option** is an option contract that expires today ("zero days to expiration"). By the closing bell it is worth its final value or it is worth nothing. There is no tomorrow for it, no time to recover from a mistake, and no room for improvising.

That is exactly why 0DTE trading lives or dies on routine. The traders who survive this arena are not the ones with the cleverest predictions. They are the ones who do the same preparation, the same checks, and the same review every single day.

> **NOTE**
> Be honest about the base rate before you read another word: most 0DTE premium buyers lose money. A bought 0DTE option can lose 100% of its value in minutes, and on expiration day **theta** (the daily time decay that erodes an option's price) and **gamma** (the speed at which an option's sensitivity to price changes) both accelerate violently in the final hours. This playbook cannot make a losing method win. It can keep one bad day from becoming a bad month, and turn your trading into data you can learn from. Education only — not financial advice.

Before Anything Else: Know Your Instrument

The routine in this module works with any 0DTE structure, but you must know which product you are trading, because settlement rules differ:

- **SPX index options** are **cash-settled** (profits and losses are paid in cash, never in shares) and **European-style** (they can only be exercised at expiration, so there is no early assignment). When the day ends, the contract simply settles.
- **SPY options** are **American-style** (they can be exercised at any time) and settle in actual shares. A short SPY option left open into expiration carries real **assignment** risk — being forced to buy or sell 100 shares per contract.

Major indexes now offer expirations every trading day, so "0DTE" is available every morning. Availability is not an invitation.

Part 1: Pre-Market Prep (Before 9:30 AM)

Preparation happens while the market is closed, when you are calm and nothing is moving. Every item below gets answered in writing — anywhere you can see it during the session. If it is not written down, it does not exist at 10:45 AM when you are emotional.

The Pre-Market Checklist

- **Catalysts.** What is scheduled today? Economic reports (jobs data, inflation numbers, Federal Reserve announcements and speeches), major earnings releases, and anything that hit the news overnight. A **catalyst** is an event that can move prices sharply. Write down the exact release times. Many 0DTE traders simply stand aside in the minutes around a major release — decide that now, not during it.
- **Expected move.** Brokers and options platforms display the **expected move** — the price range the options market is pricing in for the day, derived from option prices. If SPX closed at 6,000 and the expected move is ±35 points, the market is budgeting for a day roughly between 5,965 and 6,035. This is your context: a trade idea that needs a 60-point move on a 35-point day is a lottery ticket, and you should know that before you pay for it.
- **Key levels from prior days.** Mark yesterday's high and low, the prior day's closing price, and any obvious recent highs and lows on your chart. These are the lines the whole market can see. Your plan for the day should reference them: "If price pushes above yesterday's high and holds, conditions fit my method. If it chops between yesterday's high and low all morning, they do not."
- **Daily max loss — written down.** This is the most important line of the day. Decide the maximum dollar amount you are allowed to lose today, in advance, as a fixed number. Example: on a $10,000 account risking 3% as a hard daily cap, the number is **$300**. Write it where you will see it: "MAX LOSS TODAY: $300." When the day's losses reach it, you are done — platform closed, no exceptions, no "one more to get it back." That is not a suggestion inside this playbook; it is the playbook.
- **Session rules.** Also write your structural limits for the day: maximum number of trades (many disciplined 0DTE traders allow themselves one to three), the latest time you may open a new position, and the time by which you will be completely flat. On expiration day, new positions opened in the final hour face the fastest decay of the entire week.

> **RULE**
> The plan is written before the open because the person writing it is smarter than the person trading at noon. That person is calm, rested, and has nothing to prove. Trust them.

Part 2: The Trade-Entry Checklist

Your entry method — whatever signals you have tested and chosen to trade — tells you *when a trade might exist*. This checklist decides whether you are allowed to take it. Every box must be checked **before** you click buy. If any box fails, there is no trade, and "the setup looked perfect" is not an override.

- **Structure chosen, and it fits the day.** Decide exactly what you are trading before you trade it. A single bought call or put has a max loss equal to the premium paid. A **debit spread** (buying one option and selling a further one in the same expiration) costs less and caps both profit and loss — its max loss is the debit paid. A **credit spread** (selling one option and buying a further one for protection) collects premium up front — its max loss is the spread width minus the credit received, times $100 per spread. Example: you sell a spread that is 5 points wide for a $1.20 credit. Max loss = (5.00 − 1.20) × $100 = **$380 per**

spread. Know that number before entry, not after.

- **Max loss known and inside the day's budget.** Add this trade's max loss to everything you have already lost today. The total must stay inside your written daily max loss, with room to spare. A trade whose max loss would break the daily cap is not a smaller trade waiting to happen — it is a trade you skip, or size down to one contract, or do not take at all.
- **Exit rules set BEFORE entry.** Three exits, decided now:

- **Profit exit:** the premium level or percentage gain at which you take profit or scale out (reduce the position by selling part of it). - **Loss exit:** defined in Part 3 below — you will use two kinds, and both get written down. - **Time exit:** the clock time by which this trade is closed no matter what it is showing.

- **No conflicts.** Is a scheduled catalyst five minutes away? Is the bid-ask spread (the gap between the price buyers offer and sellers ask) unusually wide, meaning you overpay to enter and get underpaid to exit? Is this your fourth trade idea when your rule says two? Any yes means stand down.

> **TIP**
> Print the checklist. Physically checking boxes with a pen feels old-fashioned, and that is the point — it forces a five-second pause between impulse and order, and five seconds is where most bad 0DTE trades die.

Part 3: Position Management Rules

Once you are in a 0DTE trade, the option decays every minute whether the market moves or not. Management is not decoration; it is most of the job. Define all three mechanisms before entry, then simply execute them.

Scaling at Defined Profit Levels

Scaling out means selling part of the position at a pre-set profit level instead of holding everything for a bigger move. Example with 2 contracts: "At +50% premium gain, sell 1 contract and bank it. The remaining contract now carries the rest of the plan." Scaling converts paper gains into realized ones and lowers the pressure on the remainder of the trade. The honest cost: on the day's biggest runner, you will make less than the trader who held everything. That is the price of consistency — pay it on purpose.

Two Kinds of Stops — Define Both Honestly

A **premium stop** exits when the option's own price falls to a set level — for example, "exit if the premium loses 40% of what I paid." Honest facts about premium stops on 0DTE: decay alone can push a premium down 40% while the underlying (the index or stock the option is based on) has barely moved, especially later in the day. A premium stop protects you from total loss, but on expiration day it can also eject you from a trade that was never actually wrong on price.

An **underlying stop** exits when the underlying reaches a price level that invalidates your idea — for example, "exit if SPX trades below yesterday's low." Honest facts about underlying stops: they ignore decay entirely, so a trade can be "right" on level and still bleed to zero while you wait for a level that never breaks. And in a fast move, the premium you actually receive on exit can be far worse than the level implied.

Neither stop is magic. Mature 0DTE traders write down **both** ("exit at −40% premium OR if SPX loses yesterday's low, whichever comes first") and accept the trade-off with open eyes. What is not acceptable

is entering with neither and deciding in the moment — in the moment, hope does the deciding.

Time Stops

A **time stop** closes the trade at a set clock time regardless of profit or loss. On expiration day this rule matters more than any other in this module, because decay is not linear: an option can hold most of its value until mid-afternoon and then collapse in the final hour. Common forms: "flat by 3:30 PM ET, no exceptions," or "any trade still open at 2:00 PM that has not reached its first profit target gets closed." Pick yours in the morning. The close of your trading day is a decision you make at 8:00 AM, not at 3:47 PM with a dying position open.

Part 4: A Model Day, Hour by Hour

What follows is one complete, ordinary day run under this playbook. The entry method is deliberately unnamed — imagine your own tested signals filling those slots. Numbers are realistic and the math is shown in full. The account is $10,000.

Time (ET)	What happens
8:00 AM	Prep. No major economic releases today; two large companies report earnings after the close (noted, not traded). SPX closed yesterday at 6,012. Expected move for today: ±32 points. Yesterday's high 6,020, low 5,968. Written rules for today: MAX LOSS $300. Maximum 2 trades. No new entries after 2:00 PM. Flat by 3:30 PM.
9:30–10:00	Market opens and chops between 6,005 and 6,018. No signal per the method. Doing nothing is the position.
10:15	A signal appears with SPX at 6,022, above yesterday's high. Entry checklist: structure = buy SPX calls expiring today, strike 6,030, premium $1.40. Buy 2 contracts: 2 × $1.40 × 100 = $280 total cost. Max loss = $280 (premium paid), inside the $300 daily cap. Exits written down: scale 1 contract at $2.10 (+50%). Premium stop −40% → exit at $0.84. Underlying stop: SPX below 6,010. Time stop: closed by 3:30 no matter what.
11:05	SPX reaches 6,041. Premium is $2.12. Scale rule triggers: sell 1 contract at $2.10. Banked: ($2.10 − $1.40) × 100 = +$70. One contract remains, plan unchanged.
12:30	SPX drifts down to 6,018. The remaining contract's premium has fallen to $0.95. Underlying stop (6,010) not hit; premium stop ($0.84) not hit; time stop not reached. The rules say hold. So the playbook holds — no opinion required.

Time (ET)	What happens
1:20 PM	SPX slides through 6,010. Underlying stop triggers. Exit the last contract at $0.92. Result on this contract: ($0.92 − $1.40) × 100 = −$48.
1:25 PM	Trade closed and logged. Day's net so far: +$70 − $48 = +$22. One trade used of two allowed.
2:10 PM	A fresh signal appears. Check the written rules: no new entries after 2:00 PM. Also, midday premiums are thin and decaying fast — a new position would need an immediate, large move to overcome decay. The playbook refuses this trade. Refusing a setup is a completed task, not a missed opportunity.
3:30 PM	Flat (already flat since 1:20). Session ends by rule, not by emotion.
3:45 PM	End-of-day routine (Part 5). Total time at the screen with an open position: about 3 hours. Total trades: 1 taken, 1 refused. Net: +$22.

Read that result again: **+$22**. That is what a well-run 0DTE day usually looks like — unremarkable. The playbook's real product is not the $22. It is that the worst version of this day was capped, in writing, at −$300 before the open, and every decision after 9:30 was made by rules instead of adrenaline.

Part 5: The End-of-Day Routine

Close the day the same way every day, within half an hour of your last trade, while details are still true. A **trading journal** is the written record of your trades and decisions; for 0DTE it needs fields specific to this arena, because the lessons hide in the timing and the rules, not just the dollars.

Record for every trade:

- **Structure** — exactly what you traded (calls, puts, debit spread, credit spread), strikes, and expiration.
- **Entry and exit times** — to the minute. 0DTE performance often splits sharply by time of day, and you cannot see that pattern without timestamps.
- **Max loss allowed** — the trade's defined max loss, and the day's written cap.
- **Premium paid/collected and exit premium** — the raw prices, so percentages are honest.
- **Which exit fired** — profit target, premium stop, underlying stop, or time stop. If the answer is "none, I just felt like exiting," that is the most important entry in the journal.
- **Rules followed: Y/N** — one letter, no essays. Did you follow the checklist and the written plan, yes or no?

Then one line for the day: total P&L, trades taken, trades refused, and whether the daily max loss was respected. Refusals get logged too — they are decisions, and a week of good refusals is a skill taking shape.

Part 6: The Weekly Review

Once a week (the weekend works), read the week's journals together and answer five questions with numbers, not feelings:

- **Rule adherence rate.** Count trades where "rules followed" = Y, divided by total trades. This is the single most important statistic a developing 0DTE trader owns. Below roughly 90%, the problem is not your method — it is your execution, and more screen time will make it worse, not better.
- **Refusals.** How many setups did the playbook refuse, and were the refusals correct in hindsight? If refused trades would mostly have lost, your filters are earning their keep.
- **Time-of-day split.** Group results by entry hour. Many traders discover their morning trades are sound and their afternoon trades are donations. The playbook then adjusts the no-new-entries time — based on data, not mood.
- **Exit audit.** Which exit type fired most, and did stops do their job (losses near the defined max loss) or leak (losses far beyond it)?
- **One fix only.** Choose the single most repeated rule break and make next week's only goal eliminating it. One fix per week compounds; five fixes per week evaporate by Tuesday.

> **RISK**
> The fastest way to lose money in 0DTE is not a bad signal — it is an unwritten day. No written max loss, no checklist, no journal: that is not trading, that is buying expensive entertainment that expires at 4:00 PM.

Common Mistakes at This Level

- **Writing the max loss in your head.** A mental cap moves when losing hurts. A written cap does not.
- **Setting exits after entry.** Exits designed while a position is open are designed by hope and fear. Before entry, they are designed by you.
- **Using only a premium stop and calling it risk management.** On expiration day, decay can trigger it on a trade that was right — or you quietly widen it mid-trade, which means it never existed.
- **Trading through scheduled catalysts "because the setup was there."** The checklist asks about catalysts precisely because the setup will not.
- **Refusing to count refusals.** If only taken trades get logged, you can never learn whether your filters help or hurt.
- **Judging the week by P&L alone.** A profitable week with a 60% rule-adherence rate is a warning, not a victory — the luck is borrowed.

Chapter Summary

- A 0DTE option expires today; theta and gamma accelerate violently into the close, and a bought option can lose 100% in minutes.
- SPX options are cash-settled and European-style; SPY options are American-style with real assignment risk. Know which you hold.
- Pre-market prep is written: catalysts with times, the expected move, key levels from prior days, session rules, and a fixed daily max loss.

- The entry checklist is mandatory: structure chosen, max loss known and inside the day's budget (credit spread max loss = width − credit, × $100), and profit, loss, and time exits all set before entry.
- Manage with both stops honestly understood: a premium stop is vulnerable to decay; an underlying stop ignores decay. Time stops end every trade by the clock.
- Scaling out at defined profit levels banks gains and lowers pressure, at the honest cost of capping your biggest runners.
- A model day is mostly waiting: one trade taken with full math, one setup refused by rule, flat well before the close, and a small, boring result.
- Journal 0DTE-specific fields — structure, entry/exit times, max loss allowed, which exit fired, rules followed Y/N — and log refusals too.
- The weekly review runs on numbers: rule adherence rate, refusals, time-of-day split, exit audit, and exactly one fix for next week.

Check Yourself

1. Why must the daily max loss be written down before the open instead of decided during the session?
2. You sell a 5-point-wide credit spread expiring today for a $1.20 credit. What is the maximum loss on one spread?
3. You buy 2 SPX calls at a $1.40 premium. What is your total cost, and what is the maximum you can lose?
4. What is the honest weakness of a premium stop on expiration day, and what is the honest weakness of an underlying stop?
5. In the weekly review, what does a rule adherence rate below about 90% tell you?

Answers: 1) Because decisions made mid-session are made by an emotional trader under pressure; a written cap decided calmly in advance is fixed, visible, and cannot be renegotiated in the moment. 2) Max loss = (width − credit) × $100 = (5.00 − 1.20) × $100 = $380 per spread. 3) Total cost = 2 × $1.40 × 100 = $280; for bought options the maximum loss is the premium paid, so $280. 4) A premium stop can be triggered by time decay alone even when the underlying has barely moved, ejecting a trade that was never wrong on price; an underlying stop ignores decay completely, so a position can bleed toward zero while the stop level is never touched. 5) That the problem is execution, not the method — more trading will amplify the rule-breaking, so the fix is discipline (and often less screen time), not a new strategy.

> **RULE**
> Process is the product. Write the day before it starts, check the boxes before you enter, let the exits do their job, log everything — and let boring, capped, well-reviewed days compound into a career.



CU-05

TRACK A EXAM
ODTE MASTERY

30 questions over the ODTE track. Pass mark: 80%.

Curriculum & Assessment · Team Alpha Trading

Track A Exam — 0DTE Mastery

This is the Track A final exam for Alpha Academy Level 3. It tests what you learned in AA3-01 through AA3-05: the 0DTE arena, 0DTE structures, timing and the session map, the risk commandments, and the 0DTE playbook.

There are 30 multiple-choice questions. Each question has four options, A through D, and exactly one correct answer. Some questions ask you to work out dollar amounts. Do the math on paper before you choose — on a real 0DTE trade, the math is the trade.

Pass mark: 80%. That means at least 24 of 30 correct. If you score below 24, your answer key tells you exactly which module to re-study for each miss. Re-study, then take the exam again.

Take it closed book, in one sitting, with no phone. Treat it like a trading session: no rushing, no guessing your way out of a bad position.

> **NOTE**
> This exam is education only, not financial advice. Passing it does not make 0DTE trading safe. It only proves you understand the arena, the structures, and the risk rules before you risk a dollar in it.

The Questions

1. What does 0DTE mean?

- A) An option with zero days of time value left at any point in its life
- B) An option that expires on the same trading day you are trading it
- C) An option contract that costs nothing to buy
- D) An option that can only be traded in the first hour of the day

2. How does time decay (theta) behave on the day an option expires?

- A) It slows down, because there is almost no time value left to lose
- B) It stays flat and predictable all day long
- C) It accelerates sharply, and a bought option can melt toward zero even if the underlying barely moves
- D) It only matters for sellers, never for buyers

3. Why do 0DTE premiums swing so violently in the final hours?

- A) Gamma is at its highest near expiration, so a small move in the underlying causes a large, fast change in the option's price sensitivity and price
- B) Brokers widen every quote on purpose near the close
- C) The exchanges add a surcharge that moves prices
- D) Market makers stop quoting, so prices jump randomly

4. Which statement about SPX index options is correct?

- A) They settle in shares of the S&P 500 stocks
- B) They are American-style and can be assigned early
- C) They give the holder shares if held to expiration

- D) They are cash-settled and European-style, so there is no early assignment

5. Which statement about SPY options is correct?

- A) They are cash-settled like SPX options
- B) They are American-style, settle in shares, and early assignment is a real risk for option sellers
- C) They can never be assigned before expiration
- D) They expire worthless every day no matter what the price does

6. You buy a 0DTE call for $1.50. The underlying stalls and drifts slightly against you. What is the worst realistic outcome by the close?

- A) The entire $150 per contract is lost — a bought 0DTE option can lose 100% of its premium in minutes
- B) You can only lose half the premium, because expiration protects buyers
- C) You lose nothing, because a stalled market returns your premium
- D) Your loss is capped at the bid-ask spread

7. What is the maximum loss on a credit spread?

- A) The credit received
- B) Unlimited, like selling a naked option
- C) The width of the spread minus the credit received, times 100 per spread
- D) The width of the spread plus the credit received, times 100 per spread

8. You sell one 5-point-wide credit spread and collect $1.20 in credit. What is your maximum loss on that one spread?

- A) $120
- B) $500
- C) $620
- D) $380

9. On that same trade — one 5-point-wide credit spread sold for $1.20 — what is your maximum profit?

- A) $120, the credit you collected, if the spread expires worthless
- B) $380, if the underlying moves far enough
- C) $500, the full width of the spread
- D) There is no maximum; profit grows with the move

10. You buy one debit spread for $1.60. What is your maximum loss?

- A) $500, the width, no matter what you paid
- B) $160 — a debit spread can never lose more than the debit you paid
- C) $340, the width minus the debit
- D) Unlimited if the underlying gaps

11. That debit spread is 5 points wide and you paid $1.60. What is your maximum profit?

- A) $160
- B) $500

- C) $340 — the width minus the debit
- D) $660 — the width plus the debit

12. You sell an iron condor and collect a total credit of $2.00 per condor. What is your maximum profit on one condor?

- A) $300
- B) $500
- C) Unlimited if the market stays quiet for weeks
- D) $200 — the credit received, if the underlying stays between the short strikes and everything expires worthless

13. That iron condor has 5-point-wide wings on each side and you collected $2.00. What is your maximum loss on one condor?

- A) $300 — the wing width minus the credit, times 100
- B) $200 — the credit is all you can lose
- C) $500 — the full wing width
- D) $700 — the wing width plus the credit, times 100

14. You buy a 0DTE put with a 5,900 strike for $12.00. What is your breakeven at expiration?

- A) 5,912 — the strike plus the premium
- B) 5,888 — the strike minus the premium
- C) 5,900 — the strike itself
- D) 5,876 — the strike minus twice the premium

15. Why do traders treat the 8:30 AM ET data releases (such as CPI and the jobs report) as a special danger zone for 0DTE positions?

- A) Volume is lowest then, so nothing can happen
- B) Options cannot be traded until 9:30, so the risk is only theoretical
- C) A surprise number can spike the index dozens of points in minutes, and a same-day option on the wrong side can be destroyed before there is time to react
- D) The releases only affect bonds, never index options

16. At what time ET does the Federal Reserve typically release its FOMC statement on a meeting day?

- A) 8:30 AM
- B) 9:30 AM, at the open
- C) 12:00 PM, at midday
- D) 2:00 PM

17. What usually defines the midday dead zone for 0DTE trading?

- A) Volume dries up, the index chops sideways in a narrow range, and time decay quietly bleeds bought premium — often the best trade is no trade
- B) The biggest directional moves of the day happen there
- C) Spreads tighten to zero and options become risk-free

- D) Gamma disappears, so premiums stop moving

18. What makes the final hour of a 0DTE session uniquely dangerous?

- A) The exchanges stop accepting closing orders
- B) Gamma peaks and premiums can double or vanish on small moves, and price can pin near a heavily traded strike into the close, trapping anyone still holding and hoping
- C) Theta stops working, so losing positions recover on their own
- D) Only institutional traders are allowed to trade it

19. The market is chopping in a 10-point range, it is 12:30 PM, you have no setup from your plan, and you feel the urge to "do something." What does the playbook say?

- A) Buy something cheap — cheap premium is always worth a shot
- B) Double your size so a small move still pays
- C) Sell an undefined-risk spread to collect the decay
- D) Sit out. No edge means no trade; most of the 0DTE day is waiting, and forcing trades in the dead zone is how premium buyers bleed out

20. How should the daily maximum loss for a 0DTE trader be set?

- A) It is whatever loss makes you stop emotionally
- B) You decide it after the second losing trade, based on how the day feels
- C) As a fixed dollar amount written down before the open — and when the account hits it, trading is over for the day, no exceptions
- D) As a percentage of whatever you made yesterday

21. One of the 0DTE risk commandments covers averaging down. What does it say?

- A) Never add to a losing expiring contract — it is a melting asset with hours to live, not an investment that deserves more capital
- B) Averaging down is fine if the premium got 50% cheaper
- C) Add once, but only in the final hour
- D) Averaging down works because expiration forces a bounce

22. What is a hard exit time in a 0DTE plan?

- A) The time your broker picks to close your positions
- B) A time you set in advance — a position still open at that time gets closed at the market, not held on hope into the most violent part of the day
- C) The moment a trade reaches breakeven
- D) 4:00 PM exactly, for every trader and every trade

23. How should a 0DTE trader size a credit or debit spread position?

- A) By how much premium they want to collect
- B) By how many contracts the account balance can technically afford
- C) By the premium price alone — cheaper is always safer
- D) By the maximum loss in dollars: contracts = the dollars you are willing to risk divided by the max loss per spread

24. You hit your daily maximum loss at 11:00 AM. A setup you like appears at 11:20. What do the commandments say?

- A) Take it — the daily cap resets when a good setup appears
- B) Take it at half size, since the setup is high quality
- C) You are done for the day. The cap exists precisely for this moment; trading past it is revenge trading, and the platform stays closed
- D) Switch to a different index product and keep trading there

25. Why do the commandments demand a smaller per-trade risk and a cap on the number of trades for 0DTE, compared with slower trading?

- A) Because trades come faster, decay punishes hesitation, and ten small emotional decisions in one morning can compound into a day that breaks the account — small size and a trade cap keep any single day survivable
- B) Because brokers charge more per 0DTE trade
- C) Because the exchange limits how much profit one trader can make per day
- D) Because 0DTE options are cheaper, so the risk is automatically the same

26. Which list belongs in a complete 0DTE pre-market prep?

- A) Yesterday's P&L and a prediction for today's close
- B) Today's catalysts and their release times, the expected move, key levels from the prior session, and your daily maximum loss written down
- C) A watchlist of twenty tickers and their earnings dates
- D) Social media sentiment and the most popular trade in the chat room

27. What must be true before you enter any 0DTE trade, according to the playbook?

- A) Another trader in the community has confirmed the idea
- B) The premium has already started moving in your direction
- C) You feel confident about the direction of the next hour
- D) The structure is chosen, the maximum loss is known in dollars, and the exit rules — profit target, stop, and time stop — are set before entry, not invented during the trade

28. Which set of exit rules matches the playbook's way of managing a 0DTE position?

- A) Hold every trade to expiration and let the outcome decide
- B) Exit only when the premium reaches zero or doubles — nothing in between
- C) Pre-set exits: scale out at defined profit levels, stop out on a premium-percentage loss or an underlying level, and close by your time stop — decided calmly in advance, executed without renegotiation
- D) Decide exits after lunch, once you see how the day feels

29. Which fields belong in a 0DTE trade journal entry?

- A) The structure traded, entry and exit times, the maximum loss you allowed, and whether you followed your rules — yes or no
- B) Only the profit or loss in dollars

- C) The name of the trader you copied the idea from
- D) A screenshot of the chart and nothing else

30. In the playbook's model day, the trader refuses a tempting setup in the midday chop and ends the day flat by the close. Why was refusing the trade correct?

- A) Midday trades are against exchange rules for retail traders
- B) The setup was outside the written plan and inside the dead zone where decay works against the buyer — the win was protecting the morning's result and the account, and there is always another session tomorrow
- C) The trader was out of buying power
- D) Refusing trades is always correct, in every session and every condition

Scoring Yourself

Count your correct answers using the separate answer key. 24 or more correct (80%) is a pass. Below 24, the key points you to the exact module behind every miss — re-study those modules, redo their Check Yourself questions, and retake this exam before you trade 0DTE with real money.

> **RULE**
> In 0DTE, the exam is easy and the market is not. The point of passing is not the score — it is proving the risk rules are in your head before the day they have to save your account.



CU-06

TRACK A ANSWER KEY

Answers explained, with the re-study map.

Curriculum & Assessment · Team Alpha Trading

Track A Exam — Answer Key

This is the answer key for the Track A Exam — 0DTE Mastery (AA3-01 through AA3-05). Keep it separate from the exam. Grade honestly: in 0DTE, a grade you fudge becomes a loss you pay for.

Pass mark: 80% — at least 24 of 30 correct. For every miss, the key names the module to re-study. Work through that module again, redo its Check Yourself questions, and retake the exam before trading 0DTE with real money.

The Answers

1. B — 0DTE stands for zero days to expiration: the option expires the same trading day you trade it. (Re-study: AA3-01)

2. C — On expiration day theta accelerates violently, so a bought option can melt toward zero even when the underlying barely moves. (Re-study: AA3-01)

3. A — Gamma peaks near expiration, so small underlying moves produce large, fast swings in a 0DTE option's delta and price. (Re-study: AA3-01)

4. D — SPX options are cash-settled and European-style, which means no shares change hands and there is no early assignment. (Re-study: AA3-01)

5. B — SPY options are American-style and settle in shares, so sellers face real early-assignment risk. (Re-study: AA3-01)

6. A — A bought option's maximum loss is the full premium: $1.50 × 100 = $150 per contract, and a 0DTE can lose all of it in minutes. (Re-study: AA3-01)

7. C — Credit spread max loss = width − credit received, times the 100-share multiplier per spread. (Re-study: AA3-02)

8. D — ($5.00 − $1.20) × 100 = $3.80 × 100 = $380 maximum loss on one spread. (Re-study: AA3-02)

9. A — A credit spread's maximum profit is the credit kept if it expires worthless: $1.20 × 100 = $120. (Re-study: AA3-02)

10. B — A debit spread can never lose more than the debit paid: $1.60 × 100 = $160. (Re-study: AA3-02)

11. C — Debit spread max profit = width − debit: ($5.00 − $1.60) × 100 = $340. (Re-study: AA3-02)

12. D — An iron condor's maximum profit is the total credit received if price stays between the short strikes: $2.00 × 100 = $200. (Re-study: AA3-02)

13. A — Iron condor max loss = wing width − credit: ($5.00 − $2.00) × 100 = $300 on one condor. (Re-study: AA3-02)

14. B — A put's breakeven is strike − premium: 5,900 − 12.00 = 5,888. (Re-study: AA3-02)

15. C — An 8:30 AM ET surprise on CPI or jobs can spike the index dozens of points in minutes, and a same-day option has no time to recover. (Re-study: AA3-03)

16. D — The FOMC statement is released at 2:00 PM ET on meeting days. (Re-study: AA3-03)

17. A — The midday dead zone is typically low-volume sideways chop where decay bleeds bought premium, so no trade is often the best trade. (Re-study: AA3-03)

18. B — In the final hour gamma is at its peak and price can pin near a big strike, so holding and hoping into the close is the most dangerous seat in the arena. (Re-study: AA3-03)

19. D — The playbook's sit-out rule: no edge means no trade, and forcing trades in the dead zone is exactly how premium buyers bleed out. (Re-study: AA3-03)

20. C — The daily maximum loss is a fixed dollar amount written down before the open, and hitting it ends the trading day with no exceptions. (Re-study: AA3-04)

21. A — Never average down an expiring contract: it is a melting asset, and adding capital to it turns one planned loss into an unplanned one. (Re-study: AA3-04)

22. B — A hard exit time is set in advance, and any position still open at that time is closed — not renegotiated in the most violent part of the day. (Re-study: AA3-04)

23. D — Size spreads by maximum loss: contracts = dollars you are willing to risk ÷ max loss per spread, never by how many contracts you can afford. (Re-study: AA3-04)

24. C — Once the daily cap is hit, you are done; trading past it for a "good setup" is revenge trading, which is what the cap exists to prevent. (Re-study: AA3-04)

25. A — 0DTE trades come fast and decay punishes hesitation, so smaller per-trade risk plus a trade-count cap keeps any single day survivable. (Re-study: AA3-04)

26. B — Pre-market prep covers the day's catalysts and release times, the expected move, prior-session key levels, and the daily maximum loss in writing. (Re-study: AA3-05)

27. D — Before entry the structure is chosen, the maximum loss is known in dollars, and profit, stop, and time-stop exits are already set — never invented mid-trade. (Re-study: AA3-05)

28. C — The playbook manages positions with pre-set exits: scale at defined profit levels, stop on a premium-percentage or underlying level, and honor the time stop. (Re-study: AA3-05)

29. A — A 0DTE journal entry records the structure, entry and exit times, the maximum loss allowed, and a yes-or-no on whether the rules were followed. (Re-study: AA3-05)

30. B — Refusing an unplanned dead-zone setup protected the day's result; discipline about when not to trade is a core 0DTE skill, and tomorrow always offers another session. (Re-study: AA3-05)

What Your Score Means

- **24–30 correct — Pass.** You understand the arena, the structures, and the doctrine. Paper trade the track for at least a month before any real 0DTE size.
- **18–23 correct — Not yet.** Your misses cluster somewhere; use the module codes above, re-study those modules, and retake the exam.
- **Below 18 — Restart the track.** The math or the risk rules are not in place yet. That is fixable with study, and far cheaper than learning it from the market.

> **RULE**
> The answer key grades your knowledge. The market grades your discipline. Pass this exam, then go prove the second one on paper — never the other way around.



AA3-06

THE FUTURES SETUP

Day margin, honest leverage math, choosing your instrument, starting on micros.

Alpha Academy Level 3 · Team Alpha Trading

The Futures Day Trader's Setup

This module opens the Futures Day Trading track. You already know what a futures contract is, how ticks and points work, and how margin functions — Level 1 built that base, and Level 2 took you inside the futures order book with the DOM and footprint charts. Here we assemble all of it into a working day trader's setup: the right account rules, the right instrument, the right size, the right hours, and the right protective habits — before a single trade is placed.

Day trading means opening and closing a position inside the same trading day, so nothing is held overnight. The futures arena differs from the stock arena in ways that change everything about risk, so this module treats setup — not entries — as the skill. Your entry method is yours to bring. What follows works underneath any method.

> **NOTE**
> This is education, not financial advice. Day trading futures is one of the fastest legal ways to lose money ever invented, and most people who try it lose. The leverage in this arena is real in both directions. Learn the setup cold, start on micros or in a simulator, and never trade money you cannot afford to lose.

Why Traders Day-Trade Futures

Four structural features pull day traders toward futures and away from stocks. None of them is an edge by itself — an **edge** is any advantage that makes your results better than random over many trades — but together they make futures the cleanest arena for short-term trading.

One instrument instead of thousands. The ES contract tracks the entire S&P 500 — 500 of the largest U.S. companies — in a single product. A stock day trader scans thousands of tickers hunting for one that is moving today. A futures day trader can spend years learning the personality of a single market: how it behaves at the open, how it reacts to economic reports, how it tends to move in the last hour. Depth of knowledge about one thing beats shallow knowledge of everything.

Deep liquidity. Liquidity means how easily you can buy or sell without moving the price — lots of other traders, standing ready on both sides, in large size. The major futures contracts are among the most liquid products on Earth. Practically, that means the **spread** — the small gap between the price buyers offer and the price sellers ask — is usually a single tick on the ES during busy hours, and your orders fill at or near the price you see. In liquid futures, that friction is about as low as markets offer.

Nearly around-the-clock hours. CME futures trade from Sunday 6 PM to Friday 5 PM Eastern Time, with one daily pause (covered below). A trader with a day job can trade the early morning or the evening. A trader who wants the busiest action can trade the regular stock-market hours. The market fits your schedule instead of the other way around.

No pattern-day-trader rule. This one matters most to small accounts, so hear it plainly: **futures are not subject to the stock market's pattern-day-trader rule.** The $25,000 minimum-equity requirement that restricts frequent day trading in stock margin accounts simply does not apply to futures accounts. Futures have their own system — margin deposits, defined below — and under that system a small account may day-trade as often as its plan allows. Small does not mean safe, as the leverage math in a moment will show, but the regulatory wall that stops small stock accounts does not exist here.

Margin: The Day Session vs. Overnight

From Level 1 you know that futures **margin** is not a loan. It is a good-faith deposit — money you post with your broker as security that you can cover your losses, while you control a contract worth far more than the deposit. What is new at this level is that there are **two different margins**, and a day trader lives under both.

Overnight margin (also called initial margin) is set by the exchange — for most of these contracts, the CME. It is the deposit required to hold a position through the close and overnight, when the market can move for hours while you sleep. It is the larger of the two numbers.

Day margin (also called intraday margin) is set by your **broker**, not the exchange. It is the reduced deposit required only while a position is opened and closed inside the same day. Because the broker's exposure lasts hours instead of overnight, brokers set day margins **far below** the overnight exchange margin — sometimes dramatically below.

Three facts about day margin that beginners get wrong:

- **There is no universal dollar figure.** Every broker sets its own day margins, and two brokers can post very different numbers for the same contract. Anyone quoting you one fixed day-margin price for "the ES" as if it were a law of nature is wrong. Your broker publishes its day margins — check them before you trade, and check them again before big report days.
- **It can change without much warning.** On volatile days — a major inflation report, a central bank decision, a market in freefall — brokers can and do raise day margins, sometimes to the full overnight level. A position sized to a quiet-day margin can suddenly require much more money, and if your account cannot cover the new requirement, the broker can close your position for you.
- **Low margin is not a discount.** A small deposit controlling a huge contract is leverage, and leverage does not care whether it works for you or against you. The next section does that math in full.

> **TIP**
> Before your first live session, find your broker's published day-margin table and its policy on raising margins around major economic releases. Screenshot it. The time to learn the number is before you are in a trade, not during one.

The Leverage Math, in Full

Here is the illustration to memorize, because every risk decision in this arena flows from it.

One ES contract, with the S&P 500 at 6,000:

- **Notional value** — the total value of what the contract controls — is 6,000 × $50 per point = **$300,000** of index exposure.
- You control that $300,000 exposure with a margin deposit of only a few thousand dollars.
- A **1% index move** is 60 points (1% of 6,000). 60 points × $50 = **$3,000 per contract** — gained or lost — on a move so ordinary it happens on a regular basis, sometimes before lunch.

Now scale that down to the small print of a normal trade. Ten ES points — a modest intraday wiggle — is 10 × $50 = **$500 per contract**. Four ticks, which is just one point, is $50. There is no such thing as a "small" ES move in dollar terms for a small account.

Compare the micro version of the same market. One MES contract is worth $5 per point, exactly one-tenth of the ES. The same 1% move is 60 × $5 = **$300**, and a 10-point wiggle is **$50**. Same market, same chart,

same hours — one-tenth the dollars. Hold that comparison; it becomes the sizing rule for this whole track.

> **RISK**
> Leverage math runs identically in reverse. If a few thousand dollars of margin controls $300,000 of exposure, then a bad hour can lose several times your deposit's "comfort zone" before you have finished your coffee. The deposit is not your max loss. Your stop — and your size — are your max loss, and only if you honor them.

Choosing Your Instrument

Each major futures market has a personality: its own speed, range, and set of forces that move it. Day traders pick one home market and learn it deeply. These are the four most common starting arenas.

Instrument	What It Tracks	Value Per Point	Personality
ES (E-mini S&P 500)	The 500 largest U.S. companies	$50	The deepest and smoothest of the group; the default home market for most day traders
NQ (E-mini Nasdaq-100)	100 big non-financial companies, tech-heavy	$20	Faster and swingier than the ES; bigger moves in both directions, demands wider stops
GC (Gold)	One troy ounce price × 100 ounces	$100	Moves on fear, interest rates, and the dollar; can be quiet for hours, then jump hard on news
CL (Crude Oil)	1,000 barrels of crude oil	$1,000 per $1.00 move	The wild one — priced in cents ($0.01 = $10 per contract), famous for violent moves around oil inventory reports and energy news

A few translations so the table's numbers are real to you. Gold at $100 per point means a $10 move in the gold price is 10 points — **$1,000 per GC contract**. Crude oil moving $0.50 — fifty cents, an everyday event — is **$500 per CL contract**. And the ES minimum tick of 0.25 points is worth $12.50, so even the smallest possible price change has a real dollar attached.

Choose on personality fit, not excitement. If your plan uses tight stops, the NQ's wide swings will stop you out constantly and the ES will suit you better. Boring consistency in one market beats tourism across four.

Why Beginners Start on Micros

CME built **micro contracts** — one-tenth-size versions of the majors — and for a developing day trader they are the single most important product design in this arena. The micro specs:

Micro Contract	Full-Size Partner	Value Per Point	Value Per Tick
MES	ES	$5	$1.25 (tick = 0.25)
MNQ	NQ	$2	$0.50 (tick = 0.25)
MGC	GC	$10	$1.00 (tick = 0.10)
MCL	CL	$100	$1.00 (tick = $0.01)

Micros trade on the same exchange, on the same prices, with the same hours and the same mechanics as their full-size partners. The chart is identical. The fills are real. Only the dollars shrink.

Run one setup through both sizes to feel why this matters. Your plan says: buy at 6,000, stop at 5,988 — a 12-point stop — target 24 points up.

- **On 1 ES:** risk is 12 × $50 = **$600**. Target profit is 24 × $50 = $1,200.
- **On 1 MES:** risk is 12 × $5 = **$60**. Target profit is 24 × $5 = $120.
- **On 1 MNQ** (if your market were the Nasdaq): the same 12-point stop risks 12 × $2 = **$24**.

If your account is $3,000 and your risk rule is 1% per trade — $30 — then the ES trade above is not a trade you are allowed to take at all, and even one MES is double your limit. The micro is not a toy version of the market; it is the version of the market sized so a beginner's risk rules can actually be obeyed. A trader who cannot follow their risk plan because the smallest contract is too big does not have a discipline problem — they have an instrument problem.

Graduation to full-size contracts is earned with evidence: a journal of many trades, executed to plan, at micro size, over weeks — not one good day and a feeling.

Sessions and Platform Basics

Globex is the CME's electronic trading platform, and its name is also used for the nearly-24-hour session it runs. The futures week opens **Sunday at 6:00 PM ET** and closes **Friday at 5:00 PM ET**. Within each day there is a one-hour halt: trading pauses from **5:00 PM to 6:00 PM ET**, maintenance and settlement happen, and then a new trading day begins at 6 PM. If you ever see futures quotes frozen in the late afternoon, that is the daily halt — it is normal, scheduled, and on the clock every single day.

Inside that long Globex week sits the **regular trading hours** for equity index futures: **9:30 AM to 4:00 PM ET**, matching the stock market. That window — plus the hour or so around it — is when the ES and NQ are at their deepest and fastest, because the entire U.S. stock market is open underneath them. The overnight and early-morning hours are real markets with real moves, especially around European news and pre-market earnings, but they are **thinner**: fewer traders, wider spreads, and sharper sudden spikes when a large order hits a quiet book. Most day traders in this arena do the bulk of their trading in or near regular hours and treat the thin hours with extra caution, smaller size, or not at all.

On the platform itself, four pieces of kit separate a prepared setup from a gamble:

- **The front-month contract.** Futures expire. The **front month** is the contract closest to expiration that carries the heavy volume, and it is the one to trade. As expiration approaches, volume rolls to the next month — this is the **roll** — and your platform's default symbol usually follows it. Check which month you are actually trading, every week.

- **Bracket orders.** A **bracket order** attaches your exit orders to your entry the moment you get filled: a stop-loss below and a profit target above (for a long trade), submitted as one package. If your stop is part of the bracket, it exists even if your power dies, your internet drops, or you freeze. Decide the stop before entry; let the bracket enforce it.
- **Live data.** Futures quotes in real time usually require an exchange data subscription through your broker. Delayed data has no place in day trading — confirm your feed is live before your first session.
- **A simulator that mirrors your real platform.** Every serious futures broker offers a paper-trading mode with the same screens and order types. Reps there cost nothing. Reps live cost tuition.

Putting Your Setup Together

A complete futures day trader's setup, on one page:

- **Account:** a futures-enabled brokerage account, funded only with risk money, with your broker's day margins and margin-raise policy read and saved.
- **Instrument:** ONE home market, traded on its micro contract until your journal proves you have earned the full-size version.
- **Session:** a fixed daily window — ideally inside or near regular hours — that you trade and then stop, rather than an all-day open tab.
- **Orders:** bracket orders on every trade, so the stop exists from the first second.
- **Risk rules, written down:** a fixed dollar risk per trade (a small percentage of the account), a **max daily loss** — a dollar line that ends your session the moment it is touched — and a rule for what happens after two or three losses in a row.
- **Records:** a journal entry for every trade, including the ones that embarrass you. Especially those.

Notice what is not on the list: more monitors, faster news, a busier chart. The setup that protects a futures day trader is boring, contractual, and decided in advance.

Common Mistakes at This Level

- **Trading the ES on a micro-sized account.** If one contract's normal wiggle can take 10–20% of your account, the instrument is wrong, no matter how good the trade looks. Size down to micros or do not trade.
- **Confusing low day margin with low risk.** The broker's small deposit is a business decision by the broker, not a safety feature for you. The contract still controls its full notional value.
- **Holding a "day trade" overnight by accident or by hope.** The moment a day trade crosses into overnight, overnight margin applies, the account may not meet it, and gap risk enters a plan that never priced it. Day trades end the day — flat.
- **Trading the thin hours like the regular hours.** Overnight spreads are wider and spikes are sharper. Same size plus a thinner book equals a different, worse trade.
- **Ignoring the 5–6 PM halt.** Orders, stops, and fills behave differently around a scheduled pause. Know where it sits relative to your session.
- **Letting a margin raise find you mid-trade.** Brokers raise day margins on volatile days. If your account is running with no cushion above the minimum, a routine policy change can force your broker to close you out at the worst moment.

- **Skipping the roll.** Trading a dying contract in its final days means thinning volume and strange behavior. Trade the front month.
- **Having no max daily loss.** Without a hard session stop, one emotional hour can erase a month of careful micro trading — and the leverage math above shows exactly how fast.

Chapter Summary

- Futures attract day traders for structural reasons: one instrument tracking a whole index, deep liquidity, nearly 24-hour access, and **no pattern-day-trader rule** — futures accounts are not subject to the stock PDT requirement.
- **Overnight margin** is set by the exchange; **day margin** is set by the broker, is far lower, varies by broker, and can be raised on volatile days. There is no universal day-margin figure — read your broker's published numbers.
- Margin is a good-faith deposit, not a loan, and it is not your max loss. One ES contract at 6,000 controls **$300,000** of exposure; a 1% move is 60 points = **$3,000 per contract**.
- Each market has a personality: ES is deep and smooth at $50/point, NQ is faster at $20/point, gold moves on fear and rates at $100/point, and crude oil is the wildest at $1,000 per $1.00 move.
- **Micros** (MES $5, MNQ $2, MGC $10, MCL $100 per point) are the same markets at one-tenth size — the correct starting size for beginners, because they let real risk rules actually be obeyed.
- The CME week runs Sunday 6 PM to Friday 5 PM ET on Globex, with a daily halt from 5–6 PM ET; equity index futures are deepest during regular hours, 9:30 AM–4:00 PM ET.
- A complete setup is contractual, not technical: futures account, one home market at micro size, a fixed session window, bracket orders on every trade, written risk rules with a max daily loss, and a journal.

Check Yourself

1. Why can a small futures account day-trade freely when a small stock margin account cannot?
2. One ES contract trades with the index at 6,000. What is its notional value, and what does a 1% move pay or cost per contract?
3. Who sets overnight margin, who sets day margin, and which is lower — and what can happen to day margin on a volatile day?
4. Your stop is 12 points away. What do you risk on 1 ES, 1 MES, and 1 MNQ?
5. When does the CME futures week open and close, and what happens every day between 5:00 and 6:00 PM ET?

Answers: 1) Futures are not subject to the stock pattern-day-trader rule — the $25,000 minimum-equity requirement for frequent stock day trading does not apply to futures accounts, which run on margin deposits instead. 2) Notional value is 6,000 × $50 = $300,000. A 1% move is 60 points, worth 60 × $50 = $3,000 per contract, gained or lost. 3) The exchange sets overnight margin; your broker sets day margin, and day margin is far lower. On volatile days the broker can raise day margin — possibly to the full overnight level — and can close positions that no longer meet it. 4) 1 ES: 12 × $50 = $600. 1 MES: 12 × $5 = $60. 1 MNQ: 12 × $2 = $24. 5) The week opens Sunday 6:00 PM ET and closes Friday 5:00 PM ET. Every day, trading halts from 5:00 PM to 6:00 PM ET for maintenance and settlement, then a new trading day begins.

> **RISK**
> In this arena, the setup is the strategy's bodyguard. One ES contract controls $300,000 — size, stops, session, and margin cushion are decided before the trade, or the market decides them for you, at its prices, in its worst minutes.



AA3-07

FUTURES
TRADING THE OPEN

Overnight inventory, the opening range, and the three open types.

Alpha Academy Level 3 · Team Alpha Trading

Futures: Trading the Open

The stock market rings its opening bell at 9:30 AM Eastern Time. Futures do not wait for that bell. By the time stocks open, futures have already been trading all night and all morning. If you trade futures at the open without knowing what happened overnight, you are walking into a movie forty minutes late and betting money on how it ends.

This module teaches you to trade the most active — and most dangerous — hour of the futures day: the first hour after the stock market opens. It is for students who finished Level 1 and Level 2, so you already know what a futures contract is, what a tick is worth, and how margin works. Here you will learn what **overnight inventory** is, which levels frame the day, how to mark and use the **opening range**, how to read the three basic ways a day can open, and how to size and pace yourself through the first hour.

> **RISK**
> The open is when the most money changes hands and when prices move the fastest. It is also when beginners lose money the fastest. Everything in this module is about slowing yourself down while the market speeds up. Nothing here guarantees a profit — most day traders lose money, and the first hour is a big reason why.

What Happened While You Slept: Overnight Inventory

Stock exchanges in the United States are open from 9:30 AM to 4:00 PM Eastern. Futures are different. The main futures exchange group, **CME** (the Chicago Mercantile Exchange), runs an electronic market called **Globex** that trades almost around the clock: from 6:00 PM Eastern on Sunday through 5:00 PM Eastern on Friday, with a daily break from 5:00 PM to 6:00 PM. While you were sleeping, traders in Asia and Europe were buying and selling the same contracts you trade.

That overnight trading moves price. The gap between yesterday's close and today's open is not empty space — futures filled it in, hour by hour. When a big story breaks at 3:00 AM, or a foreign market drops hard, futures react immediately. By 9:30 AM, price has often already made a major move. That is why stocks so often "gap" up or down at the open: they are catching up to where futures have traded for hours.

Traders describe the overnight session's leftovers with a simple idea: **overnight inventory** — who is holding what when the bell rings. If buyers pushed price higher all night, a crowd of overnight buyers sits on contracts bought at lower prices: they are "long inventory." Those holders behave predictably:

- If price keeps rising after the open, overnight buyers feel smart and hold on, sometimes adding more.
- If price falls back, those same buyers rush to sell and protect their profit — and their selling can push price down faster.
- If sellers pushed price lower all night, the mirror image applies: overnight sellers are "short inventory," and a rising price can force them to buy back in a hurry.

You cannot see anyone's actual positions. Overnight inventory is a way of thinking, not a number on a screen. But the overnight price action is real and visible on your chart, and it leaves behind the two most important reference points of the morning: the **overnight high** (the highest price traded during the overnight session) and the **overnight low** (the lowest). Together they tell you where buyers won, where sellers won, and how far price traveled while the stock market was dark.

One caution: the overnight session usually trades far fewer contracts than the day session. Thin markets can move a long way on a small amount of trading, so an overnight extreme made on light volume is a weaker landmark than the same price made during the busy day. Note it, respect it, but know how it was made.

The Levels That Frame the Day

Before the bell, a prepared trader marks a small set of prices on the chart. These levels frame the day — where the last session's battles ended and where the night shift stopped. You need only a handful:

Level	What it is	Why traders watch it
Overnight high	Highest price traded on Globex since the evening reopen	The top of the night's range; above it, overnight sellers are proven wrong
Overnight low	Lowest price traded on Globex since the evening reopen	The bottom of the night's range; below it, overnight buyers are proven wrong
Prior day high	Highest price of yesterday's regular session	A line the whole market remembers from the last full battle
Prior day low	Lowest price of yesterday's regular session	Same idea, on the downside
Prior day close	The final price of yesterday's regular session	The market's last agreed "fair" price before the night began
Opening print	The first trades at 9:30 AM	Where the day session actually begins — the gap, if any, is measured from the prior close to here

A **gap** is the distance between yesterday's close and today's open, when the two prices differ. A gap up means the market opens above yesterday's close; a gap down, below it. Gaps are simply the visible result of overnight trading — not magic signals. A gap tells you overnight traders repriced the market; it does not tell you whether the daytime crowd will agree. Some gaps keep running all day. Others get "filled," meaning price travels back to yesterday's close. Both happen often enough that neither is a rule.

> **TIP**
> Mark your levels before 9:30 AM, while you are calm. Five lines drawn in advance will do more for your first hour than any indicator you can add during it.

The Opening Range: A Map, Not a Crystal Ball

Once the bell rings, the first job is not trading. The first job is watching price draw its first box of the day.

The **opening range** is simply the highest and lowest prices traded during the first minutes of the regular session. Traders use different lengths: the first **15 minutes** (9:30–9:45), the first **30 minutes** (9:30–10:00), or the full first **60 minutes** (9:30–10:30). Shorter ranges form faster and break more often; longer ranges

take time and tend to mean more when they break. There is no single correct length — pick one, mark it the same way every day, and learn its behavior.

Use the opening range honestly, as a **map**:

- **Inside the range, the market is undecided.** Price bouncing between the opening high and low is a market arguing with itself. Beginners who trade every bounce inside the box usually pay commissions and spreads to go nowhere.
- **The range shows you where decisions happen.** A move that pushes above the opening range high and stays there tells you buyers won the first argument. A fall below the range low that holds tells you sellers did. A push out that quickly snaps back inside tells you the push failed — also useful information.
- **The range gives your risk a home.** If you trade after the range forms, your stop can sit at a logical place — the other side of the range, or the middle — instead of at a random dollar amount.

What the opening range is **not**: a prediction machine. It does not tell you where price will close, and it does not behave the same way every day. It is a framework for organizing the first hour — where price has been, where the fight is, and where you are wrong if you take a side. Treat any tool promising more than that with suspicion.

> **NOTE**
> Mark the range by the clock, not by feel. "The first 30 minutes" means 9:30 to 10:00 Eastern, every day, exciting or dull. Consistency is what turns a box on a chart into data you can learn from.

Three Ways a Day Can Open

Every open is unique, but most mornings rhyme with one of three patterns. Naming them in real time helps you match your expectations — and your size — to the kind of day forming in front of you.

1. The drive open

Price moves strongly one way starting right at the bell, with little or no pullback. Buyers (or sellers) are in a hurry and are not negotiating. A drive open often follows major news or a big overnight move the day session decides to continue. What it suggests: the day may trend in the drive's direction for hours. What it demands from you: discipline. The correct trade was early — by the time the drive is obvious, chasing it means entering exactly where early traders are taking profit.

2. The test-and-reverse open

Price pushes one way first — often toward or through an overnight level or the prior day's high or low — then fails, and reverses back through the open. The first move was a test: the market checked whether anyone wanted to trade out there, found no follow-through, and came back. What it suggests: the extremes are being rejected, and the day may rotate back across the range or trend the other way. What it demands from you: patience. The traders who bought the first push are now trapped, and their exits fuel the reversal — but reversals also fail, so the confirming sign is price returning through the opening print and holding on the other side.

3. The balanced open

Price chops sideways in a narrow band, crossing the opening price again and again. Neither side is in a hurry — often the follow-up to a quiet overnight session with no news. What it suggests: a rotational day, swinging between the morning's high and low until some catalyst breaks the balance. What it demands from you: small size or no trades at all. Balanced opens punish impatience; every wiggle looks like the start of a move, and most are not.

None of these labels is a guarantee. A drive can stall and become a balanced day by 11:00. A balanced open can explode at midday. The labels are a starting read, updated as evidence arrives — not a bet you place at 9:31 and defend all day.

The First-Hour Playbook

With the levels marked and the range forming, the first hour becomes a matter of process, not prediction.

Trade smaller while the range forms. Volatility — how fast and far price moves — peaks in the first minutes. A contract that drifts 2 points in a sleepy afternoon can jump 2 points in ninety seconds at the open. Many experienced traders start at half size or less until the opening range exists, then trade normally. Some simply skip the first 5–15 minutes. Sitting out the wildest minutes is a professional choice, not a missed opportunity.

Never chase the first spike. The opening spike — a vertical burst in the first minute or two — is usually a pile-up of orders that built overnight: market orders from the public, stop orders triggering, and fast traders all hitting at once. It frequently retraces within minutes, and buying its top tick is one of the most expensive habits in day trading. If a move is real, it will almost always offer a calmer second chance — a pullback, a retest, a pause. If it never does, you missed one trade. There will be thousands more.

Respect the 10:00 AM data. Several major economic reports are released at 10:00 AM Eastern — examples include consumer confidence and the ISM manufacturing and services surveys. These scheduled prints can reverse a quiet morning in seconds. The 8:30 AM releases (jobs and inflation data) strike before the open and shape the overnight story; the 10:00 AM ones strike mid-range, exactly when the opening range often completes. Know before the bell what is scheduled. Either be flat into a major release or consciously accept the test — never be surprised by a number printed on a public calendar.

Let the range finish before you judge the day. A workable rhythm: mark levels pre-open; observe the first 15 minutes with no trades; note which open type is forming; once your chosen range (30 or 60 minutes) completes, trade only when price acts decisively at its edges — accepts outside it or clearly rejects it. Inside the box, your job is to wait cheaply.

> **RISK**
> Day (intraday) futures margin is set by your broker, is far below overnight margin, and can be raised on volatile days — your broker publishes its day margins, so check them before you trade. Low margin is not low risk. One **ES** contract (the E-mini S&P 500 future) at an index level of 6,000 controls 6,000 × $50 = **$300,000 of index exposure**, and a routine 1% index move is 60 points — **$3,000 per contract**. Size with the micro contract (**MES**, $5 per point) until the first hour stops feeling like a storm.

A Worked ES Example

Let us walk one opening hour slowly, with the math in the open. The instrument is ES: each point is worth $50, and the minimum tick — the smallest price move — is 0.25 points, worth $12.50.

Before the open. Yesterday, ES closed at 5,980. Overnight, Globex traded between a high of 6,010 and a low of 5,970: buyers won the night, but nobody ran away with it. Your chart is marked with 6,010, 5,970, and yesterday's close at 5,980.

9:30 AM. ES opens at 6,002 — a gap up of 22 points. In the first minutes, price pushes to 6,012, above the overnight high, then stalls and falls back. By 10:00, the session low is 5,996. Your 30-minute opening range is 5,996 to 6,012.

Reading the open. The early push through the overnight high failed and price returned inside the night's range — this morning is behaving more like a test-and-reverse than a drive. You stay patient. At 10:00 a scheduled report lands, and over the next several minutes price slides through the range low at 5,996 and, importantly, holds below it instead of snapping back. Sellers have now won two arguments in a row.

The trade, sized for the first hour. Following your own method (whatever it is — this module teaches the arena, not a signal), you sell 1 ES contract at 5,994. Your stop sits above the failed area at 6,002: that is 8 points of risk, or 32 ticks. The math: 8 points × $50 = **$400 at risk**. You can check it in ticks too: 32 ticks × $12.50 = **$400**. Same answer, as it must be.

What happens. Price grinds down and reaches the overnight low at 5,970 — the level you marked before the bell. You exit there: 5,994 − 5,970 = 24 points gained. In ticks, 96 ticks × $12.50 = **$1,200**. In points, 24 × $50 = **$1,200**. The trade risked $400 to make $1,200 — a 3-to-1 result — and the exit sat at a level drawn before the open, not a price you hoped for mid-trade.

The honest footnote. This example worked. Many do not: the 10:00 slide could just as easily have snapped back above 6,002, stopping you out for the planned $400 loss. The lesson is not the $1,200 — it is that every number (entry, stop, target, size) was decided by levels and math that existed before emotion did.

Common Mistakes at This Level

- **Trading the first minute at full size.** The fastest, widest spreads of the day meet the least information of the day. That combination is for spectators.
- **Chasing the opening spike.** Entering a vertical move at its extreme means your stop is far away and your position starts underwater the moment the pile-up clears.
- **Ignoring the overnight session.** Treating 9:30 as the start of the world throws away the overnight high, the overnight low, and the whole story of who is holding inventory.
- **Trading every wiggle inside the opening range.** The middle of the box is where undecided markets churn accounts. Edge behavior is information; middle behavior is mostly noise.
- **Not knowing the 10:00 AM calendar.** Being "surprised" by a scheduled release is a preparation failure, not bad luck.
- **Reading an open type as a promise.** A drive can die and a balance can explode. Traders who defend their 9:35 opinion all day donate to traders who update theirs.
- **Using standard contracts to learn the open.** At $50 a point, a routine 8-point mistake costs $400 on ES. MES exists at $5 a point so the tuition is survivable.

- **Judging the process by one morning.** A correct wait can miss a move; a reckless chase can get paid. Grade the hour on whether you followed the plan.

Chapter Summary

- Futures trade nearly around the clock on CME Globex, so by the 9:30 AM open the market has already moved — the overnight session is the first chapter of every day.
- **Overnight inventory** describes who holds what at the bell: profitable overnight buyers defend or dump, squeezed overnight sellers buy back, and those reactions shape the open.
- Five levels frame the day — overnight high, overnight low, prior day high, prior day low, prior day close — plus the opening print, which measures any gap.
- The **opening range** (first 15, 30, or 60 minutes) is a map: inside it the market is undecided, its edges are where decisions happen, and it gives stops a logical home. It predicts nothing.
- Opens rhyme in three ways: the **drive** (one-way urgency), the **test-and-reverse** (a failed push that flips), and the **balanced** open (a sideways argument). Labels are updated reads, not promises.
- First-hour playbook: mark levels early, trade smaller (or not at all) while the range forms, never chase the first spike, and know what reports land at 10:00 AM ET.
- ES math is simple and unforgiving: $50 per point, $12.50 per tick, $300,000 of exposure per contract at 6,000. Learn the open on MES ($5 per point).

Check Yourself

1. What is overnight inventory, and why does it matter at the open?
2. Which five levels should be marked before the bell, and what does the opening print add?
3. A trader marks a 30-minute opening range. What does it mean when price stays inside it, and what do the range's edges tell her?
4. Describe the three basic open types and what each one suggests about the day.
5. You sell 1 ES contract at 5,994 with a stop at 6,002. How many points and ticks are you risking, and what is the dollar risk? If you exit at 5,970, what is the gain in dollars?

Answers: 1) Overnight inventory is a way of describing who holds what when the bell rings — traders who bought or sold during the overnight Globex session. It matters because those holders react predictably: overnight buyers sitting on profits may sell quickly if price falls back, and overnight sellers can be forced to buy back if price rises, and those reactions help drive the opening moves. 2) The overnight high, overnight low, prior day high, prior day low, and prior day close. The opening print shows where the day session actually begins, which reveals whether there is a gap from the prior close and how big it is. 3) Price staying inside the range means the market is undecided and chopping — mostly noise. The edges are where decisions happen: holding outside an edge shows one side won the first argument, while a push out that snaps back shows the move failed. 4) The drive open moves strongly one way from the bell with little pullback, suggesting a possible trend day. The test-and-reverse pushes one way, fails at a level, and comes back through the open, suggesting the extreme was rejected. The balanced open chops sideways across the opening price, suggesting a rotational day until a catalyst breaks it. 5) The stop is 8 points away, which is 32 ticks; 8 points × $50 (or 32 × $12.50) = $400 at risk. Exiting at 5,970 gains 24 points × $50 = $1,200.

> **RULE**
> The first hour belongs to the prepared: levels marked before the bell, size kept small while the range forms, and no trade at all until the market shows its hand.



AA3-08

TREND DAYS VS RANGE DAYS

Day-type recognition, VWAP, and the two playbooks that must never be swapped.

Alpha Academy Level 3 · Team Alpha Trading

Futures Playbook — Trend Days vs Range Days

You have reached the point in your futures education where one skill matters more than any single entry trick: **reading what kind of day you are in.** Every trading day on the index futures — ES, NQ, and their micro versions — tends to fall into one of two families. On a **range day** (also called a balance day), price chops back and forth inside a band, crossing and re-crossing the middle, going nowhere on balance. On a **trend day**, price picks a direction and travels, closing near its high or its low. This module teaches you to tell the two apart early, and gives you a simple playbook for each.

This module is for the Level 3 student: you already know what a futures contract is, what a tick is, how NQ pays $5 per tick and $20 per point, and why position size decides whether you survive. You do not need a new strategy to use this module — day-type reading sits on top of whatever method you trade, because it tells you which behavior the day is rewarding and which behavior it is punishing.

> **RISK**
> Here is the honest warning for this arena. The money in day trading concentrates in the minority of days that trend — and so does the damage. Nearly every catastrophic intraday loss comes from trading the wrong playbook for the day: fading strength on a trend day, or chasing breakouts on a range day. Most day traders lose money. Learning this one distinction will not make you profitable by itself, but refusing to learn it is a reliable way to stay unprofitable.

The Two Day Types, In Plain Words

Think of the market like weather. Most days are calm with passing clouds — price wanders, stalls, and wanders back. A minority of days are storms moving in one direction — price travels and keeps traveling. You do not dress the same for both, and you do not trade the same for both.

- **Range / balance day:** price moves up and down inside a fairly clear band. Moves toward the top of the band stall and reverse. Moves toward the bottom stall and reverse. The day often ends near where it spent most of its time — the middle.
- **Trend day:** price moves mostly one way. Rallies (moves up) on an uptrend day do not give back much; dips get bought quickly. On a downtrend day the reverse holds. The day often ends near its extreme — its high or its low — not in the middle.

Why does this split exist? Because the two kinds of participants behave differently. Short-term traders are happy to buy low and sell high inside a range all day. But when big institutional money (pension funds, mutual funds, large hedgers — the biggest buyers and sellers in the market) has a real reason to reposition, it does not finish in twenty minutes. It buys or sells for hours, and that one-sided flow is what a trend day looks like from the outside. You cannot see their orders directly. You can only see the footprints: how price behaves.

A rough, honest way to hold this in your head: on most days — think of it as the large majority — price balances. The trend days are the minority. But that minority carries an outsized share of both the profit potential and the loss potential, because price travels so much farther on them. Your job is not to predict the day type before the open. Your job is to **read the evidence as it builds, trade the playbook that matches, and change your mind when the evidence changes.**

The Opening Range: Your First Piece of Evidence

The **opening range** is simply the high and the low of the first chunk of the session — many traders use the first 30 to 60 minutes after the 9:30 a.m. ET cash open for stock index futures. It is the day's first agreed-upon band: the area buyers and sellers initially fought over.

The opening range matters because of what price does with it:

- **Trend evidence:** price breaks out of the opening range — pushes above its high on an up day, or below its low on a down day — and **holds** out there. It does not slip back inside. Pullbacks (small moves against the trend, taken by traders booking profits or testing the move) stay shallow and stop outside or near the edge of the range.
- **Range evidence:** price pokes above the opening range high, finds no follow-through, and slides back inside. Then it pokes below the low and climbs back inside. Repeated failed breakouts are the range day announcing itself.

One breakout means little. One breakout that **holds**, followed by a pullback that also holds outside the range, means a lot. Evidence in this game is a pattern of behavior, not a single candle.

VWAP: The Day's Fair-Value Line

VWAP stands for **volume-weighted average price**. In plain words: it is the average price of the day so far, where prices where more contracts traded count more heavily. If most of the day's volume traded at lower prices, VWAP sits lower; it is not a simple average of highs and lows — it is weighted by where the real business was done.

Why do traders care? Because large institutions are often judged against it. A fund that must buy a huge amount during the day is commonly measured on whether it paid better or worse than VWAP. That makes VWAP a line the biggest participants themselves watch, which is why it tends to act as the day's **fair-value line** — the price level the day keeps coming back to argue about.

VWAP has two honest uses in this playbook, and only two:

- **Use 1 — trend gauge.** On a trend day, price lives on one side of VWAP and stays there. An uptrend day spends its hours above VWAP, and dips toward VWAP get bought. A downtrend day lives below it. On a range day, price **crosses VWAP over and over** — up through it, back down through it — because there is no one-sided flow to hold it on one side. Count the crosses. Repeated crossing is balance; refusing to cross is trend.
- **Use 2 — pullback reference.** On a trend day, the first pullback that reaches toward VWAP or toward the edge of the opening range is a natural place to watch for the trend to resume — a reference point for where buyers (or sellers, on a down day) previously stepped in.

> **NOTE**
> VWAP is a reference, not a magnet and not a guarantee. Price can cross VWAP on a trend day during a sharp counter-move, and price can hug VWAP for an hour and then trend hard in the afternoon. It is one witness, not the whole trial. Never take a trade "because VWAP" — take it because the whole pattern of evidence agrees, with a stop that proves you wrong at a price you can afford.

Evidence Side by Side

Sign	Trend day	Range day
Opening range	Breaks out and holds outside	Breakouts fail and fall back inside
VWAP	Price lives on one side, dips get defended	Price crosses VWAP repeatedly
Pullbacks	Shallow, quick, bought (or sold) fast	Deep — moves give back most of the prior push
Time of day	New highs/lows keep coming into the afternoon	Extremes often set early, then nothing but chop
The close	Near the day's high or low	Back near the middle of the day's band

No single row decides the day. Three or four rows pointing the same way is a read you can act on — sized so that being wrong is a normal, affordable loss.

The Trend-Day Playbook

Once the evidence says trend, the playbook has three rules:

- **Buy the pullbacks, not the breakouts.** On an uptrend day, the lowest-risk entries come when price dips toward VWAP, the opening range edge, or the most recent small consolidation (a tight sideways pause) and holds. You are joining a move that has already proven itself, at a better price than the crowd that chased. On a downtrend day, mirror it: sell the bounces.
- **Trail your stop; let the day pay you.** A **trailing stop** is a stop-loss order you move in the direction of the trade as price travels — locking in more of the gain while still giving the trade room. Trend days reward patience: the biggest part of the move often comes late. Taking full profit at the first small target, every time, throws away the very days that pay for your range-day losses.
- **Never fade strength.** Fading means trading against the move — shorting a rising market because it "has gone too far." On a trend day, "too far" can travel another hundred points. The trend-day playbook has no counter-trend trades in it at all. If you cannot find a pullback entry, the correct trade is no trade.

Worked math, trend day played right: NQ opens, breaks above its opening range, and holds. On the first pullback you buy 1 NQ contract at 21,050. The day keeps trending and you trail your stop, finally exiting at 21,140. That is 90 points in your favor. NQ pays **$20 per point**, so 90 × $20 = **$1,800** on one contract. In ticks: 90 points ÷ 0.25 points per tick = 360 ticks, and 360 × $5 per tick = $1,800 — the same answer, as it must be. On the micro MNQ ($2 per point), the identical trade is 90 × $2 = $180 — which is exactly why the micros exist: same lesson, survivable size while you learn.

The Range-Day Playbook

Once the evidence says balance, the playbook flips:

- **Fade the extremes, toward the middle.** Sell near the top of the established band and buy near the bottom, with your target the middle of the range — often near VWAP, where the day's fair value sits. You are harvesting the back-and-forth, not predicting a journey.

- **Take smaller targets, and take them.** Range moves are short by definition. A fade that travels halfway to the middle is a success; holding out for a full traverse of the band is how range profits get handed back.
- **Quit the moment the range breaks.** The range playbook dies on one specific event: price breaks the band and **holds** outside it, the way described in the trend evidence above. That is the day changing character. Every fade after that moment is no longer a range trade — it is fading a young trend, the most expensive habit in day trading.

Worked math, range day played right: NQ has failed three breakouts and sits in a band between 21,000 and 21,080. You sell 1 NQ at 21,080, near the top, with a stop above the band at 21,100 — 20 points of risk, 20 × $20 = **$400** at risk, a size you chose *before* entering. Price rotates down to the middle and you cover at 21,040: 40 points × $20 = **$800** gained, twice your risk, and you are done. Notice what made this trade sane: the stop sat exactly where the idea dies — if price holds above the band, it is not a range anymore, and neither is your trade.

The Costly Confusion: The Two Expensive Mistakes

Every experienced futures trader has paid tuition to both of these. They are the same error wearing two costumes: **trading yesterday's playbook — or the playbook you wished for — instead of the day in front of you.**

Mistake 1: fading a trend day. NQ breaks its opening range to the upside at 10:00 a.m., holds, and pulls back shallowly — trend evidence, three rows deep. A trader anchored to "it always comes back" shorts 1 NQ at 21,000, sure the move is exhausted. Price does not come back. It grinds up all session, and the trader, adding hope instead of honoring a stop, finally covers at 21,150. That is 150 points against him: 150 × $20 = **$3,000 lost on one contract.** In ticks: 150 ÷ 0.25 = 600 ticks × $5 = $3,000. With a stop placed at the opening range edge — say 20,980, twenty points away — the same wrong idea costs 20 × $20 = $400 and ends in minutes. The read was wrong either way. The playbook failure — no stop, fading strength — is what turned a $400 tuition bill into a $3,000 one.

Mistake 2: chasing a range day. Same market, different day. NQ pokes 15 points above its opening range high at 21,060 and a trader buys the breakout, chasing 1 NQ at 21,060 — long at the exact top of a balance day. The breakout fails, as the earlier failed breakouts said it would, and price rotates to the bottom of the band. He exits at 20,990, down 70 points: 70 × $20 = **$1,400 lost**, buying the high and selling near the low of a day that went nowhere. The evidence for balance was already on the table — repeated VWAP crosses, failed pushes — and the range playbook's correct answer at 21,060 was either a small, tight-stopped fade or nothing at all.

Read those two losses again: $3,000 and $1,400, on single contracts, in a market where the correct playbook offered a $400-risk trade and a $1,800 trend day. **The day type was the trade.** Everything else was decoration.

> **RISK**
> If you remember one number from this module, make it this one: a single NQ contract moves $20 for every point, and index futures can move 150 points in a session without doing anything unusual. If a loss of that size would hurt your account or your sleep, your contract size is wrong — full stop. Trade MNQ at $2 per point until the playbook, not the P&L, is what you feel.

Putting It Together: A Simple Daily Routine

- **Before the open:** note the opening range once it forms. Do not label the day yet.
- **First hour:** collect evidence, not positions. Count VWAP crosses. Watch whether breakouts hold.
- **Midday:** say the day type out loud — trend or range — and trade only that playbook. Write it in your journal.
- **Any time:** if price breaks the band and holds, or a trend day starts crossing VWAP repeatedly, **re-label the day** and switch playbooks or stand aside. Changing your mind is not weakness; in this arena it is the core skill.
- **At the close:** record what the day actually was and whether your playbook matched. This log, kept honestly for a few months, teaches faster than any course — including this one.

Common Mistakes at This Level

- **Labeling the day in the first ten minutes.** Early moves lie constantly. Collect an hour of evidence; the market will still be there.
- **Fading a trend day because price "has to" come back.** It does not have to. Institutional flow can run all day, and your account funds the lesson.
- **Chasing the first breakout on a balance day.** On range days the first breakout is the trap that pays the faders.
- **Using VWAP as a signal instead of a witness.** A VWAP cross alone means nothing; a pattern of crosses, failed breakouts, and deep pullbacks means balance.
- **Refusing to re-label the day.** Range days break into trends and trend days stall into ranges. The trader who cannot switch playbooks donates on both kinds of day.
- **Sizing the same on every day type.** Trend days justify holding for travel; range days pay for quick, small targets. Confusing the two sizes is how good reads still lose money.
- **Trading full-size NQ while learning to read days.** At $20 a point, your education gets billed at full price. MNQ exists so the tuition is $2 a point.

Chapter Summary

- Most sessions are range/balance days; a minority are trend days — but the trend days carry the biggest profit potential and the biggest losses.
- The opening range is your first evidence: breakouts that hold outside it suggest trend; breakouts that fail back inside suggest balance.
- VWAP is the volume-weighted average price — the day's fair-value line. Its two honest uses: a trend gauge (price lives on one side) and a pullback reference. It guarantees nothing.
- Repeated VWAP crosses plus deep pullbacks equal balance. One-sided VWAP behavior plus shallow pullbacks equals trend.
- Trend-day playbook: buy pullbacks to structure, trail your stop, never fade strength.
- Range-day playbook: fade the extremes toward the middle, take smaller targets, and quit instantly if the range breaks and holds.
- The two expensive mistakes are fading a trend day (150 NQ points against = $3,000 on one contract) and chasing a range day ($1,400 in the worked example) — both are playbook errors, not bad luck.

- Day-type reads can change mid-session. Re-labeling the day and switching playbooks — or standing aside — is the core Level 3 skill.
- Learn this read on MNQ at $2 per point. Earn the right to size up with a journal that proves your playbook matched the day.

Check Yourself

1. Which type of day is more common — a trend day or a range day — and why do trend days still matter so much?
2. Name two pieces of evidence that a session is trending rather than balancing.
3. What is VWAP, in plain words, and what are its two honest uses in this playbook?
4. On a range day, where does your stop belong on a fade trade, and why exactly there?
5. A trader shorts 1 NQ contract at 21,000 and covers at 21,060 after fading a trend day. How much did he lose, in points, ticks, and dollars?

Answers: 1) Range/balance days are the large majority; trend days matter because price travels so much farther on them, concentrating both the profit potential and the damage. 2) Any two of: price breaks the opening range and holds outside it; price lives on one side of VWAP with dips defended; pullbacks stay shallow; the close comes near the day's extreme. 3) VWAP is the volume-weighted average price — the day's average traded price, weighted toward prices where the most volume traded; it serves as a trend gauge and as a pullback reference, never a guarantee. 4) Just outside the band being faded — because if price breaks the range and holds, the range idea is dead, and the stop must sit where the trade's reason for existing ends. 5) 60 points against him; 60 ÷ 0.25 = 240 ticks; 240 ticks × $5 = $1,200 lost (60 points × $20 per point = $1,200).

> **RULE**
> Read the day first, then trade it. The playbook follows the evidence — never the other way around.



AA3-09

FUTURES RISK & THE DAILY STOP

Notional danger, liquidation math, and the stop that ends the argument.

Alpha Academy Level 3 · Team Alpha Trading

Futures Risk & the Daily Stop

Futures are the most honest market in the world — and the fastest teacher. Every point the market moves puts real dollars in your account or takes real dollars out, immediately, with no waiting and no mercy. That speed is exactly why risk control is not a chapter of futures trading. It IS futures trading. Everything else — your entries, your charts, your timing — only matters if you are still in the game tomorrow.

This module is for the student who already knows what futures contracts are, what margin is, and what the point values are (ES pays $50 per point, MES pays $5 per point, and so on — all covered in Level 1). Here we master the part that decides whether you survive: how much each trade can actually hurt you, how to set a daily loss limit that means something, and why futures tempt you to break your own rules harder than any other market.

By the end, you will be able to do three things: calculate the true dollar risk of any futures trade before you place it, set a daily stop in hard dollars and know exactly what to do when you hit it, and explain why "just one more trade" is the most expensive sentence in this business.

> **RISK**
> Futures are leveraged, which means small market moves create large gains and large losses compared to the money in your account. Most futures traders lose money, and beginners lose fastest when they trade too big. Everything in this module exists to keep one bad day from ending you.

The Leverage Math You Must Respect

Start with the two numbers that define every futures position.

The **notional value** of a contract is the total dollar value of what the contract controls. One ES contract (the E-mini S&P 500 future) at an index level of 6,000 controls 6,000 × $50 = **$300,000** of stock market exposure. That is not a typo. One contract puts you in control of three hundred thousand dollars' worth of the index.

Margin is the good-faith deposit your broker requires you to post to hold that position. For day trading (opening and closing a position within the same session), brokers set their own **day margin**, which is far below the full overnight margin set by the exchange. Day margins on a contract like ES are often just a few thousand dollars. Your broker publishes its current day margins — check them before you trade, because brokers can raise them on volatile days.

Put those two numbers side by side and you see the trap:

- You post, say, a few thousand dollars of margin.
- You control $300,000 of exposure.
- Every 1-point move is $50. Every 60-point move — a 1% move in the index at 6,000 — is **$3,000** on a single contract.

Now the scenario every futures student must be able to do in their sleep. The index moves **2% against you**. Two percent of 6,000 is 120 points. At $50 per point, that is **$6,000 lost on one contract** — more than many day margins. If your account held $5,000 and you were day trading one ES, a 2% adverse move does not just hurt. It can wipe the account out entirely.

How liquidation actually happens

Liquidation means your broker forcibly closes your position because your account no longer has enough money to support it. You do not get a vote. Here is the sequence:

1. Your position moves against you and your account balance falls in real time.
2. Your balance drops below the margin required to hold the position. This triggers a **margin call** — a demand for more money.
3. In a fast market, the broker does not wait for you to wire funds. It liquidates — closes your position at whatever price is available — to protect itself from your loss becoming its loss.
4. You are left with whatever balance remains, plus any fees, and in extreme moves an account can even go negative, meaning you owe the broker money.

> **NOTE**
> The broker's liquidation is not personal and it is not negotiable in the moment. The only protection is sizing so small, and stops placed so honestly, that your account never gets near the line.

Per-Trade Risk: The One Formula

Risk in futures is not a feeling. It is one multiplication:

Risk per trade = stop distance (in points) × point value (in dollars) × number of contracts

Your **stop** is the price level where you exit a losing trade — decided before you enter, not after. The **stop distance** is how many points sit between your entry and that exit.

Same market. Same distance. Completely different risk:

Contract	Point value	10-point stop	Dollar risk on 1 contract
MES (Micro E-mini S&P 500)	$5 per point	10 points	10 × $5 = $50
ES (E-mini S&P 500)	$50 per point	10 points	10 × $50 = $500

Read that table until it hurts. A trader with a $2,500 account who takes a 10-point stop on one ES risks $500 — that is 20% of the entire account on a single trade. The same trader on one MES risks $50 — 2% of the account. Same idea, same chart, same stop. One version is a survivable lesson; the other is a countdown to liquidation.

Micro contracts exist precisely so beginners can size sanely. There is no shame in MES. There is only shame in blowing up an account to avoid it.

> **TIP**
> Before every trade, say the dollar risk out loud: "Entry here, stop there, that's 8 points on one MES — I'm risking $40." If you cannot say the number, you are not ready to place the trade.

Working the formula backwards

Professionals start from the dollar risk, not the contract. Decide what one trade is allowed to cost you — many careful traders keep it near 1% of the account. On a $5,000 account, 1% is $50.

- On MES ($5/point), $50 of risk buys you a 10-point stop distance.
- On ES ($50/point), $50 of risk buys you a 1-point stop distance — so tight it is meaningless in a market that wiggles several points in a minute.

The math is telling you which contract belongs in your account. Listen to it.

The Daily Stop: A Hard Number, Set Before the Session

A **daily stop** is the maximum number of dollars you are allowed to lose in one day. When your losses reach it, you are done — platform off, no more trades, the day is over. It is set in **dollars**, before the session starts, while you are calm.

Why dollars and not points or trades? Because dollars are what you actually lose. "I lost 40 points" sounds abstract. "I lost $400" is real. Set the number as a small slice of the account — many traders use something in the range of 2–3% of the account as a daily maximum, and less while learning. On a $5,000 account, a 2% daily stop is $100. With MES risk of $25–$50 per trade, that allows two to four honest attempts. That is plenty. If four good attempts all fail, the market is telling you something about today — believe it.

The daily stop has exactly one job: it converts a bad day from a catastrophe into a bill you can afford. Accounts rarely die from one trade. They die from one day — the day a trader kept going, down $200, then $400, then "trading to get it back" at double size, down $1,500 by the close. Every one of those stories has the same missing chapter: a daily stop that was actually honored.

> **RULE**
> Hit the daily stop and the platform closes. Not "one last trade." Not "I'll just watch and take the perfect one." Off. The stop only works if it is mechanical — the moment it becomes a negotiation, it is not a stop anymore.

Why futures make the daily stop so hard to keep

Futures are engineered — not on purpose, but by their nature — to tempt you into breaking this rule:

- **No pattern day trader rule.** The classic PDT rule that limits day trades in small stock accounts does not apply to futures. Nothing external stops you from trading fifty times a day. The only brake is you.
- **The market is open nearly 24 hours.** CME Globex trades from Sunday 6 PM to Friday 5 PM ET with just a one-hour daily break. There is always another session, another move, another chance — including at 2 AM when you are tired and emotional.
- **Revenge feels cheap.** Margin makes re-entering feel affordable. "One more ES to win it back" takes three seconds to place. Losing double takes about as long.
- **Losses feel unfinished.** In futures your balance updates tick by tick. A red number on the screen begs to be "fixed" right now. It cannot be fixed right now. It can only be made worse.

Knowing the temptation by name is half the defense. The other half is mechanical: many brokers and platforms let you set an automatic daily loss limit that locks you out when it triggers. Use it if it is offered. A lock you set while calm beats willpower you need while tilted.

The One-Contract Rule

Until you have a proven record — real consistency, over a meaningful sample of trades, following your own rules — you trade **one contract**. One micro, if that is what your account size dictates, which for most beginners it is.

One contract does three things for you:

1. It caps the damage while your skills are still unproven. Tuition in this market is paid in losses; one contract keeps the tuition cheap.
2. It keeps your emotions readable. If one MES is making your heart pound, you have learned something priceless about your risk tolerance — at $5 a point instead of $50.
3. It forces your edge to be real. If a method only "works" when you trade big, it does not work. Size multiplies results; it does not create them.

> **RISK**
> The most dangerous upgrade in futures is not a new indicator. It is jumping from one micro to multiple full-size contracts because a good week made you feel ready. One good week proves almost nothing. The market charges full price for that lesson.

Scaling: How Size Is Earned

Scaling up — trading more contracts — is legitimate, but it follows strict rules:

- **Only from profits.** Increase size out of money the market paid you, not money you deposited to chase size. If your account grew from $5,000 to $6,500 by trading one MES well, the account itself is telling you it can support a slightly larger footprint. A fresh deposit tells you nothing.
- **Only after a track record.** Weeks to months of rule-following trades, journaled, with your daily stop honored every single time — including the days it hurt. The track record that qualifies you is mostly a record of discipline, not of wins.
- **One small step at a time.** One micro becomes two micros — not five ES. Each step up re-tests your emotions at the new dollar swings, and each step must be survived calmly before the next.
- **Scale back down without shame.** If results or discipline slip at the new size, return to one contract immediately. Size is a dial you turn both ways, not a trophy you keep.

Worked example: a trader builds a $4,000 account to $5,200 over three months on one MES, risking about $25–$40 per trade and never breaking the daily stop. Moving to two MES doubles per-trade risk to roughly $50–$80 — still small against a $5,200 account, and fully funded by profits. That is scaling. Depositing $10,000 on Friday and trading three ES on Monday is not scaling. It is gambling with extra steps.

The Overnight Trap: Day Margin Disappears at the Close

Here is the trap that catches new futures traders by surprise. That small day margin your broker offers applies only while the session is running. **At the close, day margin ends.** Any position still open is now an overnight position, and it must be supported by the much larger **overnight (exchange) margin** — for a contract like ES, that can be many times the day margin.

If your account cannot meet the overnight requirement, the broker will liquidate your position at or before the close — at whatever price is available. Traders have watched a position they intended to "just hold a little longer" get closed for them in the final minutes, at a loss they did not choose.

Holding futures overnight is a legitimate decision for a capitalized, deliberate trader who has planned for the margin, the gap risk, and the hours when news can hit a market you cannot exit quickly. It is never an accident to drift into. The rule for students is simple:

> **RULE**
> If you opened it as a day trade, it closes as a day trade — before the session ends. Never let the clock make a margin decision for you.

And remember the gap itself: a stop does not protect an overnight position the way it does intraday. If the market opens far beyond your stop after overnight news, you get filled near the open, not at your stop price. Overnight holding is a different risk species, and it belongs to a later stage of your education — traded deliberately, sized smaller, and funded properly.

Common Mistakes at This Level

- **Confusing margin with risk.** "I can afford the margin" does not mean "I can afford the trade." Margin is the deposit; risk is stop distance × point value, and it is usually much bigger.
- **Trading ES on a micro-sized account** because the micro "feels too small to matter." The $500 loss on one ES stop-out matters plenty.

- **Setting the daily stop in points or vibes** instead of hard dollars — or moving it mid-session "just for today."
- **Revenge trading after hitting the stop**, often at bigger size, converting a controlled loss into an account event.
- **Scaling after a hot streak** instead of after a long, journaled record of discipline.
- **Drifting into overnight holds** without the margin or the plan for them, then meeting liquidation at the close.
- **Never doing the math out loud.** If the dollar risk is not spoken before entry, it was never really calculated.

Chapter Summary

- One ES at 6,000 controls $300,000 of exposure; a 1% move is 60 points = $3,000 per contract, and a 2% adverse move is 120 points = $6,000 — more than many day margins.
- Liquidation is the broker forcibly closing your position when your balance can no longer support it. It is mechanical, fast, and not negotiable.
- Per-trade risk = stop distance in points × point value × contracts. The same 10-point stop risks $50 on MES and $500 on ES.
- Start from the dollar risk your account allows, and let the math choose your contract. For most beginners, that answer is a micro.
- The daily stop is a hard dollar number set before the session. Hit it and the platform closes — no exceptions, no "one more."
- Futures tempt you to break the stop: no PDT limits, a nearly 24-hour market, cheap re-entry, and tick-by-tick losses begging to be "fixed."
- Trade one contract until a journaled track record of discipline — not one good week — proves you consistent.
- Scale only from profits, one small step at a time, and scale back down the moment discipline slips.
- Day margin disappears at the close. An unplanned overnight hold can be liquidated by your broker — day trades close as day trades.

Check Yourself

1. One ES contract trades with the index at 6,000. What is its notional value, and what does a 2% move against you cost?
2. Your stop is 10 points away. What is your dollar risk on one MES, and on one ES?
3. What is a daily stop, when is it set, and what exactly happens when you hit it?
4. Name two features of futures markets that tempt traders to keep trading after they should have stopped.
5. You entered a position using day margin and decide to hold it past the close. What changes, and what can your broker do?

Answers: 1) Notional value is 6,000 × $50 = $300,000. A 2% move is 120 points, and 120 × $50 = $6,000 lost on one contract. 2) MES: 10 × $5 = $50. ES: 10 × $50 = $500. 3) A daily stop is the maximum dollars you allow yourself to lose in one day, set before the session while you are calm. When your losses reach it,

trading ends for the day — platform off, no exceptions. 4) Any two of: no pattern day trader limits on futures, the nearly 24-hour market always offering another chance, low margin making re-entry feel cheap, and tick-by-tick losses that beg to be "won back." 5) At the close, day margin ends and the position must be supported by the much larger overnight margin. If your account cannot meet it, the broker can liquidate your position at whatever price is available.

> **RULE**
> Margin tells you what you are allowed to hold. The stop distance times the point value tells you what you can afford to lose. Trade only when the second number — not the first — says yes.



AA3-10

THE FUTURES ROUTINE

The full professional day — pre-session to weekly review.

Alpha Academy Level 3 · Team Alpha Trading

The Futures Day Trader's Routine

You have finished Level 1 and Level 2. You know what a futures contract is, you know the point values cold, and you have paper traded enough to know that knowing things is not the same as doing them at 9:31 in the morning with real money moving. This module is about that gap. It teaches the **routine** — the fixed sequence of preparation, execution, and review professionals wrap around whatever method they trade.

A **futures day trader** buys and sells futures contracts — agreements to trade an index, commodity, or currency at a set price — and closes every position before the session ends, holding nothing overnight. This module does not teach you entries. Alpha Academy is deliberately neutral about entry methods: you bring your own. What it gives you is the professional day around those entries — because in futures, the routine keeps a bad method survivable and a good method profitable.

> **NOTE**
> The honest warning for this arena: most day traders lose money, and futures are leveraged — a small index move becomes a large dollar move. One ES contract at an index level of 6,000 controls $300,000 of index exposure (6,000 × $50 per point), and a 1% index move is 60 points — $3,000 per contract. Education only, not financial advice.

Before the Bell: The Pre-Session Routine

Professionals do not "get a feel for the market" in the morning. They run the same checklist, in the same order, every day, finishing before the opening bell — for US index futures, the regular session opens at 9:30 AM Eastern.

Step 1: Review the Globex session

Globex is the CME's electronic trading platform, where index futures trade nearly around the clock — from Sunday 6:00 PM to Friday 5:00 PM Eastern, with a daily break from 5:00 to 6:00 PM. While you slept, the market traded. Read it like a story: Did it trend in one direction, or chop sideways? Make a new high and fail, or hold a low and recover? You are not predicting anything — you are learning what already happened so the open does not surprise you.

Step 2: Mark the overnight range

The **overnight range** is simply the highest and lowest price traded during the Globex session before the regular open. Draw both lines on your chart. The regular session constantly refers back to them: a push above the overnight high means buyers are doing something new; a session that never escapes the range may belong to the range traders.

Write the width down too. If the overnight high is 6,018.00 and the low is 5,986.25, the range is 31.75 points. On MES — the micro E-mini S&P 500 contract, worth $5 per point — that full range is worth about $159 per contract.

Step 3: Check the economic calendar

An **economic calendar** lists scheduled government and central-bank releases: jobs reports, inflation prints, Federal Reserve decisions and speeches — pre-announced moments when index futures can move 20, 30, or more points in seconds. No routine makes trading through a volatility spike safe for a developing trader, so professionals either plan around the release (flat before it, patient after it) or sit that session out. Check the calendar, write the release times on your plan sheet, and decide — now, calmly — what you will do at each one. Decide nothing at the moment of the release.

Step 4: Write the daily stop before you trade

Your **daily stop** is the maximum amount you are allowed to lose today, written down before the first trade. When the day's losses reach it, you are done — platform closed, no exceptions, no "one more to win it back."

Size it from your account and your normal trade risk, not from your mood. On a $10,000 account risking about 0.5% per trade, one trade risks about $50 — so a $150 daily stop is three full trade losses: a genuinely bad day, and a survivable one at 1.5% of the account. Hitting it means the system worked, not that it failed: you are still here tomorrow.

> **RULE**
> The daily stop is written before the open, in dollars, where you can see it. A daily stop that lives in your head does not exist.

Step 5: Choose today's instrument

Decide which contract you will trade today — and trade only that one. Most developing futures traders should live in the micros: **MES** at $5 per point or **MNQ** (micro Nasdaq-100) at $2 per point, instead of their full-size parents ES ($50/point) and NQ ($20/point). The micros exist so you can size sanely while learning.

One instrument, chosen in advance, because every contract has its own personality — how fast it moves, how wide its typical swings are — and splitting attention across three contracts means you truly know none of them. Also confirm your broker's **day margin** — the reduced deposit required to hold a position intraday. It is set by your broker, is far below overnight exchange margin, can be raised on volatile days, and is published by your broker — check it before you trade. But never let a low margin number talk you into a bigger position: margin is a deposit requirement, not a risk suggestion. Size comes from stop distance and your risk rule, never from how much margin you have.

The pre-session plan sheet

By 9:25 AM the plan sheet is written. It looks like this:

Item	Today's answer
Overnight high / low	6,018.00 / 5,986.25
Scheduled releases	10:00 AM report — flat or patient through it
Daily stop	$150, then done
Instrument	MES only
Max risk per trade	$50

That is the whole pre-session — ten to twenty minutes that eliminate most of the decisions that destroy beginners, because they were already made calmly.

During the Session: The Execution Routine

The plan is written. The execution routine has three parts: a session checklist that never changes, a patience rule for the first hour, and a hard reassessment at midday.

The session checklist

Professionals run the same literal checklist at the open, every day, like a pilot before takeoff:

- Plan sheet visible: range marked, release times noted, daily stop where I can see it
- Only today's instrument on the screen — other charts closed
- Position size calculated from my risk rule before any entry, not after
- Stop order placed with every entry — no trade exists without its protective stop already working
- After any loss, I stand up, breathe, and re-check the plan before the next decision

The first-hour patience rule

The first hour of the regular session — 9:30 to 10:30 AM Eastern — contains the widest swings, the fastest reversals, and the most misleading moves of the day. A professional routine for a developing trader is blunt: **during the first hour, you take only your very best, fully-planned setups — and many professionals take none at all.** Watch. Let the session declare itself. Let the overnight high and low get tested; see whether they hold or break. This is not timidity: the first hour is when the daily stop gets spent by traders who confuse activity with opportunity, and capital still in hand at 10:30 can work all afternoon.

> **RISK**
> Every futures horror story starts the same way: three quick trades in the first twenty minutes, the daily stop nearly gone by 10:00, then four hours of emotional revenge trading. The first-hour patience rule is the guardrail against exactly that morning.

The midday reassessment: trend or range?

Around midday, stop and answer one question in writing: **is today a trend day or a range day?**

On a **trend day**, price moves persistently in one direction — pushes make progress, pullbacks are shallow, and the session closes near its extreme. On a **range day**, price rotates back and forth between the day's high and low, crossing the middle again and again, punishing anyone who chases a move.

The call matters because the two day types demand opposite behavior. Trend days reward patience and holding winners; range days reward quick, small trades at the edges — or, for most developing traders, not trading at all. The expensive mistake is using trend-day behavior on a range day (holding through every rotation, giving everything back) or range-day behavior on a trend day (taking tiny profits while the real move runs without you). Write the call down — "trend" or "range," with a time stamp — because your journal will grade it later, and that grade, over weeks, is some of the most valuable skills data you own.

A Model Day, Hour by Hour

Here is the routine running on one ordinary day. The prices are realistic teaching examples, not a record of anyone's actual trades. The trader: MES only, $50 max risk per trade, $150 daily stop, overnight range 5,986.25–6,018.00.

8:45–9:25 AM — Pre-session. Globex chopped sideways most of the night, then pushed to the 6,018.00 high early and faded back toward 6,005. Range marked. A report lands at 10:00 AM — noted. Plan sheet written. Coffee. No charts open except MES.

9:30–10:30 AM — First hour: watch. The open is energetic: price jumps to 6,015, stalls below the overnight high, drops to 6,002, snaps back to 6,012. Noise, not signal — the patience rule keeps the trader flat through all of it. By 10:15 the picture is clarifying: each dip is bought at a slightly higher low, and price is spending more time in the upper half of the range. At the 10:00 AM report, price spikes 6 points and settles; the trader sat through it, as planned. **10:42 AM — The trade.** Price pushes through the overnight high at 6,018.00, pulls back, and holds above it — the cap is now a floor. A second, smaller pullback prints a low of 6,010.75 and turns back up. The trader's method (whatever it is — the routine does not care) gives a long entry there: long **MES at 6,012.50**, with a protective stop at **6,004.50** — below the pullback structure, and 8.00 points of risk.

Now the full math, before the trade goes anywhere:

Item	Numbers
Entry	6,012.50, long 2 MES
Stop	6,004.50
Risk per contract	8.00 points × $5 = $40
Total risk	2 × $40 = $80…

— and there the checklist catches an error. The plan says **$50 max risk per trade**; 2 contracts risk $80. The trader reduces to **1 MES**: 8.00 points × $5 = **$40 total risk**, inside the plan. That unglamorous shrink — decided by the written plan, not by feel — is the routine earning its keep.

11:20 AM — First target. Price grinds up to 6,028.50: +16.00 points from entry, 16 × $5 = **+$80** of open profit on the single contract. The method's plan says take profit here, so the trader exits: **+$80 on a $40 risk — a 2R trade** (it made twice what it risked). No greed adjustment, no "let it ride just this once." The routine's job is repeatability, not heroics.

12:30 PM — Midday reassessment. The morning trended slowly up, but since 11:20 price has crossed 6,024 four times in both directions and gone nowhere. The trader writes: "Morning trend, now rotating — call it range for the afternoon unless the day's high or low breaks with real follow-through." Afternoon size: reduced. This is now a day to protect the +$80, not donate it back.

2:05 PM — The refused setup. Price dips to 6,021 and pops quickly to 6,026. It *feels* like it wants to run. Six months ago this trader buys that pop. Today the checklist asks three questions: Where is it? Mid-rotation — neither at the range's edge nor on a confirmed break. What is the day type? Range, per the written 12:30 call. Where would the stop go? Below 6,018 at best — 8 points of risk for a few points of realistic room. Risk bigger than reward, wrong location, wrong day type. **The trader passes.** Passing is a trade decision, and the journal records it as a good one.

3:40 PM — Flat before the close. Index futures keep trading after the 4:00 PM stock market close, but this routine ends the day deliberately: last new trades by 3:30, everything closed by 3:45. The final minutes bring thin liquidity and jumpier prices; holding into them is overnight-style risk without an overnight plan. Today nothing is open anyway. The session ends **+$80, one trade taken, one refused, zero rules broken.**

After the Close: The End-of-Day Review

Within an hour of finishing, complete the journal. The futures-specific fields that matter most:

Journal field	Today
Instrument	MES
Trades taken	1
Points risked (planned)	8.00
Points result	+16.00
Day type — my midday call	Trend morning, range afternoon
Day type — what it actually was	Same — call was right
Rules followed?	Yes — including the pre-trade size reduction
Daily stop respected	Yes — never approached

Two fields deserve emphasis. **Points risked** is recorded separately from dollars because points are the purest measure of execution: dollars change when size changes, points do not. And the **day-type call** is graded without mercy or emotion: did the written midday call match what the session actually did? Reading day type accurately is among the most transferable skills in this arena.

> **TIP**
> Journal the refused trades too, one line each — what you passed on and why. Reviewed weekly, they show whether your filter protects you or costs you, and they prove in your own handwriting that discipline is normal.

Friday: The Weekly Review

Daily journals feed one weekly session — thirty minutes, same time each week, no phone — built on four questions.

1. What were my points, by day type? Split the week's points P&L by the day-type call. An illustrative week:

Day type called	Points P&L (per contract traded)
Trend days (3 sessions)	+38.50 points
Range days (2 sessions)	−12.25 points
Week total	+26.25 points

At $5 per point, +26.25 points is $131.25 per contract — but the split is the story: money made on trend days, bled back on range days. That pattern is invisible in any single day's journal; it only exists at the weekly level.

2. Where is the biggest leak? Not "what went wrong" in general — the one specific, repeated point-loser. Here it is obvious: −12.25 points on range days, mostly from trades taken mid-rotation instead of at edges

or not at all.

3. What is the one fix for next week? One. Not five. For this trader: "On days I call range at midday, afternoon size drops to zero unless price is at the range high or low." One fix, written as a rule, testable next Friday.

4. Did I follow the routine? Count the week's rule breaks — trades without stops, size over plan, sessions run past the daily stop. A profitable week with four rule breaks is a warning, not a victory: the market paid you for behavior that will eventually bill you. An unprofitable week with zero rule breaks is the routine working as designed while a method gets its sample size.

Common Mistakes at This Level

- **Skipping the pre-session on "quiet" days.** The routine exists for days that *start* quiet and are not by 10:00 AM. Preparation done only sometimes is a hobby, not a routine.
- **Letting day margin set your size.** A low margin requirement is deposit policy, not risk information. Size from stop distance and your risk rule — always.
- **Revenge trading after the first loss.** The first-hour cluster of trades that blows the daily stop by 10:00 is almost never analysis failing. It is emotion spending the day's risk budget before the day has declared its type.
- **Never making the midday call — or making it and ignoring it.** An unwritten call cannot be graded; an ignored one teaches you that your plan is optional.
- **Holding into the close "because it's working."** Hold past your routine's end and you are in a different trade — no stop logic, no plan, overnight risk you never agreed to.
- **Journaling dollars but not points, process, or day type.** Dollar-only journals hide the patterns that matter. Points, day-type calls, and rule adherence are where improvement lives.
- **Five fixes every Friday.** A review that produces five changes produces zero changes. One leak, one fix, graded next Friday.

Chapter Summary

- The futures day trader's process edge is a fixed routine: pre-session preparation, a checklist-driven session, an end-of-day journal, and a weekly review — in the same order, every day.
- Pre-session means five things: review Globex, mark the overnight high and low, check the economic calendar, write the daily stop in dollars, choose one instrument.
- Position size comes from stop distance and your risk rule (for example, $50 maximum per trade) — never from your broker's day margin.
- The first hour is for patience: only the best planned setups, or none. Most of the day's damage is done before 10:30 AM.
- At midday, write the call — trend day or range day — and trade the rest of the session to match it. Grade the call in the journal.
- A model day is mostly *not* trading: one well-sized MES trade (8 points risked, 16 points made, +$80 on $40 of risk), one setup refused for wrong location on a range afternoon, flat before the close.
- The futures journal records instrument, planned points risked, points result, day-type call versus reality, and rules followed.

- The weekly review splits points P&L by day type, finds the biggest leak, and sets exactly one fix for the next week.

Check Yourself

1. What are the five steps of the pre-session routine, in order?
2. Your plan allows $50 risk per trade. You want to buy 1 MES with a stop 13 points away. Can you take it as planned — and what does the routine say?
3. Why is day margin a dangerous way to decide your position size?
4. What question must be answered in writing at midday, and why does the answer change how you trade the afternoon?
5. In the model day above, the trader refused the 2:05 PM setup. Name the three reasons the checklist gave for passing.

Answers: 1) Review the Globex overnight session; mark the overnight high and low; check the economic calendar and note release times; write the daily stop in dollars; choose one instrument. 2) No — 13 points × $5 on MES = $65 of risk, over the $50 limit. Either your method offers a valid tighter stop, or you pass; you never widen risk to fit a trade. 3) Day margin is the broker's deposit requirement — set for the broker's protection, raisable on volatile days, and silent about what a move would cost you. On a leveraged contract, margin-sized positions can lose many times the deposit; size must come from stop distance × point value versus your risk rule. 4) "Is today a trend day or a range day?" Trend days reward patience and holding winners; range days punish chasing and reward small edge trades or standing aside — wrong behavior for the day type is how profits get returned. 5) Wrong location (mid-rotation, not an edge or confirmed break), wrong day type (the written midday call was range), and poor risk-to-reward (an ~8-point stop against a few points of realistic room).

> **RULE**
> In futures, you do not rise to your analysis — you fall to your routine. Build the routine until the calm, planned version of you is the only one who ever gets to trade.



CU-07

TRACK B EXAM
FUTURES

30 questions over the futures track. Pass mark: 80%.

Curriculum & Assessment · Team Alpha Trading

Track B Exam — Futures Day Trading

This is the Track B exam for Alpha Academy Level 3. It covers the five Futures Day Trading modules: **AA3-06 The Futures Day Trader's Setup, AA3-07 Trading the Open, AA3-08 Trend vs Range, AA3-09 Futures Risk & the Daily Stop,** and **AA3-10 The Futures Day Trader's Routine.**

How it works:

- **Closed book.** Put the modules away. This checks what is actually in your head.
- **30 questions**, each with four choices (A, B, C, D) and exactly one correct answer.
- **You need 24 out of 30 (80%) to pass.**
- **Retakes are allowed.** If you miss the mark, re-read the modules your wrong answers point to, then take it again.
- There are **no answers in this document**. The answer key is a separate file, so this exam stays honest.

> **NOTE**
> This is an education check, not a license and not financial advice. Passing means you understand the material — real trading skill is proven in a paper account, one journaled trade at a time.

Part 1 — The Setup (AA3-06)

1. Day margin (intraday margin) on a futures contract is set by:

A) The exchange B) Your broker C) The federal government D) A single industry standard that is identical everywhere

2. Overnight margin (initial margin) is set by:

A) Your broker B) Your trading platform C) The exchange D) The SEC

3. ES is trading at 6,000. One ES contract (worth $50 per point) controls how much notional index exposure?

A) $30,000 B) $60,000 C) $300,000 D) $3,000,000

4. You are long 1 ES contract with the index at 6,000, and the index falls 1%. Your loss is:

A) $3,000 B) $300 C) $600 D) $6,000

5. The minimum tick on ES and MES is 0.25 points. One tick is worth:

A) $50 on ES and $5 on MES B) $5 on ES and $12.50 on MES C) $2.50 on ES and $0.25 on MES D) $12.50 on ES and $1.25 on MES

6. Futures margin is best described as:

A) A loan from your broker that charges interest B) A good-faith deposit you post as security while controlling a contract worth far more than the deposit C) The full purchase price of the contract D) Insurance that refunds your trading losses

Part 2 — Trading the Open (AA3-07)

7. **Overnight inventory** means:

A) What happened during the Globex session while the stock market was closed — who was buying and selling, and where price traveled B) The contracts your broker keeps in storage for you C) The positions you personally carried overnight D) The number of shares a company has outstanding

8. Which levels does AA3-07 have you mark before the open to frame the day?

A) Yesterday's opening price, the 200-day average, and the day's pivot B) VWAP, the round number, and last week's high C) The overnight high, the overnight low, and yesterday's close D) The bid, the ask, and the last trade

9. The **opening range** is:

A) The high and low of the first part of the session (often the first 15, 30, or 60 minutes) — a map for the day, not a prediction B) A guaranteed boundary that price will not cross that day C) The distance between the bid and the ask at 9:30 AM D) The overnight high minus yesterday's close

10. ES gaps up, pushes above the overnight high in the first minutes, then stalls and falls back inside the overnight range. This open is behaving most like:

A) A drive open B) A balanced open C) A liquidation D) A test-and-reverse open

11. On a **drive open**, price:

A) Opens, tests an overnight extreme, and reverses B) Opens strongly in one direction and keeps going, with pullbacks shallow or absent C) Chops sideways in a narrow band all morning D) Always gaps more than 50 points

12. The first-hour playbook in AA3-07 advises you to:

A) Trade your largest size immediately at 9:30 AM, before any range can form B) Never trade at all before noon C) Use smaller size while the opening range forms, refuse to chase the first spike, and stay alert for scheduled 10:00 AM reports D) Ignore the economic calendar until lunch

Part 3 — Trend vs Range and VWAP (AA3-08)

13. **VWAP** is:

A) The average of the day's high and the day's low B) The average price of the day so far, weighted by volume — prices where more contracts traded count more heavily C) Yesterday's closing price adjusted for volume D) A moving average of the last 20 trading days

14. Why do large institutions watch VWAP so closely?

A) It predicts tomorrow's opening price B) The exchange requires every trade to happen at VWAP C) It is the level the exchange uses to set margin D) Funds working large orders are often measured on whether they paid better or worse than VWAP, so the biggest participants treat it as the day's fair-value line

15. By noon, price has crossed VWAP nine times and keeps coming back to it. That is evidence of:

A) A balanced, range-type day — no one-sided flow is holding price on one side of VWAP B) A strong trend day C) An approaching margin call D) A drive open

16. The evidence says trend day, up. The trend-day playbook says to:

A) Short every rally, because the move has gone too far B) Take full profit at the first small target, every time C) Buy pullbacks toward VWAP or the opening-range edge, and trail your stop so the day can pay you D) Double your size at the highs

17. The evidence says range day. The range-day playbook says to:

A) Chase every breakout of the band with full size B) Fade the extremes toward the middle, take smaller targets and actually take them, and quit the moment price breaks the band and holds outside it C) Hold every fade until it crosses the entire market D) Ignore VWAP completely

18. The "two expensive mistakes" of AA3-08 are:

A) Fading a trend day, and breakout-chasing a range day B) Using a stop loss, and keeping a journal C) Trading micro contracts, and trading the open D) Checking the calendar, and marking your levels

Part 4 — Risk and the Daily Stop (AA3-09)

19. You buy 2 ES contracts at 6,020 with a stop at 6,008. Your total dollar risk is:

A) $600 B) $240 C) $12,000 D) $1,200

20. Your account is $2,500. You risk a 10-point stop on 1 MES contract. The dollar risk — and its share of your account — is:

A) $500 — 20% of the account B) $50 — 2% of the account C) $5 — 0.2% of the account D) $250 — 10% of the account

21. A trader with a $5,000 account risks 1% per trade — $50. Trading MES at $5 per point, how wide a stop can that $50 buy?

A) 1 point B) 5 points C) 10 points D) 50 points

22. A **daily stop** is:

A) The maximum number of dollars you are allowed to lose in one day, set before the session — when you hit it, the platform closes and you are done B) A point target you hope to respect if the day feels wrong C) A limit your broker automatically enforces for every trader in all cases D) The same thing as a per-trade stop, only larger

23. Which statement about **liquidation** is correct?

A) The broker must warn you three times over three days before acting B) Liquidation can only happen at the end of the month C) If your balance falls below the margin required to hold the position, the broker can close your position at whatever price is available — you do not get a vote D) The exchange refunds any loss beyond your margin deposit

24. You opened a day trade using day margin and drift into the close without exiting. What happens?

A) Nothing — day margin quietly continues all night B) The position must now meet the much larger overnight (exchange) margin; if your account cannot support it, the broker liquidates at or before the close C) The position automatically converts into shares of an index fund D) Your stop price is guaranteed to be honored at tomorrow's open

25. The one-contract rule and the scaling doctrine of AA3-09 say:

A) Start with as many contracts as your margin allows — size is free B) Double your size after every losing day so you recover faster C) Decide your size mid-trade, by feel D) Trade one contract until you have a consistent track record; size is earned — added only after proof, from profits

Part 5 — The Routine (AA3-10)

26. Which of these is NOT one of the five pre-session steps in AA3-10?

A) Review the Globex session B) Check the economic calendar C) Write the daily stop before you trade D) Place your first trade before the bell, so you are already in position

27. The first-hour patience rule means:

A) Let the opening range form before committing full size — stay patient while the day shows its hand B) Trade the very first candle of the day with maximum size C) Skip marking the overnight range to save time D) Decide trend or range at 9:31 AM and never revisit the question

28. The midday reassessment asks one question:

A) "How do I get back to even before the close?" B) "Should I double my size for the afternoon?" C) "Is today a trend day or a range day — and does the playbook I am using match?" D) "What is tomorrow's forecast?"

29. The end-of-day review exists to:

A) Predict tomorrow's direction B) Record the day honestly — the trades, whether you called the day type right, and whether you followed your rules — while it is still fresh C) Set tomorrow's profit target D) Replace the weekly review

30. The Friday weekly review focuses on:

A) Patterns across the week — results by day type, your biggest leak, and one fix to carry into next week B) Your total profit, and nothing else C) Choosing next month's broker D) Deleting losing trades from the journal so the record looks clean

> **RULE**
> An exam you pass by guessing teaches you nothing. If a question exposed a gap, that gap is the lesson — re-study the module it points to, then retake.



CU-08

TRACK B
ANSWER KEY

Answers explained, with the re-study map.

Curriculum & Assessment · Team Alpha Trading

Track B Exam — Answer Key

This is the grading key for the **Track B Exam — Futures Day Trading** (Alpha Academy Level 3, modules AA3-06 through AA3-10). Keep it separate from the exam itself — a student should never see this file before (or while) taking the test.

Scoring: 24 or more correct out of 30 = **pass (80%)**. Below 24, use the re-study code at the end of each answer below to find exactly which module to re-read before a retake.

The Answers

- **1. B — Your broker.** Day (intraday) margin is the broker's own reduced deposit for positions opened and closed the same day; it is not set by the exchange and there is no universal dollar figure. Re-study: AA3-06.
- **2. C — The exchange.** Overnight (initial) margin is set by the exchange — the CME for most of these contracts — and it is the larger of the two margins. Re-study: AA3-06.
- **3. C — $300,000.** Notional = price × point value = 6,000 × $50 = $300,000 of index exposure controlled by one contract. Re-study: AA3-06.
- **4. A — $3,000.** A 1% fall from 6,000 is 60 points, and 60 points × $50 per point = $3,000 lost on one contract. Re-study: AA3-06.
- **5. D — $12.50 on ES and $1.25 on MES.** A tick is 0.25 points: 0.25 × $50 = $12.50 on ES, and 0.25 × $5 = $1.25 on MES. Re-study: AA3-06.
- **6. B — A good-faith deposit.** Futures margin is security you post while controlling a much larger contract — it is not a loan, not a purchase price, and not insurance. Re-study: AA3-06.
- **7. A — What happened in the Globex session overnight.** Overnight inventory is the record of who bought and sold while the stock market slept — it frames what the cash session inherits. Re-study: AA3-07.
- **8. C — The overnight high, the overnight low, and yesterday's close.** Those three lines mark the night's battlefield and the level the day is measured against before the first trade is even considered. Re-study: AA3-07.
- **9. A — The high and low of the first part of the session.** The opening range (first 15, 30, or 60 minutes) is a map that later evidence is read against — it predicts nothing by itself. Re-study: AA3-07.
- **10. D — A test-and-reverse open.** Price tested above the overnight high, failed, and fell back inside the night's range — the test was rejected, which is the signature of this open type. Re-study: AA3-07.
- **11. B — It drives one direction and keeps going.** A drive open leaves the open behind with conviction and pullbacks stay shallow — the opposite of a test that fails. Re-study: AA3-07.
- **12. C — Smaller size while the range forms, no chasing the first spike, and respect the 10:00 AM reports.** The first hour is for gathering evidence at reduced risk, and scheduled 10:00 AM data can change the day in seconds. Re-study: AA3-07.
- **13. B — The day's average price, weighted by volume.** Prices where more contracts actually traded count more, which is why VWAP tracks where the day's real business was done. Re-study: AA3-08.
- **14. D — Institutions are benchmarked against it.** Funds working large orders are judged on beating VWAP, so the biggest flow in the market treats it as the fair-value line. Re-study: AA3-08.

- **15. A — A balanced, range-type day.** Repeated VWAP crosses mean no one-sided flow is in control; a trend day refuses to cross and lives on one side. Re-study: AA3-08.
- **16. C — Buy the pullbacks and trail your stop.** Trend days reward joining late strength at a better price and letting the move run — never fading it. Re-study: AA3-08.
- **17. B — Fade the extremes toward the middle, take small targets, and quit when the band breaks and holds.** The range playbook dies the moment price holds outside the band, because the day has changed character. Re-study: AA3-08.
- **18. A — Fading a trend day, and breakout-chasing a range day.** Both mistakes come from playing one day type with the other day's playbook — the most expensive confusion in day trading. Re-study: AA3-08.
- **19. D — $1,200.** Risk = stop distance × point value × contracts = 12 points × $50 × 2 contracts = $1,200. Re-study: AA3-09.
- **20. B — $50, which is 2% of the account.** 10 points × $5 per point = $50 on MES (the same stop on ES would be $500 — 20% of the account). Re-study: AA3-09.
- **21. C — 10 points.** Working the formula backwards: $50 of allowed risk ÷ $5 per point = 10 points of stop distance on MES. Re-study: AA3-09.
- **22. A — A hard dollar limit, set before the session.** The daily stop converts a bad day into an affordable bill; the moment it becomes a negotiation, it is not a stop anymore. Re-study: AA3-09.
- **23. C — The broker can liquidate you at whatever price is available.** Once your balance falls below the required margin, the broker protects itself first — there is no vote and no waiting for a recovery. Re-study: AA3-09.
- **24. B — The position must meet overnight margin, or the broker liquidates it at or before the close.** Day margin ends with the session, and a stop does not protect an overnight position against a gap through it. Re-study: AA3-09.
- **25. D — One contract until the record earns more.** Size is added only after a consistent track record, funded by profits — never after losses and never by feel. Re-study: AA3-09.
- **26. D — Placing a trade before the bell is NOT a pre-session step.** The five steps are: review Globex, mark the overnight range, check the economic calendar, write the daily stop, and choose today's instrument. Re-study: AA3-10.
- **27. A — Let the opening range form before committing full size.** Patience in the first hour is a planned rule, not hesitation — the day shows its hand before you pay full price for the information. Re-study: AA3-10.
- **28. C — "Trend or range — and does my playbook match?"** Midday is when the morning's evidence gets re-judged, because the costliest error is playing the wrong day type all afternoon. Re-study: AA3-10.
- **29. B — Record the day honestly while it is fresh.** The review captures the trades, the day-type call, and whether the rules were followed — the raw material every improvement comes from. Re-study: AA3-10.
- **30. A — Patterns across the week: results by day type, the biggest leak, one fix.** The weekly review trades five blurred days for a few clear patterns and a single repair to carry forward. Re-study: AA3-10.

If You Missed the Mark

- **Questions 1–6 wrong** → re-study **AA3-06** (margin, leverage, contract values).
- **Questions 7–12 wrong** → re-study **AA3-07** (overnight inventory, opening range, open types).
- **Questions 13–18 wrong** → re-study **AA3-08** (VWAP and the two playbooks).
- **Questions 19–25 wrong** → re-study **AA3-09** (the risk formula, the daily stop, liquidation, overnight risk).
- **Questions 26–30 wrong** → re-study **AA3-10** (the pre-session, in-session, and review routines).

> **RULE**
> Grade honestly. A failed exam that sends you back to the right module is worth more than a passed exam built on lucky guesses.



AA3-11

THE SWING FRAMEWORK

Timeframe alignment, two entry families, and sizing for overnight risk.

Alpha Academy Level 3 · Team Alpha Trading

The Swing Framework — Holding for Days

A **swing trade** is a trade you hold for more than a day and less than a season — usually a few days to a few weeks. You are not trying to catch the wiggle of the next ten minutes. You are trying to catch one clean leg of a move: a stock pushing from one level to the next while you hold through the nights in between.

This module takes what Level 2 introduced about swing trading and turns it into a complete, repeatable **framework** — a fixed order of decisions you make the same way every time, so no trade depends on your mood. The framework has four parts: align your timeframes, define the trend in words you can actually see on a chart, enter through one of two well-understood doors, and place your stop and size so that one bad night can never wound your account.

Who this is for: students who finished Levels 1 and 2, who can already read a daily chart, and who want a slower, calmer style of trading that fits around a job and a life. The honest warning comes first, because it shapes everything else in this module: **a swing trade is exposed while you sleep.** Prices can gap — jump from one price to a very different price overnight, with no trading in between — and no stop order can protect you from a gap. That single fact is why swing position sizes must be smaller and stops wider than a day trader's. Most beginners lose money when they start trading, and swing trading is not an exception. The framework below exists to keep those early losses small, planned, and survivable.

> **NOTE**
> Everything in Alpha Academy is education, not financial advice. Examples use round numbers and made-up tickers to teach the mechanics. Nothing here is a recommendation to buy or sell anything.

What a Framework Is — and Is Not

A framework is not a prediction machine. It does not tell you what a stock *will* do. It tells you what **you** will do in each situation: which charts you look at, in what order; what has to be true before you enter; where you are wrong; and how much you are allowed to lose finding out.

That last part matters most. Two traders can buy the same stock on the same day. One has a framework: a planned entry, a planned exit if wrong, a size chosen before the trade. The other has a feeling. When the stock drops, the first trader executes a plan. The second trader makes a scared decision at the worst possible moment. Over a hundred trades, that difference — not talent, not secret knowledge — is most of what separates the traders still standing from the ones who quit.

> **RULE**
> If you cannot write your trade down in four lines — setup, entry, stop, target — before you place it, you do not have a trade. You have a guess.

Three Timeframes, One Job Each

Swing traders work with three charts, and each chart has exactly one job:

Timeframe	Its one job	What you look at
Weekly chart	Direction	Is this stock, overall, going up, down, or sideways over months?

Timeframe	Its one job	What you look at
Daily chart	The setup	Is there a clean place to enter *now*, inside that weekly direction?
Hourly chart (optional)	Timing	Can I fine-tune my entry during the trading day?

The rule that ties them together is simple: **trade WITH the weekly, time it on the daily.** The weekly chart is the current of the river. The daily chart tells you where the banks and the calm water are. You swim with the current and pick your entry spot from the bank — you do not swim against the current and hope to be strong enough.

Why does the weekly get veto power? Because a stock in a strong multi-month uptrend tends to forgive small timing mistakes: dips get bought, breakouts get followed. A stock in a multi-month downtrend does the opposite — rallies get sold, and "cheap" keeps getting cheaper. A beginner fighting a downtrend needs to be right about timing *and* direction. A beginner trading with an uptrend only needs to be roughly right about one of them.

The hourly chart is optional. Many swing traders never open it. If you use it, it has one narrow job — nudging an entry a little — and it is never allowed to overrule the weekly or invent a trade the daily chart does not show.

Defining the Trend in Observable Terms

"The trend is up" is useless unless you can point at the chart and prove it. So define trend with things anyone can see:

- An **uptrend** on a timeframe is a series of **higher highs and higher lows**: each push up goes further than the last push up, and each pullback stops higher than the last pullback stopped. Price stair-steps up.
- A **downtrend** is the mirror: **lower highs and lower lows**. Price stair-steps down.
- **Sideways** is everything else — price bouncing inside a range with no stair-step in either direction.

Averages give you a second, simpler gauge. The **50-day moving average** is the average closing price of the last 50 days; the **200-day moving average** does the same over 200 days. They smooth the stair-steps into two slow lines. A common-sense read:

- Price above a *rising* 200-day average, and above or near the 50-day: the big picture leans up.
- Price below a *falling* 200-day average: the big picture leans down, and long swing trades are fighting the current.
- Price chopping back and forth across both averages: no trend worth swinging.

> **TIP**
> Treat the averages as gauges, not gospel. They describe where price has been; they do not command where it goes next. Plenty of strong uptrends dip below the 50-day average for a few days and recover. Use the averages to confirm what the highs and lows already told you — never as the only reason for a trade.

The weekly check is quick. Open the weekly chart. Stair-steps up, or price riding above a rising 200-day line on the daily? You may look for long setups on the daily chart. Stair-steps down? Stand aside, or wait — there are thousands of stocks, and the framework is allowed to say "not this one."

Entry Family One: The Breakout

A **breakout** entry means buying strength: price pushes up through a level it could not get past before — the top of its recent range, or a new high for the move — and you buy as it goes through, betting the push continues.

Why it can work: a level that stopped price three times holds back a crowd of waiting sellers. When price finally clears it, those sellers are gone, buyers who were waiting for proof step in, and traders who bet against the stock scramble to exit, adding more buying. Breakouts are how many of the biggest multi-week moves begin.

A breakout entry is only valid when all of this is true:

- The weekly trend is up (you are buying strength *inside* strength).
- Price breaks a clear, visible level — not a line you invented to justify the trade.
- You know your invalidation before you enter (below).

Invalidation means the price that proves the idea wrong. For a breakout, the idea is "price cleared this level and will hold above it." The idea is dead if price falls back *below* the level it just broke and stays there. So the stop for a breakout trade typically sits just under the broken level: if the breakout was real, price should not come back and live underneath it.

The honest weakness of breakouts: some are fake. Price pokes above the level, triggers everyone's orders, then falls back — a **failed breakout**. You will take those small losses. They are the membership fee for catching the real ones, and they are exactly why the stop is planned before entry, not negotiated after.

Entry Family Two: The Pullback

A **pullback** entry means buying weakness *inside* strength: the weekly and daily trend are up, price has dipped for a few days toward an area that held it up before, and you buy the dip instead of chasing the high.

The area you buy toward is **support** — a price zone where declines stopped before: a prior low, the bottom of the recent range, a spot price bounced from twice. The logic: in an uptrend, dips toward support are where the stair-step builds its next higher low. You are buying at the staircase's landing instead of at the top of the flight.

A pullback entry is only valid when:

- The higher-timeframe trend is clearly up — a pullback is a dip *within* an uptrend, not a falling stock you hope stops falling.
- Price has actually reached a defined support zone (not "it's down a bit, close enough").
- Price shows the dip is slowing or turning — smaller down days, a day that closes back up — some sign the buyers are showing up at the level.

Invalidation for a pullback is the cleanest in trading: **if price closes below the support you bought, the support failed, and so did the idea.** The stop sits just under the support zone. This is the pullback's great gift — the stop is close to the entry, so the distance you can be wrong is small and known.

The honest weakness: sometimes the dip is not a dip. Sometimes it is the first leg of a real reversal, and support breaks. The stop handles that. What the stop cannot handle is the trader who moves it — "I'll give it a little more room" — turning a planned small loss into an unplanned large one, three nights in a row.

> **RISK**
> The difference between a pullback and a falling knife is only visible afterward. In the moment, they look identical. Your stop — placed before entry, never moved further away — is the only thing that tells them apart in your account.

Where the Stop Lives in a Swing Trade

A day trader's stop can be tight because a day trade is over in hours and the trader is watching. A swing stop must survive normal daily wiggles *and* sit at the level where the idea is truly dead — below the support, below the broken level, below the last higher low. That almost always means a **wider stop in points**. And a wider stop, at the same dollar risk, forces a **smaller position**. This trade-off is not optional; it is arithmetic.

Work it end to end. Say your account is **$25,000** and your rule is to risk **1% per trade**:

- Dollar risk per trade: $25,000 × 1% = **$250**. That is the most this trade is allowed to cost you if you are wrong.
- The setup: a pullback entry at **$80**, with support below at $75, so the stop goes at **$74** — just under the level that must hold.
- Distance from entry to stop: $80 − $74 = **$6 per share**. That is what one share can lose you.
- Position size: $250 ÷ $6 = 41.6, rounded **down** to **41 shares**.
- Total spent: 41 × $80 = **$3,280** of stock. If the stop is hit cleanly, you lose 41 × $6 = **$246** — just under your $250 budget.

Notice what the wide stop did. A day trader risking the same $250 with a $1 stop could hold 250 shares. You hold 41. That is not a defect of swing trading — it is the price of holding overnight, and paying it willingly is what keeps swing traders alive.

Set a target the same disciplined way: aim for a reward that justifies the risk, commonly at least twice the distance to the stop (here, a move to **$92** or beyond — $12 of reward against $6 of risk). If no realistic target offers that, the framework's answer is to skip the trade. There is always another one.

The Overnight Truth: Gap Risk

Everything above assumed your stop fills near its price. In a day trade, that is usually close to true. In a swing trade, it is only *usually* true — and the exceptions are the whole ballgame.

A **stop order** is not a price guarantee. It is an instruction: *when price trades at or through my stop, sell me out at the next available price.* If a stock closes at $78 and opens the next morning at $68 — because of an earnings report, a lawsuit, a market-wide shock — your $74 stop never traded at $74. It becomes a market order at the open and fills near **$68**. Your planned $246 loss becomes roughly 41 × ($80 − $68) = **$492**. The stop still did its job — it got you out automatically, without a decision — but it could not give you a price that never existed.

> **SETUP**
> Size every swing trade as if the stop can be jumped. If a stock leaping 2× past your stop distance would break your risk rule or your sleep, the position is too big — no matter what the clean math said.

Three specific overnight dangers deserve names:

- **Earnings dates.** Public companies report results about four times a year, on scheduled dates anyone can look up. A single-stock swing held through earnings is a coin flip on a gap — the stock can jump or drop 10–20% overnight on the report. The framework's default: know the earnings date before you enter, and treat holding through it as a separate, deliberate decision — never an accident.
- **The whole market gapping.** Sometimes your stock did nothing wrong — the entire market drops overnight on world news, and everything opens lower together. You cannot diversify away from a bad morning entirely, but you can refuse to make it worse (next point).
- **Correlated positions stacking.** Five swing trades in five big technology stocks are not five independent bets — they are, on a bad morning, one giant technology bet that gaps together. Count risk by *theme*, not by ticker. If all your positions would fall for the same reason, together they must fit inside a risk budget you can survive — many traders cap a single theme at 2–3% of the account in total planned risk.

This is also why so many experienced swing traders risk *less* than 1% per trade — 0.5% is common. At 0.5% on the $25,000 account, the worked example above holds 20 shares and a double-jump gap costs about $246 — an annoying morning, not a ruined month.

Common Mistakes at This Level

- **Trading against the weekly trend because the daily "looks cheap."** Cheap stocks in downtrends are the most expensive education in the market. The weekly chart has veto power for a reason.
- **Using day-trade stop distances on a swing trade.** A stop inside the normal daily wiggle gets hit by noise, over and over, even when the idea was right. Swing stops live below structure — and size shrinks to pay for them.
- **Sizing from the clean math only.** Planning for a $246 loss and being unprepared for the $492 gap version is planning for the brochure, not the market.
- **Moving the stop further away at night.** The 11 p.m. decision to "give it room" is fear wearing a strategy's clothes. The stop you set calmly at entry is the trade. Changing it mid-trade is a different, worse trade.
- **Holding through earnings by accident.** Not checking the date is not a neutral choice — it is choosing the coin flip without admitting it.
- **Five tickers, one bet.** Correlated swings that gap together turn a 1%-per-trade rule into a 5% morning.
- **Skipping the written plan when the setup "looks obvious."** The obvious ones are where overconfidence oversizes. Four lines, every time: setup, entry, stop, target.

Chapter Summary

- A swing trade holds days to a few weeks; a **framework** is a fixed order of decisions — timeframe, trend, entry, stop, size — made the same way every time.

- Three timeframes, one job each: the **weekly** sets direction, the **daily** holds the setup, the hourly (optional) only fine-tunes timing.
- **Trade WITH the weekly, time it on the daily.** Fighting the higher-timeframe trend means needing to be right about everything.
- Trend is observable: **higher highs and higher lows** mean up; lower highs and lower lows mean down. The 50-day and 200-day averages are confirming gauges, not gospel.
- Two entry families: the **breakout** (buy strength through a level; dead if price falls back below it) and the **pullback** (buy a dip to support inside an uptrend; dead if price closes below that support).
- Swing stops sit below structure, so they are wider — and a wider stop at fixed dollar risk means a **smaller position**. $25,000 account, 1% risk ($250), entry $80, stop $74 → 41 shares.
- Stops do not protect against **gaps**: a jumped stop fills at the next real price. Size as if the stop can be jumped — many swing traders risk 0.5% for exactly this reason.
- Earnings dates are scheduled landmines; correlated positions stack into one big bet. Check both before every entry.

Check Yourself

1. What is each timeframe's one job in the swing framework?
2. A stock makes higher highs and higher lows on the weekly chart, then dips for four days on the daily chart toward a level that stopped declines twice before. Which entry family fits, and where does the idea die?
3. Your account is $25,000 and you risk 1%. Entry is $80, stop is $74. How many shares do you buy, and what is your planned loss?
4. The stock in question 3 closes at $78, then opens at $68 after a bad earnings report. Roughly what do you actually lose on 41 shares, and why didn't the $74 stop save you?
5. Why does the framework cap total risk by theme instead of just by ticker?

Answers: 1) The weekly chart sets direction, the daily chart holds the setup you actually enter from, and the hourly (if used at all) only fine-tunes timing — it can never overrule the other two. 2) The pullback family: the higher-timeframe trend is up and price is dipping into proven support. The idea dies if price closes below that support, which is where the stop belongs. 3) Risk is $25,000 × 1% = $250; distance to the stop is $80 − $74 = $6 per share; $250 ÷ $6 = 41.6, rounded down to 41 shares; planned loss is 41 × $6 = $246. 4) About 41 × ($80 − $68) = $492. A stop is an instruction to sell at the next available price once triggered — the stock gapped straight past $74 overnight, so the first real price was near the $68 open. 5) Because correlated positions fall together: five same-theme trades gapping down on the same morning behave as one oversized bet, so their combined planned risk has to fit a budget the account can survive.

> **RISK**
> The market does not care that you are asleep. Every swing position is a promise your future self has to keep — so size it, tonight, for the gap you hope never comes.



AA3-12

POSITION TRADING & TREND FOLLOWING

Pyramiding into winners, trailing exits, and why 40% wins can still pay.

Alpha Academy Level 3 · Team Alpha Trading

Position Trading & Trend Following

Position trading is the longest game in trading: you buy something, hold it for weeks or months, and try to ride a large move from start to finish. **Trend following** is the discipline behind it. A **trend** is a price moving in one general direction — up or down — over a long period, the way a river flows one way despite small waves splashing in every direction. A trend follower does not predict where the river will flow. They wait until it is clearly flowing, step in, and stay in until it stops.

This module is for the student who has finished the earlier levels and wants to master the slow arena. You will learn the philosophy that makes it work, how to build a position in stages using a method called pyramiding, how to exit without cutting winners short, and the math that lets this style survive being wrong more often than right.

> **NOTE**
> This is education, not financial advice. Position trading ties your money up for weeks or months, and prices can move against you the whole while — including overnight, when you cannot react. Paper trade the process first, and only ever risk money you can afford to leave alone.

The Longest Game: Weeks to Months, Not Minutes

Every trading style is defined by its clock. A day trader's clock ticks in minutes. A swing trader's clock ticks in days. A position trader's clock ticks in **weeks and months**.

That slow clock changes everything:

- **You make very few decisions.** A position trader might place a handful of trades in a month. Each decision gets hours or days of thought, not seconds.
- **You ignore almost everything.** Daily headlines, small dips, and social media noise are mostly irrelevant to a move that takes three months to play out.
- **Your enemy is not speed — it is doubt.** Over weeks, a position will test your patience many times. Traders who fail at this style usually fail by interfering, not by being too slow.

> **RISK**
> Holding for weeks means holding **overnight and over weekends**, when markets are closed. If bad news hits while the market is closed, price can **gap** — open the next day far above or below where it closed, jumping clean over your exit price. A stop order does not protect you from a gap: it becomes an order to sell at whatever price the market opens at. That is why position size — how much you own — matters more than anything else in this module.

The Philosophy: Cut Losers Fast, Let Winners Run

Trend following rests on one uncomfortable observation: **most of the money in any long stretch comes from a small number of very large moves.** Most stocks, most of the time, wander sideways and go nowhere exciting. Then, occasionally, one takes off and climbs 40%, 80%, 150% over several months. A portfolio built on trend following is a machine for making sure you are on board for those rare, huge moves — and barely hurt by everything else.

That produces the philosophy, in one sentence: **cut losers fast, let winners run.**

- **Cut losers fast** means: when a position moves against you and hits the exit you planned before entering, you sell. No hoping, no "giving it one more week." Losses stay small and boring.
- **Let winners run** means: when a position is working, you do almost nothing. You do not sell just because you are up 10% and feel clever. The whole system depends on a few winners growing far larger than a few percent.

This is the opposite of what feels natural. Most people do exactly the reverse — they hold losers hoping they come back, and sell winners quickly to "lock in" a gain. That feels safe. It is actually a machine for producing small gains and large losses — the one combination that cannot survive.

> **TIP**
> Trend following is gardening, not hunting. You plant many seeds, pull the weeds quickly while they are small, and let the few plants that thrive grow as tall as they want. You do not dig up a healthy plant just because it grew six inches.

Building a Position: Start Small, Then Pyramid

Because nobody knows in advance which trend will be one of the big ones, a position trader does not buy their full size all at once. They build in stages:

1. **The starter position.** A first, deliberately small purchase — often half or less of the full size you would eventually want. Its job is to get you involved while risking the least if you are simply wrong.
2. **Pyramiding. Pyramiding** means adding more shares to a position that is already winning — buying more as price rises and the trend confirms itself. The name comes from the shape: the first purchase is the wide base, and each later purchase is smaller, stacked on top.

Pyramiding has hard rules. Break them and the technique turns from smart to dangerous:

- **Add only to winners.** Never add to a losing position. Adding to a loser because it got cheaper is called *averaging down*, and it makes a bad trade bigger. A pyramid only grows when the market is proving you right.
- **Each add is smaller than the one before.** First buy biggest, each later buy smaller. If the trend suddenly reverses at the top, most of your shares were bought at the lowest prices.
- **Total risk never grows.** Before each add, you raise the exit price (your stop) on the shares you already own, so that if the whole position is exited at the new stop, the total loss is no worse than the risk you accepted on day one — ideally better. The position gets bigger while the danger stays the same or shrinks.
- **Adds happen at planned levels, not on feelings.** Decide in advance roughly where you will add — for example, after price rises and then pulls back to a support level and holds. A **pullback** is a small temporary dip inside a bigger uptrend.

A Worked Pyramiding Example

Meet a fictional stock, ticker **HLX**, and a trader whose plan allows a maximum risk of **$600** per position idea. **Risk** here means: if the trade fails and the exit is hit, how many dollars are lost.

Step 1 — the starter. HLX is breaking upward out of a long flat base at **$50**. The trader buys **100 shares** at $50, spending $5,000. Her planned exit is **$44** — below the base, where the idea is clearly wrong. Risk per share is $50 − $44 = **$6**, so total risk is 100 × $6 = **$600**. Exactly on plan.

Step 2 — the first add. Over the next few weeks HLX climbs to **$60**, pulls back to $56, and holds — the trend is proving itself. She adds **60 shares** at $60, spending $3,600. She now owns 160 shares for a total cost of $5,000 + $3,600 = **$8,600**. Her **average price** — total dollars spent divided by total shares — is $8,600 ÷ 160 = **$53.75** per share. Now the key move: she raises the exit on *all* shares to **$54**, just below the pullback low. If everything exits at $54, she receives 160 × $54 = **$8,640** — slightly *more* than she spent. Her worst case went from losing $600 to roughly breaking even. The position grew; the risk did not.

Step 3 — the second add. HLX pushes on to **$72**. She adds a final **40 shares** at $72, spending $2,880. She now owns 200 shares, total cost $8,600 + $2,880 = **$11,480**, average price $11,480 ÷ 200 = **$57.40**. She raises the exit on everything to **$63**, below the newest support. If everything exits at $63, she receives 200 × $63 = **$12,600** — locking in a profit of $12,600 − $11,480 = **$1,120** even in the worst case.

Stage	Buy	Shares after	Total spent	Average price	Exit for all	Worst case
Starter	100 @ $50	100	$5,000	$50.00	$44	−$600
First add	60 @ $60	160	$8,600	$53.75	$54	about $0
Second add	40 @ $72	200	$11,480	$57.40	$63	+$1,120 locked

Read the shape of that table until it feels obvious: **100, then 60, then 40** — each add smaller. Price rose, size grew, and the worst case improved at every step. That is pyramiding done correctly. Done wrong — equal or bigger adds, or adding without raising the exit — it just builds a bigger position with a bigger possible loss, the opposite of the point.

> **RULE**
> Add only to winners, each add smaller than the last, and never let an add increase the total dollars you can lose. If an add makes your worst case worse, it is not a pyramid — it is a gamble stacking on top of a guess.

Exits: How Trend Followers Leave

Entering is the easy half. This style lives or dies on its exits, and trend-following exits share one trait: **they are triggered by the trend ending, not by a profit target.**

Trailing by structure

A **trailing exit** is an exit price that moves as the trade works — always in your favor, never backward. The structure version works like the pyramid example above: each time price makes a new higher swing low (a dip that bottoms out higher than the previous dip), the exit moves up to just below that low. As long as price keeps making higher highs and higher lows, you stay in. When price finally falls through the most recent low, the pattern is broken and you are out — usually with a large gain, because you gave the trend months to run.

Trailing by a long moving average

A **moving average** is the average of a stock's closing prices over a set number of days, recalculated daily — a smoothed line showing overall direction without the daily jaggedness. Position traders often use a long one, such as the 200-day or 50-day average, as their exit line: hold while price stays above the line, exit when price closes below it. The line trails upward behind a healthy trend automatically, and the decision is made by the rule — not by your mood on a red day.

Time exits

Sometimes a position does nothing. It does not hit your exit, and it does not trend — it just sits near your entry for six, eight, ten weeks. A **time exit** is a planned deadline: if the position has not started working by a set date, close it and free the money. Dead money is a real cost, because cash parked in a sleeping position cannot be in the next real trend. Decide the deadline before you enter, while you are calm.

Why there is no small fixed target

Notice what is missing: a rule like "sell when I'm up 10%." A fixed small target **amputates the winners that pay for everything.** Remember the philosophy — a few huge moves fund the whole system. If HLX runs from $50 to $95 over four months, a 10% target sells at $55 and captures $5 per share of a $45 move. Repeat that habit for a year and you have traded a system that needed a few +$4,000 winners for one that only collects +$500 wins — while eating the same −$300 and −$600 losses. The next section shows why that cannot survive.

> **RISK**
> Trailing exits guarantee one thing people hate: you will never sell at the very top. A trend that peaks at $95 might trigger your exit at $84. That give-back is not a flaw — it is the price of catching the move at all. A trader who cannot accept giving back the last stretch should not use this style.

The Math of Trend Following: Being Wrong a Lot, on Purpose

New students assume a working system must be right most of the time. Trend following is the clearest proof that this is false. What matters is not how often you win — it is **expectancy**: the average dollar result per trade over many trades, after wins and losses are both counted.

Expectancy = (win rate × average win) − (loss rate × average loss).

Suppose a position trader takes 10 trades with these results: she wins only 4 of them — a **win rate of 40%** — but because losers are cut fast and winners are allowed to run, her average win is **+$900** and her average loss is **−$300**.

- The 4 winners: 4 × $900 = **+$3,600**
- The 6 losers: 6 × $300 = **−$1,800**
- Net over 10 trades: $3,600 − $1,800 = **+$1,800**
- Expectancy: $1,800 ÷ 10 = **+$180 per trade**

She was wrong 60% of the time and the system still made money, because the average win was three times the average loss. Now flip the sizes — same 40% win rate, but winners sold early at +$300 and losers held to −$900: 4 × $300 = $1,200 against 6 × $900 = $5,400, a net of **−$4,200**. **The ratio of win size to loss size is the engine; the win rate is almost a detail.**

Over 10 trades	Wins	Losses	Net
Let winners run (avg +$900 / −$300)	4 wins = +$3,600	6 losses = −$1,800	+$1,800
Cut winners early (avg +$300 / −$900)	4 wins = +$1,200	6 losses = −$5,400	−$4,200

This also tells you what a normal stretch feels like: losing streaks of four, five, or six trades are ordinary weather for this style — not evidence the system broke. Traders who quit mid-streak never stay long enough to meet the big trends that pay for the year.

> **NOTE**
> Single stocks add one more landmine to long holds: **earnings reports** — the scheduled dates, usually four times a year, when a company announces its results. Prices often jump violently, up or down, on those dates. Know every earnings date for every stock you hold, and decide *before* the date whether your plan holds through it. "I didn't know earnings were Tuesday" is not a plan.

The Psychology of the Slow Game

The mechanics above fit on one page. Almost everyone who fails at this style fails on the human side.

Sitting through pullbacks in a winner. A stock that climbs from $50 to $95 will not go straight up. It will dip 8%, 12%, sometimes more, several times along the way, and every dip will feel like the end. Your trailing exit sits *below* those normal dips by design — so your job during dips is to do nothing while your account value shrinks for days. That is the actual work of this style, and it is genuinely hard.

Boredom. Weeks will pass where the correct action is no action. There is no daily puzzle and no scoreboard lighting up — and bored traders invent trades, which are usually bad ones. Position traders need a weekly review routine and a journal habit to fill the space that action fills for faster traders.

Watching day traders. While your timeframe is weeks, you will see people post exciting intraday wins — fast money, big screenshots, daily drama. Some of it is real, much of it quietly excludes their losses, and none of it is your game. Comparing a three-month trend hold to an eight-minute scalp is like a marathon runner envying a sprinter mid-race: different event, different finish line. The trend follower's excitement arrives rarely and all at once — the month a position held quietly for ten weeks finally accelerates.

> **TIP**
> Write your exit and add rules on paper before you enter, and keep a weekly journal entry for each open position: price, where my exit is, anything changed? Reviewing the plan in writing is what carries most traders through the pullbacks and the boredom.

Common Mistakes at This Level

- **Averaging down and calling it pyramiding.** Adding to a loser is the exact opposite of the method. Pyramids only grow upward, into strength.
- **Adding equal or larger amounts.** The shape must taper — biggest first, each add smaller — or a late reversal hands back everything.

- **Adding without raising the exit.** If the worst case grows when the position grows, total risk is out of control.
- **Selling winners at small fixed targets.** A 10% target on every trade quietly deletes the few huge winners the entire system depends on.
- **Holding five positions that are secretly one bet.** Five large technology stocks are not five separate trends — they will fall together. Correlated positions stack risk, so treat a group of look-alike holdings as one bigger position when you size.
- **Quitting during a normal losing streak.** With a ~40% win rate, five straight losses are routine. Quitting there means paying all the costs of the system and collecting none of its payoff.
- **Checking prices every hour.** A weeks-long timeframe judged on hourly prices produces constant false alarms and emotional exits. This style is reviewed in weekly decisions, not minute-by-minute feelings.

Chapter Summary

- Position trading holds for weeks to months; trend following means joining a move underway and staying until it ends, not predicting it.
- The philosophy is: **cut losers fast, let winners run** — because a few very large trends produce most of the returns.
- Positions are built in stages: a small starter, then pyramiding — adding only to winners, each add smaller, with the exit raised so total risk never grows.
- In the worked example, 100 shares at $50 plus adds of 60 at $60 and 40 at $72 built a 200-share position at a $57.40 average, while the worst case improved from −$600 to a locked +$1,120.
- Exits trail the trend — by structure (below the latest swing low), by a long moving average, or by time when nothing happens — never by a small fixed profit target.
- The math works at a 40% win rate when the average win ($900) is much larger than the average loss ($300): expectancy of +$180 per trade.
- The hard part is psychological: enduring pullbacks, tolerating boredom, and ignoring faster traders' highlight reels.
- Gaps overnight and earnings dates are standing hazards of long holds — size and plan for them in advance.

Check Yourself

1. In one sentence, what is the philosophy of trend following?
2. A trader buys 100 shares at $40 and later adds 50 shares at $50. What is her average price, and what is the total spent?
3. What are the three hard rules of pyramiding?
4. Why does this style refuse to use a small fixed profit target, like selling at +10%?
5. A system wins 40% of the time, with an average win of +$900 and an average loss of −$300. Over 10 trades, what is the net result and the expectancy per trade?

Answers: 1) Cut losers fast and let winners run — most returns come from a few big trends. 2) Total spent is 100 × $40 + 50 × $50 = $4,000 + $2,500 = $6,500 for 150 shares, so the average price is $6,500 ÷ 150 ≈ $43.33. 3) Add only to winners, make each add smaller than the one before, and raise the exit as you add

so total risk never grows. 4) Because a few huge winners pay for all the small losses — a small fixed target cuts those winners off early and the math stops working. 5) Winners: 4 × $900 = $3,600. Losers: 6 × $300 = $1,800. Net = $3,600 − $1,800 = +$1,800, so expectancy is $1,800 ÷ 10 = +$180 per trade.

> **RULE**
> Small losses, big winners, no exceptions — cut what is not working, pyramid only into what is, and let the rare big trend pay for everything else.



AA3-13

SWINGING WITH OPTIONS

LEAPS, verticals, and covered calls — structures matched to multi-week horizons.

Alpha Academy Level 3 · Team Alpha Trading

Swinging With Options — LEAPS, Verticals & Covered Calls

A swing trade is a position you hold for days to weeks — sometimes a few months — because you expect a move that takes time to play out. Options can be excellent swing tools, but only if the structure matches the timeframe. The most common way beginners blow up with options is not picking the wrong direction. It is picking an option that expires before the move happens, or paying so much time decay that even a correct idea loses money.

This module masters the four options structures built for multi-week horizons: **LEAPS** (very long-dated options), **vertical debit spreads**, **covered calls**, and the **poor man's covered call**. You will learn what each one costs, what each one caps, and how to choose an expiration date that gives your idea time to work. Every structure here comes with its real dollar math — including the honest downsides, because every one of these trades has one.

> **NOTE**
> Everything in Alpha Academy is education, not financial advice. Options involve real risk of loss, and any option you buy can expire worthless. Paper trade each new structure before it touches real money, and check your broker for current contract details, fees, and margin rules.

First: Why Timeframe Changes Everything

In Level 1 you learned that every option has an **expiration date** — the day the contract stops existing — and that options lose value to **theta**, the daily time decay that melts an option's price as expiration approaches. Theta is gentle when expiration is many months away and brutal when it is days away.

That single fact drives this whole module. A day trader can survive fast decay because the trade is over in hours. A swing trader holding for three weeks cannot. If you buy a cheap option that expires in five days for a move you expect over a month, you have built a trade that fights you every single day it sits open. The four structures below are the standard answers to that problem: they either buy a lot of time, cap the cost of time, or turn time decay into something that works *for* you instead of against you.

> **RISK**
> The defining risk of swing trading is the overnight **gap** — the stock opening far from where it closed, because of news or earnings released while the market was shut. A stop order does not protect you from a gap; it simply becomes a market order at the open, at whatever price the stock starts trading. Every position in this module is sized with gaps in mind.

LEAPS: Stock-Like Exposure for a Fraction of the Capital

LEAPS stands for Long-term Equity Anticipation Securities. A LEAPS is simply an option contract with a very long life — typically expiring **6 to 24 months** in the future. A LEAPS call gives you the right to buy 100 shares at the **strike price** (the agreed price written into the contract) at any time until that far-off expiration. Because so much time remains, theta decay is slow. Because the strike is usually chosen deep **in the money** — well below the current stock price — the option's price moves almost like the stock itself.

Traders measure that "moves like the stock" quality with **delta**, the Greek that estimates how much an option's price changes when the stock moves $1. A share of stock has a delta of exactly 1.00. A LEAPS call bought with a delta of **0.70 to 0.90** gains roughly 70 to 90 cents for every $1 the stock rises. That is close

to owning the stock — without paying for the stock.

The worked example

Imagine a stock trading at **$200** per share.

- Buying **100 shares** costs $200 × 100 = **$20,000**. Every $1 the stock moves changes your position value by $100.
- Buying **one LEAPS call** with a 0.80 delta, expiring in about a year, costs a **premium** (the price of the option) of **$38.00** per share. Options trade in contracts of 100 shares, so the real cost is $38.00 × 100 = **$3,800**.

You now control the same 100-share move for $3,800 instead of $20,000 — about one-fifth of the capital. If the stock rises $10 over the next two months, the shares gain $1,000. The LEAPS, at 0.80 delta, gains roughly $8 per share of underlying move, or about **$800** per contract — close to the stock's gain, on far less money. That capital efficiency is the entire appeal.

The honest costs of LEAPS

LEAPS are not free stock. They carry real disadvantages, and you must be able to name all of them:

- **Wider bid-ask spreads.** The **bid-ask spread** is the gap between what buyers offer and sellers ask. Long-dated options trade less actively, so that gap is wider — you might pay $38.00 for a contract you could immediately resell for only $37.20. You start every LEAPS trade slightly underwater, and closing early costs you again.
- **Theta still exists.** Decay is slow, not zero. A one-year LEAPS might lose a few cents per contract per day early on — and decay accelerates in its final months, exactly like any other option.
- **It can still expire worthless.** If the stock finishes below your strike at expiration, the LEAPS is worth zero and the full $3,800 is gone. The stockholder who paid $20,000 still owns shares worth something. You own nothing.
- **No dividends, no voting rights.** A **dividend** is a cash payment a company sends its shareholders. LEAPS holders are not shareholders, so they receive no dividends and cannot vote.
- **Your breakeven is higher.** The call only profits at expiration if the stock finishes above strike + premium. Deep in-the-money strikes keep most of the premium as real, stock-like value rather than pure time value, which is exactly why swing traders choose high-delta LEAPS — but the premium is still a hurdle the stock must clear.

> **TIP**
> When you price a LEAPS, look at how much of the premium is time value. Price the stock at your strike: the amount of the premium above the stock's current distance past the strike is what you are paying purely for time. Less time value means the LEAPS behaves more like stock and has less to melt away.

Vertical Debit Spreads: Cheaper, Defined, and Capped

A **vertical debit spread** combines two options with the same expiration but different strikes: you buy one option and sell another, further from the money, in the same trade. For a bullish swing, the classic version is a **call debit spread** — buy a call at a lower strike, sell a call at a higher strike. The sold call pays you part of the cost of the bought call. In exchange, your profit stops growing at the higher strike.

Say a stock trades at $100 and you expect a rise over the next six weeks.

- Buy the **$100 call** expiring in about 45 days for $4.00 → cost $400.
- Sell the **$110 call**, same expiration, for $1.50 → you collect $150.
- Net **debit** (what you pay to open) = $4.00 − $1.50 = $2.50 → **$250** per spread.

The payoff rules are fixed on the day you enter:

Outcome at expiration	What the spread is worth	Your result
Stock finishes at or below $100	$0	Lose the full $250 debit
Stock finishes at $105	$5.00 per share = $500	Gain $250
Stock finishes at or above $110	$10.00 per share = $1,000	Gain $750 (the maximum)

The three numbers to know cold: **maximum loss = the debit paid** ($250). **Maximum profit = the width of the spread minus the debit** — here ($110 − $100) − $2.50 = $7.50, or $750. **Breakeven = the lower strike + the debit** — $100 + $2.50 = $102.50.

Why swing traders like this structure: the sold leg means a large part of your bought option's theta decay is offset by decay on the option you sold. The spread still loses value if the stock goes nowhere, but far more slowly than a naked bought call with the same expiration. Why they respect it: the cap is real. If the stock rockets to $130, your spread is still worth $1,000 and not a cent more. You traded away the home run in exchange for paying less and decaying slower. For most planned, measured swing ideas — "I expect it to reach this zone over the next month" — that is a fair and honest trade.

Covered Calls: Renting Out a Position You Already Own

A **covered call** starts from ownership. You hold at least 100 shares of a stock, and you **sell** a call against those shares — someone pays you a premium for the right to buy your shares at the strike price before expiration. It is called "covered" because your shares cover the obligation: if the buyer exercises, you simply hand over shares you already have. There is no scrambling to buy them.

The worked example

You own **100 shares** bought at **$50**, now trading at $52. You sell one call with a **$55 strike** expiring in about a month, and collect a premium of **$1.20** — that is **$120** cash into your account today.

- If the stock stays below $55, the call expires worthless. You keep the $120 and still own your shares. Many investors repeat this month after month.
- If the stock rises to $58, the call is exercised. Your shares are **assigned** — automatically sold — at $55 each. Your total take: $55 sale price + $1.20 premium = $56.20 per share, even though the stock reached $58. You profited, but the top of the move belonged to the call buyer.
- If the stock falls to $44, the premium softens the blow by exactly $1.20 per share — your effective position is down as if the stock were at $45.20. The $120 is a cushion, not a shield. You still lost most of the drop.

That is the whole honest picture: **a covered call is income in exchange for capping your upside.** It shines in flat-to-slightly-up markets and disappoints in strong rallies, where you watch your shares get called away below the market price. It does not protect you from a crash. And assignment is a real event, not a technicality — when it happens, your shares are gone at the strike price, possibly before an ex-dividend

date if the call buyer wants the dividend. Sell covered calls only on shares you are genuinely willing to part with at that strike.

> **RULE**
> Never sell a covered call at a strike you would regret. If watching the stock trade $10 above your strike while your shares leave at the strike would make you chase it back higher, the premium was never worth it.

The Poor Man's Covered Call: The Same Idea Without the Shares

The **poor man's covered call** — also taught under its structural name, a **diagonal spread**, because the two options differ in both strike and expiration — imitates a covered call without buying 100 shares. You buy a deep in-the-money LEAPS call (delta around 0.70–0.90, expiring 6–24 months out) to act as your "shares," then sell short-dated calls against it, month after month, the way a shareholder sells covered calls. The LEAPS from our earlier example cost $3,800 instead of $20,000 in stock, which is where the "poor man's" name comes from — similar exposure, far less capital tied up.

Be honest with yourself about its extra risks before using it. The LEAPS you depend on **still expires**, so unlike permanent shares, your "position" has a deadline and its value bleeds to zero if the stock finishes under the strike. If the stock runs hard through your short call's strike, the short call can be assigned, and handling that assignment against a LEAPS instead of shares can involve exercising or closing the LEAPS at an awkward moment — possibly realizing less value than the simple stock version would have given you. And because the two legs expire at different times, the position's behavior is harder to predict than a plain covered call. It is a legitimate, widely used structure — but it is a covered call with training wheels removed, not added. Master the plain version first.

Choosing the Expiration: Buy Time, On Purpose

Every structure above lives or dies on one decision: **which expiration you buy.**

Start from your idea, not from the option chain. Write down the window in which you expect the move — "this should play out over the next four to six weeks." Then choose an expiration **beyond** that window, with a buffer. If your window ends in six weeks, an expiration seven or eight weeks out is the minimum sensible choice; many swing traders take the next monthly expiration after that. The reasons are mechanical, not superstitious:

- Theta accelerates as expiration nears. The buffer keeps you out of the fast-decay zone while your idea is still supposed to be working.
- Ideas are usually right about direction more often than about timing. The buffer is what lets a move that arrives two weeks late still pay you.
- A spread or LEAPS you plan to close *before* expiration keeps most of its flexibility. One held into its final days becomes a bet on this week's price, which is no longer your swing idea at all.

Earnings inside the window are a decision, not an accident. An **earnings report** is a company's scheduled quarterly scorecard, and single stocks routinely gap 5–15% overnight on it. If a company's earnings date falls inside your holding window, you are making two bets at once: your swing idea *and* the earnings reaction. Sometimes that is exactly what you want. Often it is a landmine you walked into because you never checked the date. Check it before entry, every time, and say out loud which choice you are making. The same goes for LEAPS on a single company: two years of patience can still be repriced in one evening.

Finally, match the tool to the horizon one more time. Expecting a move in two to six weeks? A vertical debit spread with an expiration past your window is usually the cleanest expression — defined cost, slower decay, a target built into the structure. Expecting a slow trend over many months, in a name you would happily hold as stock? That is LEAPS territory, or shares with covered calls. Expecting income from something you already own and are willing to sell at a set price? Covered calls. The structure is never the first decision. The horizon is.

Common Mistakes at This Level

- **Buying short-dated options for a long idea.** A five-day option on a five-week thesis is a donation to theta, no matter how good the analysis is.
- **Buying LEAPS far out of the money to make them "cheap."** A low-delta LEAPS is mostly time value. It decays like a lottery ticket wearing a suit — slowly, but toward the same zero.
- **Ignoring the bid-ask spread on long-dated contracts.** Paying $38.00 for something bid at $37.20 means you need the stock to move just to break even on the exit. Use limit orders and check the spread before entering.
- **Selling covered calls on shares you refuse to sell.** The premium feels free until assignment takes a position you loved at a price you hate.
- **Forgetting the earnings date.** Holding any single-stock swing — shares, spreads, or LEAPS — through an earnings report you never looked up.
- **Holding a spread into its final days out of hope.** A debit spread near expiration with the stock below your long strike is not "about to come back." Its remaining value is mostly the time you failed to buy at entry.
- **Stacking correlated swings.** Five option swings in five similar technology names is not diversification. It is one large bet wearing five costumes, and one bad week takes all of them together.

Chapter Summary

- Options structures must match the horizon: swing trades die when the option expires before the idea plays out.
- LEAPS are calls expiring 6–24 months out. A high-delta (0.70–0.90) LEAPS mimics stock exposure for a fraction of the capital — $3,800 instead of $20,000 in the worked example.
- LEAPS still carry wider spreads, slow-but-real theta decay, no dividends, and a total-loss outcome if the stock finishes below the strike.
- A vertical debit spread buys one option and sells a further one at the same expiration. Max loss = the debit paid; max profit = spread width − debit; breakeven = long strike + debit.
- A covered call sells a call against 100 owned shares: real income today, in exchange for capping your upside at strike + premium, with only a small cushion against a fall.
- The poor man's covered call replaces the shares with a LEAPS and sells near calls against it — capital-efficient, but the LEAPS expires and assignment handling is messier.
- Choose expiration beyond your expected move window, plus a buffer. Earnings falling inside the window must be a deliberate decision, never a surprise.

Check Yourself

1. In the worked example, a stock trades at $200 and a 0.80-delta LEAPS costs $38.00. What does one contract cost, and roughly how much does it gain if the stock rises $10?
2. A call debit spread has a $100 long strike, a $110 short strike, and a $2.50 debit. What are the maximum loss, maximum profit, and breakeven?
3. You own 100 shares and sell a $55-strike covered call for $1.20. The stock finishes at $58. What do you end up with per share, and what did you give up?
4. What is the poor man's covered call built from, and name one risk it has that a regular covered call does not.
5. Your swing idea should play out over four to six weeks, and the company reports earnings in week three. What two decisions must you make before entering?

Answers: 1) One contract costs $38.00 × 100 = $3,800. At 0.80 delta it gains roughly $0.80 per $1 of stock movement, so a $10 rise is worth about $800 per contract — close to the $1,000 the 100 shares gain, on about one-fifth of the capital. 2) Maximum loss = the debit, $250. Maximum profit = ($110 − $100) − $2.50 = $7.50 per share, or $750. Breakeven = $100 + $2.50 = $102.50. 3) Your shares are assigned at the $55 strike, and you keep the $1.20 premium — $56.20 per share in total. You gave up everything above $55: the stock reached $58, but the last $3 belonged to the call buyer (less the premium, your effective sale price is $56.20). 4) It is built from a deep in-the-money, high-delta LEAPS call as the share substitute, plus short-dated calls sold against it. Extra risks include: the LEAPS expires and can bleed to zero (shares don't expire), and an assignment on the short call must be handled against an option position rather than shares, which can force an awkward exit. 5) First, choose an expiration beyond your six-week window plus a buffer, so normal timing error and accelerating theta don't kill the trade. Second, decide deliberately whether you are willing to hold through the week-three earnings report — an overnight gap event — or whether you will exit before it; holding through earnings by accident is not a plan.

> **RULE**
> Buy time first, direction second. Pick the expiration that outlives your idea — with room to spare — then choose the structure. A right idea in a too-short option is still a losing trade.



AA3-14

MANAGING A BOOK OF SWINGS

Total open risk, the correlation trap, and the earnings calendar audit.

Alpha Academy Level 3 · Team Alpha Trading

Managing a Book of Swings

A **swing position** is a trade you hold overnight, usually for several days or a few weeks, hoping to capture a larger price move than a day trade. A **book** is every open position in the account viewed together as one combined unit of risk.

One swing can be planned carefully and still be safe. Five swings can look reasonable one by one and quietly become one oversized bet. Managing a book means knowing how much you could lose if every stop is reached, which positions would probably fall together, and which scheduled events could hit you next.

> **NOTE**
> This module teaches risk organization, not a trading method and not financial advice. The percentages below are common planning guidelines, not laws and not promises that losses will stay inside them. Overnight **gaps** — openings far above or below the prior close, with no trading at the prices in between — can carry a stock straight through a stop and make the real loss larger than the planned loss.

Start With One Position's Dollars at Stop

Your **position size** is how many shares you own. A **stop order** is an order placed in advance that is meant to trigger an exit if price reaches a chosen level. For a stock you own, reaching the stop triggers a sale, but it does not guarantee the sale will happen exactly at that price.

The basic calculation is:

Dollars at stop = (entry price − stop price) × shares

Imagine a $50,000 account. You decide that one swing may risk 1% of the account:

- 1% of $50,000 = $500
- Entry price = $80
- Stop price = $76
- Distance to the stop = $80 − $76 = $4 per share
- Maximum shares for a $500 planned risk = $500 ÷ $4 = 125 shares

You buy 125 shares for $10,000. If the stock later trades at $76 and the stop fills there, the loss is:

($80 − $76) × 125 shares = $500

That $500 is the position's **dollars at stop**. It is more useful than saying "I own $10,000 of stock." The $10,000 is the position's market value. The $500 is what the plan says you lose if the exit works as expected.

The gap warning matters. If bad news appears overnight and the stock opens at $70, a stop cannot sell at $76 because the stock never traded there that morning. The loss from the $80 entry would be about $10 per share × 125 shares = $1,250, before fees. A stop is an exit trigger, not price insurance.

If a position has no exit level, its dollars at stop are unknown. Do not record it as zero; the book total is incomplete.

Add Every Stop: Total Open Risk

Total open risk is the sum of the dollars at stop for every open swing in the book. Do not subtract one position's profit from another position's possible loss. A winner can reverse, and the loser can still reach its stop.

Use the current stop and the shares still held. If you sold part of a position, count only the remaining shares. If you moved a stop closer, use the new stop. If you moved it farther away, the honest new — larger — risk is what counts.

Here is a $50,000 book with five positions:

Position	Risk per share	Shares	Dollars at stop
Stock A	$6.00	80	$480
Stock B	$4.00	125	$500
Stock C	$2.50	160	$400
Stock D	$10.00	40	$400
Stock E	$2.00	200	$400

Add the last column:

$480 + $500 + $400 + $400 + $400 = $2,180

As a percentage:

$2,180 ÷ $50,000 = 4.36%

If all five stops are reached under normal conditions, the planned damage is about 4.36% of the account. That is the first number a swing trader should know without guessing.

Many traders use a **cap**, a self-imposed maximum, of roughly 4% to 6% of the account for total open swing risk. Treat that range as a common guideline, not a law. Volatile stocks, many earnings reports, or limited experience may justify much less. Choose the limit in calm conditions, write it down, and obey it when several attractive trades appear at once.

A 5% cap on a $50,000 account allows $2,500 of total stop risk. If each full position risks 1%, or $500, the cap permits only five full-size positions. A sixth full-size position is not “just one more.” It breaks the book's design.

A special case needs honesty: if a stop has been moved to the entry price, the formula may show $0 at stop. Call that **planned stop risk near zero**, not “risk-free.” A gap through the entry can still produce a loss.

The Correlation Trap

Correlation means two or more positions tend to rise or fall in response to the same force. **Correlated positions** do not need to be the same company. They only need the same driver.

A **sector** is a broad group of related businesses, such as technology, energy, or health care. An **industry** is a narrower group inside a sector. Semiconductor companies and software companies are different technology industries, but both belong to the technology sector.

Suppose you hold five technology swings. Each one risks 1% of a $50,000 account:

- Tech Stock A: $500 at stop
- Tech Stock B: $500 at stop
- Tech Stock C: $500 at stop
- Tech Stock D: $500 at stop
- Tech Stock E: $500 at stop

Five tickers suggest variety. The risk says otherwise:

5 × $500 = $2,500

That is 5% of the account riding on one sector. If technology stocks fall together after an interest-rate surprise, a major earnings disappointment, or a broad market selloff, all five can approach their stops in the same day or week. Five separate 1% risks have become one giant 5% technology bet.

Gaps can make it worse. If each position loses twice its planned amount because prices jump through stops, the combined loss becomes about $5,000, or 10% of the account. Treat that as a stress check, not a prediction.

Before calling a book diversified, ask one question for every position: **What single headline could hurt this trade?** If the same answer appears five times, you do not have five independent risks.

The same trap appears outside technology:

- Several airlines, hotels, and cruise companies can all depend on travel spending.
- Homebuilders, lumber suppliers, and mortgage lenders can all be hurt by rising interest rates.
- Oil producers with different names can all fall when crude oil falls.

Diversification means spreading risk across genuinely different drivers. Counting ticker symbols is not diversification.

Use Sector and Industry Caps

A total-book cap is not enough. A $50,000 account could stay under a 5% total cap while putting the entire 5% into one sector. Add smaller caps inside the book.

The figures below are an example framework, not a rule every trader must use:

Risk bucket	Example cap	Dollar cap on $50,000
One swing position	1%	$500
One industry	2%	$1,000
One sector	2.5%	$1,250
Whole swing book	5%	$2,500

With these example caps, five technology positions at $500 each would total $2,500 of sector risk. That would break the $1,250 sector cap even though it exactly met the whole-book cap. Only $1,250 of technology stop risk would be allowed — for example, two full-size positions plus one half-size position, assuming the industry caps also allowed them.

Use both sector and industry limits because concentration can hide at either level. Three semiconductor stocks may break an industry cap. Adding two software stocks may pass separate industry caps but break the technology sector cap. Stocks from different sectors can also share a driver, such as high borrowing costs or consumer spending, so note each position's main driver in plain English.

Write the caps before you need them. A cap invented after a tempting trade appears is usually just a permission slip. When caps disagree, the **most restrictive** one wins: if the whole book has $400 of room but the sector has only $150, the sector room is $150.

Run an Earnings Calendar Audit

An **earnings report** is a company's scheduled release of results such as sales and profit. Traders often call the release the **print**. For a single-stock swing, earnings are a scheduled landmine: the stock can jump or fall sharply as soon as the numbers appear, including after the close or before the next open.

An **earnings calendar audit** is a written check of every holding's next earnings date and the decision you will make before that release. Never learn that a holding reported earnings by reading the headline afterward.

For every open stock position, record:

- Company and ticker
- Earnings date
- Release time, if known: before the open or after the close
- Your planned exit date or review date
- Decision: hold, reduce, or exit before the print
- Reason for that decision
- Dollars at stop after any planned reduction

Broker calendars are convenient, but dates can move and listings can be wrong. Cross-check important dates with the company's **investor relations** page — its official page for shareholder information — or another reliable calendar source. Recheck during the weekly review.

Here is a simple audit:

Holding	Earnings timing	Decision before the print	Reason
Stock B	In 4 days, after the close	Reduce	Event arrives before the planned holding period ends
Stock D	In 18 days, before the open	Hold for now	Print is outside the current plan; decision is due at the next review
Stock F	Tomorrow, after the close	Exit	Trader does not want binary event risk in this position

Binary event risk means one scheduled announcement can cause an unusually large move in either direction. You do not need to predict whether the report will be “good” or “bad.” Strong numbers can still disappoint investors who expected even more.

A Worked Reduce-or-Exit Decision

You own 125 shares bought at $64, with a stop at $60. The planned stop risk is:

($64 − $60) × 125 = $500

Earnings arrive tomorrow after the close. You decide the position is otherwise sound, but you do not want the full event exposure. Before the print, you reduce the holding to 60 shares.

The remaining stop risk becomes:

($64 − $60) × 60 = $240

Reduction lowers the exposure, but it does not make the stop dependable during the announcement. If the stock opens at $54 the next morning, the loss on the remaining 60 shares, measured from the $64 entry, would be about:

($64 − $54) × 60 = $600

Had all 125 shares been held, the same opening would mean about $1,250 of loss. Reducing cut the damage, but the loss still exceeded the $240 stop calculation. That is why holding through earnings must be sized for a possible gap, not merely for the distance to the stop.

Exiting before the print is also valid. So is holding a deliberately smaller position. The unacceptable choice is drifting into earnings with no decision at all.

Add a New Position Only When the Book Has Room

Available cash is not available risk. It may show that you can buy a stock; it does not prove the account can afford another loss.

Before adding any position, calculate four kinds of room:

1. **Total room:** whole-book cap minus current total open risk.
2. **Sector room:** sector cap minus current risk in that sector.
3. **Industry room:** industry cap minus current risk in that industry.
4. **Single-position room:** maximum risk allowed for one new position.

Use the smallest room. Then size the trade from that amount.

Return to the five-position book above. Its total open risk is $2,180. Under a 5% cap on $50,000, the whole-book cap is $2,500:

$2,500 − $2,180 = $320 of total room

A new trade idea has an entry of $50 and a stop of $46, so the risk is $4 per share. At your first-choice size of 125 shares, it would risk:

$4 × 125 = $500

That does not fit the $320 total room. The total cap alone would allow at most:

$320 ÷ $4 = 80 shares

Now check the sector bucket. Suppose the new stock is in a sector with a $1,250 cap and $1,000 already at risk. Sector room is only $250:

$250 ÷ $4 = 62.5 shares

Because you cannot buy half a share in this example, the maximum whole-share size under the sector cap is 62 shares, risking $248. The choices are:

- Take no trade.
- Take 62 shares or fewer, if every other rule is satisfied.
- Reduce or close an existing position after a genuine review, creating room before entering.
- Wait until another position closes and frees risk naturally.

What you may not do is widen the new stop, ignore the sector, or call the trade "small" without doing the math. A farther stop increases dollars at stop unless the share count falls enough to keep the same dollar risk.

Adding shares to an existing position requires the same test. Recalculate the entire position after the proposed addition, not just the added shares.

Finally, check earnings before entry. A trade can fit the dollar caps and still cluster event risk if its print arrives tomorrow and three other holdings report the same week.

The Weekly Book Review

A weekly review is a calm inspection of the whole book. Bring it back to facts: current shares, current stops, current dollars at risk, sector totals, and upcoming earnings.

For **each position**, answer these questions in writing:

- **Is the thesis intact?** The **thesis** is the original plain-English reason for expecting the trade to work. "It is down, so it should bounce" is not the thesis unless that was truly the plan.
- **Is the position still valid?** Have the conditions required by your plan failed, or is it still behaving within the allowed range? A position can be losing and valid, or profitable and no longer matched to its original reason.
- **Is the stop still right?** Check the level, remaining shares, and dollars at stop. If the stop was reached, the plan has already answered: exit rather than inventing a new reason to stay.
- **Has the risk changed?** Recalculate after price moves, partial sales, additions, or account gains and losses.
- **When is the next earnings report?** Confirm the date and whether the hold, reduce, or exit decision still stands.
- **What is the action?** Choose hold, reduce, or exit. "Wait and hope" is not an action.

Then review the book as a whole:

- Total open risk in dollars and as a percentage of the current account
- Risk by sector and by industry
- Largest single position risk
- Earnings dates in calendar order
- Positions whose stops are close enough that one bad day could trigger several exits

- Risk room available for a new trade

A review table can be simple:

Position	Thesis intact?	Dollars at stop	Next earnings	Action
Stock A	Yes	$480	None during planned hold	Hold
Stock B	Yes, but event risk is near	$500	In 4 days	Reduce before the print
Stock C	No — entry condition failed	$400	None during planned hold	Exit
Stock D	Yes	$400	In 18 days	Hold; earnings decision due next week

Keep a **journal**, a written record of entries, exits, reasons, and decisions. Write the action and reason during the review, not after the result is known; otherwise memory can quietly rewrite the plan.

If room is needed, consider first the position with a broken thesis, an unwanted earnings event, or the most duplicate sector risk — not automatically the biggest loser. The question is which position least deserves its share of the book's risk now.

Common Mistakes at This Level

- Counting positions instead of adding their dollars at stop.
- Risking 1% on eight positions and calling the result “only 1% risk.”
- Owning five stocks in one sector and mistaking five tickers for diversification.
- Using available cash as permission to add another trade.
- Breaking a sector cap because each separate industry inside the sector looks different.
- Learning about a holding's earnings from the headline after the move.
- Holding through earnings at a size chosen only for normal stop distance.
- Widening a stop or increasing shares to make a new position appear to fit.
- Subtracting a winner's open profit from a loser's possible loss when calculating book risk.
- Reviewing only the account balance instead of each thesis, stop, sector total, and earnings date.
- Treating a stop as a guaranteed sale price despite overnight gap risk.

Chapter Summary

- A book is all open swings managed as one combined risk unit.
- Dollars at stop equal the distance from entry to stop multiplied by shares still held.
- Total open risk is the sum of every position's dollars at stop; do not offset one position's risk with another's profit.
- A total open-risk cap around 4% to 6% is a common guideline, not a law; choose a written limit that fits your experience and conditions.

- Correlated positions stack. Five positions risking 1% each in one sector create a possible 5% sector loss if they fall together.
- Sector and industry caps reveal concentration that a whole-book cap can miss; when caps conflict, the most restrictive cap controls.
- Audit every holding's next earnings date and decide to hold, reduce, or exit before the print.
- A new position must fit the total, sector, industry, and single-position room — not merely the available cash.
- Review every position weekly for thesis, validity, stop, current risk, earnings, and a definite hold, reduce, or exit action.

Check Yourself

1. A trader buys 200 shares at $45 with a stop at $42. What is the dollars at stop?
2. A $50,000 book has four positions with $450, $500, $350, and $600 at stop. What are the total open risk and the percentage of the account at stop?
3. Why can five technology positions that each risk 1% behave like one 5% bet?
4. A book has a $2,500 total-risk cap and $2,180 already at stop. A proposed trade risks $4 per share, but its sector has only $250 of room. What is the largest whole-share position allowed by the sector room?
5. During the weekly review, what six checks should be made for each position?

Answers: 1) $3 per share × 200 = $600 at stop. 2) $450 + $500 + $350 + $600 = $1,900; $1,900 ÷ $50,000 = 3.8%. 3) They are correlated: one sector event can drive all five toward their stops together, adding the separate $500 risks into a $2,500, or 5%, loss. 4) $250 ÷ $4 = 62.5, so 62 whole shares, risking $248. 5) Check the thesis, validity, stop, current risk, next earnings date, and whether the action is hold, reduce, or exit.

> **RISK**
> Five “small” trades are not small if they share the same stop day, the same sector driver, or the same earnings week — manage the book you actually have, not the list of tickers you meant to diversify.



AA3-15

THE WEEKLY SWING ROUTINE

The weekend session and the low-maintenance trading week.

Alpha Academy Level 3 · Team Alpha Trading

The Weekly Swing Routine

Swing trading means buying a stock or fund and holding it for days to a few weeks, trying to catch one solid move — a **swing** — instead of dozens of tiny moves in a single day. If you finished Level 1 and Level 2, you know the instruments, the orders, and the risk rules. This module is about something different: **the operating system** — the weekly routine that turns swing trading from a stressful hobby into a calm, organized process.

Here is the honest promise up front. Swing trading's biggest advantage is not money. It is **time**. A day trader (someone who opens and closes every trade the same day) is chained to a screen for hours. A swing trader does most of the real thinking in one focused weekend session, spends ten to fifteen minutes on weekday evenings keeping things in order, and lets the market come to them. That is the lifestyle edge — but it only exists if you actually run the routine. A swing trader without a routine is just a day trader who checks prices all day and sleeps badly.

> **NOTE**
> Everything in Alpha Academy is education, not financial advice. A routine does not make trades win. It makes your decisions planned instead of emotional — and most swing traders lose money when they start, so surviving long enough to get good is the first job.

The Shape of the Week

The whole routine fits on one page. Learn the shape first; the rest of this module fills in each block.

Block	When	Time	Job
Weekend session	Saturday or Sunday	60–90 minutes	Think, review, plan the week
Weekday maintenance	Mon–Thu evenings	10–15 minutes	Check alerts, orders, and positions
Friday close-out	Friday after the close	20–30 minutes	Journal the week and grade yourself

Notice what is missing: no block called "watch charts all day." That is deliberate. During market hours your job is mostly to do nothing. Your plans were written when you were calm; the market's job during the week is to come to your prices — not the other way around.

The Weekend Session: Where the Trading Actually Happens

The weekend session is the heart of the system. Sixty to ninety minutes, same time every week, phone away. It has four parts, in a fixed order: regime check, position review, watchlist building, and calendar check.

Part 1: The Market Regime Check (10 minutes)

A **regime** is the market's current personality — trending up, trending down, or chopping sideways. The same trade that works beautifully in an uptrend can bleed money in chop, because in chop prices reverse instead of following through.

You check the regime on **weekly charts** — charts where each candle (the box showing a period's open, high, low, and close prices) represents one full week. Weekly candles filter out daily noise and show the real direction. Look at a broad market fund like an S&P 500 ETF (a fund holding all 500 big US companies that trades like one stock) and a Nasdaq-100 ETF (100 big Nasdaq companies, heavily technology). Ask three questions:

- Is price above or below its long-term average line (a 40-week average, roughly the famous 200-day average)? Above suggests a friendly environment; below suggests defense.
- Are the weekly candles making higher highs and higher lows (an uptrend), lower highs and lower lows (a downtrend), or neither (sideways)?
- Did anything change versus last week, or is this the same regime continuing?

Write the answer in one sentence in your journal: "Regime: uptrend, friendly" or "Regime: sideways chop, be picky." That sentence controls how aggressive the rest of the session may be. In a friendly regime you might plan five or six candidates. In a hostile one, the correct plan might be two — or none.

> **TIP**
> "None" is a legitimate weekend output. Deciding on Sunday that this week offers nothing worth risking money on is a professional decision, not a missed opportunity. Cash is a position.

Part 2: Review Open Positions Against Their Plans (15 minutes)

Every position you already hold was opened with a written plan: an entry price, a **stop** (the price where you admit you are wrong and exit), and a **target** (the price where you plan to take profit). The weekend review holds each position up against its own plan and asks:

- Is the original reason for the trade still true? (Reasons belong to whatever method *you* trade — the Academy teaches process, not a strategy. You wrote a reason down, so check it.)
- Where is price now relative to the stop and the target? Do the exit orders need adjusting, or are they already working exactly as planned?
- How many days has the trade been open, and is that still inside the time you planned to give it?

Example. You bought 50 shares of a fictional stock, Harbor Lights Inc. (HLIT), at $40, with a stop at $37 and a target at $46. Your risk is ($40 − $37) × 50 = $150, and your planned reward is ($46 − $40) × 50 = $300 — twice the risk, which traders write as **2R**, where **R** means the dollar amount you planned to risk on the trade. It is now the weekend and HLIT closed Friday at $42.50. The entry reason is still intact, the stop order is working at $37, and the position is up $125 on paper. Verdict: nothing to do. Most weekend reviews end exactly like that — *nothing to do* — and that is a feature, not a bug.

> **RISK**
> Stops do not protect you from overnight gaps. A **gap** is when a stock opens far from where it closed the day before — after bad news, for example. If HLIT closed at $42.50 but opened Monday at $35, your stop at $37 becomes a market order at the open and fills near $35. You planned to risk $150 and instead lost about ($40 − $35) × 50 = $250. This is the defining risk of holding overnight, and it is why swing sizes must be modest. The routine cannot remove gap risk; sizing honestly is how you live with it.

Part 3: Build the Watchlist — With the Whole Plan Written (30–40 minutes)

A **watchlist** is your short list of stocks or funds you might trade this week. The rule that separates swing traders from gamblers: **a candidate does not make the list unless its entire plan is written before the week starts.** For every candidate you write five things:

- Ticker and what the company or fund is, in one line
- The exact price (or price zone) where you would enter
- The stop price
- The target price
- The position size, calculated from your risk rule — never guessed

Position size comes from your risk budget. Say your account is $10,000 and your rule is to risk at most 1% per trade — $100. A candidate triggers at $25 with a stop at $23.50, so the risk per share is $1.50. Size = $100 ÷ $1.50 = 66.6, rounded down to **66 shares**, costing 66 × $25 = $1,650. If it works to a $29 target, you make 66 × $4 = $264 (about 2.6R). If it fails, you lose about $99 — the planned 1%, nothing more.

Keep the list short: three to six candidates is plenty. A list of thirty names is not preparation; it is a guarantee you will chase whichever one moves first. And respect stacking: five technology stocks are not five separate bets — related stocks tend to fall together, so count them as roughly one position when you think about total risk.

Part 4: Check Next Week's Calendar (10 minutes)

Two calendars matter.

- **Earnings calendar. Earnings** are a company's scheduled quarterly report card. Single stocks routinely jump or drop 5–15% overnight on earnings — straight through stops. For every open position and candidate, check the earnings date. Many swing traders refuse to hold a single stock through its earnings unless that gamble is the deliberate, sized-for plan. A surprise you could have seen on a calendar is not bad luck; it is a skipped step.
- **Economic calendar.** Government reports — the monthly jobs report, inflation reports, and the Federal Reserve's interest-rate decisions (the Fed is the US central bank) — move the *whole market* at once. You do not need to predict them. You need to know they are coming, so a wild Wednesday does not feel like a personal attack.

Write both into your journal: "**ACME** reports Tuesday after the close — decision: exit Monday or size for a gap. Fed decision Wednesday 2 PM — expect a choppy day market-wide."

Weekday Maintenance: Ten to Fifteen Minutes, Then Done

Weekday evenings are maintenance, not analysis. Open the journal and the broker app, and run the same short checklist:

- Did any alert fire today? If yes, did the plan's order handle it, or does something need your decision tonight?
- Are all stop and target orders still working (actually live in the account) for every open position?
- Did any position close today? If so, write the one-line journal entry now, while it is fresh.
- Anything on tomorrow's calendar — earnings or a big report — that affects a position?

Then close the app. That is the whole job.

The discipline hiding inside this section: **your orders do the trading during the day.** If your plan says enter at $25, an order can be resting at $25 (a **limit order** — an instruction to buy or sell only at your price or better) while you are at work, at the gym, or asleep. If your plan says exit at $23.50, a stop order is already sitting there. Watching changes nothing except your stress level — and stressed traders move stops, cancel targets, and invent 11 AM trades their calm Sunday selves never approved.

> **RULE**
> If a decision was not in the written plan, it does not get made during market hours. New ideas go in the journal and wait for the weekend session, where calm-you gets a vote.

Alert Discipline: Let the Market Come to You

A **price alert** is a notification your broker or chart app sends when a stock reaches a price you chose. Alerts are the swing trader's eyes during the day — but only if they are set with discipline.

- **Alert at plan levels only.** Set alerts at your written entry zones, stops, and targets — the prices where a decision actually exists. Three to six alerts a week is normal.
- **Never alert at every wiggle.** An alert at "any 2% move" fires constantly, trains you to check prices all day, and quietly turns you back into a day trader with worse information. Alert fatigue is real: after the fortieth buzz, you stop reading the important ones.- **An alert is information, not an instruction.** When one fires, the correct response is usually "good — the order is handling it" or "noted for tonight." The alert does not mean *do something now*; it means the plan you wrote is meeting the market, exactly as designed.

The Friday Close-Out Review

Friday after the market closes (4 PM Eastern), spend twenty to thirty minutes closing the books on the week. This is where improvement actually comes from — not from finding better stocks, but from auditing your own behavior. Journal four things:

- **Positions opened and closed this week**, with entry, exit, and the planned R for each.
- **Results in R multiples.** Forget dollars for a moment; grade in R. A $99 loss on a $100 plan is −1R (normal, expected, fine). A $264 win on that plan is +2.6R. R keeps a $5,000 account and a $50,000 account honest on the same scale.
- **Rule breaks.** Every single one, written down without excuses: "Moved my stop down Tuesday because I 'felt' it would come back. Cost an extra 0.8R." Rule breaks are the most valuable data you own — they point at *you*, not the market.
- **One sentence on the regime** and whether next weekend's session needs to adjust anything.

A sample week in R: closed three trades, +2.6R, −1R, −1R → net **+0.6R**. In dollars on a $100 risk size that is roughly +$60 — a boring, perfectly decent week. Notice the shape: one good winner paid for two normal losers with a little left over. That asymmetry — small planned losses, occasional bigger wins — is the engine of swing trading, and you can only see it if the journal exists.

> **TIP**
> Keep a running column in your journal: **"Would calm Sunday-me have approved this trade?"** If the answer is no more than once or twice a month, your routine is leaking — and the leak is you, which is good news: you are the one part of the system you can actually fix.

A Model Week, Day by Day

Here is the whole routine running on one fictional week. Account: $10,000. Risk rule: 1% ($100) per trade. Open position coming in: the **HLIT** trade from earlier (50 shares from $40, stop $37, target $46).

Day	What happens	Your time
Sunday	Weekend session: regime = uptrend, friendly. **HLIT** plan still valid, nothing to change. Watchlist: **ACME** (enter $25, stop $23.50, target $29, 66 shares) and **BRCO** (enter $60, stop $57, target $66, 33 shares). Calendar: **ACME** earnings Tuesday after the close; Fed decision Wednesday.	75 minutes
Monday	**ACME** never reaches $25 — no trade, no stress. **HLIT** drifts to $43. Evening check: all orders live, nothing fired.	10 minutes
Tuesday	**ACME** dips to $25.10 — close, but not your price, so no entry. After the close it reports earnings and swings wildly in the evening news. You hold none, exactly as planned Sunday: if it had not triggered by Tuesday's close, earnings would pass without you.	12 minutes
Wednesday	Fed decision at 2 PM whips the whole market. **HLIT** swings between $42 and $44 and closes at $43.50; your stop and target never came close. You saw none of it live — you were at work. Evening check confirms the orders are untouched.	10 minutes
Thursday	**BRCO** reaches $60; the resting limit order fills automatically — 33 shares, $1,980. Risk if stopped: ($60 − $57) × 33 = $99. Evening check: stop at $57 confirmed working, target order at $66 placed.	15 minutes

Day	What happens	Your time
Friday	HLIT touches $46.20; the target order fills at $46. Profit: ($46 − $40) × 50 = $300 = +2R on the $150 planned risk. BRCO closes at $61.50, still open, plan intact. Close-out review: journal the HLIT win and zero rule breaks. Total week cost: about two hours, most of it Sunday.	25 minutes

Read that week again and notice how little *happened* at the screen. Two plans were written calmly, one earnings landmine was dodged by a calendar, one entry and one exit were executed by resting orders, and the wildest day of the week — a Fed day — required nothing at all. That is the system working exactly as designed.

Common Mistakes at This Level

- **Skipping the weekend session, then improvising all week.** Every mid-week "idea" feels urgent and is usually just boredom or fear wearing a costume.
- **Planning entries but not exits.** A candidate without a written stop and target is not a plan; it is a hope with a ticker symbol.
- **Setting alerts everywhere.** Alerts at every wiggle rebuild the day-trading habit you became a swing trader to escape — and the chart-staring quietly returns.
- **Overriding orders during the day.** Moving a stop "just this once" converts a planned −1R loss into an unplanned −3R loss. Twice a month, that is your entire expected profit, gone.
- **Holding single stocks through earnings by accident.** The date was published weeks ahead. Check the calendar; decide on purpose.
- **Stacking correlated positions.** Five tech swings that all fall together on the same bad day are one position wearing five tickers.
- **Judging the week in dollars instead of R and rule-following.** A profitable week with three rule breaks is a bad week that got lucky. A −1.5R week with zero rule breaks is the system working. Grade the behavior; the money follows over months.
- **Never journaling.** Without the Friday review there is no feedback loop — you will repeat your most expensive mistake roughly forever.

Chapter Summary

- Swing trading's edge is a time structure: one deep planning session, brief daily maintenance, and a weekly self-audit — not screen time.- The weekend session (60–90 minutes) has four fixed parts: regime check on weekly charts, review of open positions against their written plans, a short watchlist where every candidate already has entry, stop, target, and size written, and a check of next week's earnings and economic calendars.
- Position size is calculated from a fixed risk rule (for example 1% of the account): shares = dollar risk ÷ (entry − stop). Related positions in the same sector count as one bet.

- Overnight gap risk is the defining danger of swinging; stops become market orders after a gap, so modest size is the real protection.
- Weekday maintenance is 10–15 minutes in the evening: confirm alerts, orders, and closures — then close the app. Resting orders execute the plan during the day.
- Alerts belong only at plan levels where a decision exists. An alert is information, not an instruction to act.
- The Friday close-out review journals positions, results in R multiples, and every rule break. Grade behavior first; dollars follow.
- The model week shows the payoff: roughly two hours total, most decisions made calmly on Sunday, and the market's wildest day requiring nothing from you.

Check Yourself

1. What are the four parts of the weekend session, in order?
2. Your account is $10,000, your risk rule is 1%, and a candidate enters at $25 with a stop at $23.50. How many shares do you buy, and what do you lose if the stop fills?
3. Why does a stop order not fully protect a swing trader, and what actually controls that risk?
4. Why should alerts be set only at plan levels instead of on every price move?
5. In the model week, the **HLIT** trade risked $150 and made $300. What is that result in R, and why does the Friday review grade in R instead of dollars?

Answers: 1) Regime check on weekly charts, review of open positions against their written plans, watchlist building with complete plans (entry, stop, target, size), and checking next week's earnings and economic calendars. 2) Risk per share is $1.50 and your budget is $100, so $100 ÷ $1.50 = 66 shares (rounded down); if the stop fills you lose about 66 × $1.50 = $99 — the planned 1%. 3) Because of overnight gaps: if the stock opens below your stop, the stop becomes a market order at the open and fills at the worse price. Modest position size — planning for a worse-than-planned loss — is what controls it. 4) Because an alert should mark a price where a real decision exists. Alerting on every wiggle creates constant interruptions, pulls you back into all-day chart watching, and breeds alert fatigue until you ignore the important ones. 5) +2R. R measures every trade against its own planned risk, so results are comparable across prices, sizes, and account balances — and it grades whether you followed the plan, the part you control.

> **RULE**
> Write the whole plan on the weekend — entry, stop, target, size — then let orders and alerts run the week. Your only weekday jobs are fifteen minutes of maintenance and the honesty to journal what you actually did.



CU-09

TRACK C EXAM
SWING TRADING

30 questions over the swing track. Pass mark: 80%.

Curriculum & Assessment · Team Alpha Trading

Track C Exam — Swing & Position Trading

This is the final exam for **Track C — Swing & Position Trading** (modules AA3-11 through AA3-15). It tests whether you can actually run a swing book: aligning timeframes, sizing positions from the stop, surviving gaps, pyramiding into winners without growing risk, using LEAPS and covered calls with open eyes, capping the risk of the whole book, and living the weekly routine.

There are **30 multiple-choice questions**. Each has four options — A, B, C, and D — and exactly one best answer. Some questions ask you to compute; keep a pencil or a calculator beside you and show the position-sizing math the way the modules taught it: shares = dollars you may risk ÷ distance from entry to stop, always rounded **down**.

Take it closed-book first. That is the honest measure of what you know.

> **NOTE**
> The pass mark is **80% — 24 of 30 correct**. Below that, the answer key tells you exactly which module to re-study for every question you missed. Re-study, then retake. Education only — nothing here is financial advice.

The Questions

1. In the swing framework, what is the weekly chart's job?

- A. It sets the direction — the trend you are allowed to trade with
- B. It times your exact entry price
- C. It replaces the daily chart entirely
- D. It tells you which stocks will report earnings

2. Which of these is a **pullback** entry, as AA3-11 defines the two entry families?

- A. Buying the first day a stock makes a new all-time high
- B. Buying a dip into proven support while the higher-timeframe trend is still up
- C. Buying any stock that fell 10% this week
- D. Buying at the open on a gap up

3. Your account is $25,000 and you risk 1% per swing. A stock's entry is $80 and its stop sits below structure at $74. How many shares do you buy?

- A. 31 shares
- B. 41 shares
- C. 50 shares
- D. 312 shares

4. On that same position — 41 shares, entry $80, stop $74 — what is your planned loss if the stop fills cleanly at $74?

- A. $250
- B. $240
- C. $246

- D. $492

5. A swing stop must sit below structure, so it is wider than a day-trade stop. At the **same dollar risk**, a wider stop means:

- A. A smaller position
- B. A larger position
- C. The same position — stop distance does not affect size
- D. You should skip the stop and use a mental one instead

6. Your 41 shares were bought at $80 with a stop at $74. The stock closes at $78, then opens the next morning at $68 after a bad earnings report. Roughly what do you actually lose, and why?

- A. $246 — the stop guarantees a fill at $74
- B. $0 — stops cancel all overnight losses
- C. $410 — the difference between the close and the open, times ten
- D. About $492 — the stop became a market order at the open and filled near $68, the first price that actually existed

7. What is the core philosophy of position trading and trend following?

- A. Win as often as possible, even if the wins are small
- B. Cut losers fast and let winners run — most returns come from a few big trends
- C. Never hold a position longer than one week
- D. Average down until the position turns profitable

8. A trend follower wins 40% of trades. Her average win is +$900 and her average loss is −$300. What is her expectancy per trade?

- A. +$600
- B. −$180
- C. +$180
- D. +$90

9. Same trader, same 40% win rate — but now she cuts winners early at +$300 and holds losers to −$900. What is her expectancy per trade now?

- A. −$420
- B. +$120
- C. −$120
- D. $0 — the win rate did not change, so neither did the result

10. Pyramiding means adding to a position. Under the AA3-12 rules, when may you add?

- A. Whenever the price drops and the average cost improves
- B. On a schedule — the same amount every Friday
- C. Only before the first entry fills, to get a better price
- D. Only to a position that is already winning and proving the idea right

11. Which pair of rules governs every pyramid add?

- A. Each add is bigger than the last, and total risk may grow as confidence grows
- B. Each add is smaller than the one before, and total risk never grows beyond the original plan
- C. Adds happen only on red days, at any size
- D. Adds are unlimited as long as the trend looks intact

12. Why does a trend follower refuse to use a fixed, small profit target?

- A. Brokers charge extra for target orders
- B. Small targets are only for futures traders
- C. It amputates the few big winners — and those winners are what pay for all the losers
- D. Targets are illegal in position trading

13. What is a LEAPS option?

- A. A long-dated option, typically expiring about 6 to 24 months out
- B. An option that expires the same day it is bought
- C. A type of stock dividend
- D. A futures contract on the S&P 500

14. Used as a stock replacement, a LEAPS call is usually bought with a delta in which range?

- A. 0.05–0.15
- B. 0.20–0.40
- C. Exactly 0.50, always
- D. Around 0.70–0.90

15. A LEAPS call's premium is quoted at $38.00. What does **one** contract cost?

- A. $38
- B. $3,800
- C. $380
- D. $38,000

16. You hold that LEAPS call at 0.80 delta. The stock rises $10. Roughly how much does one contract gain?

- A. About $80
- B. About $8
- C. About $800
- D. Exactly $1,000, guaranteed

17. Which statement about LEAPS risk is TRUE?

- A. A LEAPS can still expire worthless — if the stock finishes below the strike at expiration, the full premium is gone, while a stockholder still owns shares worth something
- B. LEAPS cannot lose money because they have so much time left
- C. LEAPS have no time decay at all
- D. A LEAPS is safer than owning the stock in every scenario

18. You buy a vertical debit spread for a swing and pay a $1.80 debit. What is the most you can lose on the spread?

- A. Unlimited — all spreads have unlimited risk
- B. $1,000 per spread
- C. The width of the spread, no matter what you paid
- D. The debit paid — $180 per spread

19. You own 100 shares bought at $60. You sell one covered call, strike $65, for a $2.00 premium ($200 received). At expiration the stock is $72 and your shares are called away at $65. What is your total result on the whole play?

- A. +$1,200 — the full rise from $60 to $72
- B. +$700 — $500 from the shares plus the $200 premium
- C. +$200 — only the premium counts
- D. −$500 — being called away is always a loss

20. "Total open risk" for a book of swings means:

- A. The total dollars you have spent on stock
- B. Your margin balance
- C. The sum of every open position's dollars-at-stop — and the whole book's total is capped (the module's guideline example caps it at 5% of the account)
- D. The number of positions you hold

21. On a $50,000 account with a 5% whole-book cap, how much total stop risk may the book carry — and what does that mean for five positions each risking 1%?

- A. $2,500 — five 1% positions exactly fill the cap, so a sixth full-size position breaks the book's design
- B. $5,000 — ten 1% positions are fine
- C. $500 — only one position is ever allowed
- D. There is no dollar figure; caps are counted in positions, not dollars

22. You hold five technology swings, each risking 1% of your account. How does AA3-14 say to think about them?

- A. As five independent bets that cannot fall together
- B. As a balanced, diversified book
- C. As risk-free, because each one is "only 1%"
- D. As effectively one giant 5% bet on technology — correlated positions fall together

23. In the AA3-14 example caps for a $50,000 account, what is the cap for any **one sector**?

- A. 5% — $2,500
- B. 2.5% — $1,250
- C. 10% — $5,000
- D. No sector cap is needed if the whole-book cap is respected

24. What does the earnings calendar audit require you to do?

- A. Buy more shares right before every earnings report
- B. Ignore earnings dates — swings are long-term, so reports do not matter

- C. List every holding's next earnings date and decide hold, reduce, or exit **before** the print — never discover the date from the headline
- D. Sell every position the week earnings season starts

25. When may you add a brand-new swing position to the book?

- A. Only when the total open risk **after** adding it still fits inside the book's cap
- B. Any time a setup looks good — caps apply only at the start of the month
- C. Whenever you have spare cash, regardless of open risk
- D. Only on Mondays

26. The weekend session lasts about 60–90 minutes. Which of these is NOT part of it?

- A. Checking the market regime on the weekly charts
- B. Reviewing every open position against its plan
- C. Building the watchlist with entry, stop, and target pre-written for each candidate
- D. Staring at intraday charts hunting for an entry to take right now

27. How much weekday maintenance does the swing routine call for, and why does it work?

- A. All day at the screen — swing traders must watch every tick
- B. About 10–15 minutes in the evening — alerts and working orders do the watching, which is the lifestyle edge of swinging
- C. None at all — a swing book needs no attention between weekends
- D. Four hours every morning before the open

28. What is alert discipline, as AA3-15 teaches it?

- A. An alert on every 1% wiggle, so you never miss anything
- B. No alerts — checking the app hourly is enough
- C. Price alerts set at your plan levels — entry zones, stops, targets — so the market comes to you
- D. Alerts only for stocks you do not own yet

29. What belongs in the Friday close-out review?

- A. The week's positions opened and closed, their R multiples, and every rule break — journaled
- B. Only the winning trades; losers are best forgotten
- C. A prediction for next week's market direction
- D. Nothing — the weekend session covers everything

30. During the trading week, a position acts in a way your plan never covered and you want to rewrite the plan on the spot. What does the weekly routine say?

- A. Rewrite it immediately — plans are made to be broken
- B. Plans and watchlist rules change at the weekend session, when you are calm and the market is closed — never on a midweek impulse
- C. Ask the chat room what to do
- D. Double the position so the decision matters less

Finished? Score yourself with the **Track C Exam — Answer Key**. **24 of 30 (80%) is a pass.** Every missed question names its module — re-study that module, then retake the exam until the score is honest.

> **RULE**
> The swing trader's edge is not a secret signal. It is a sized position, a respected stop, a capped book, and a routine that repeats every single week.



CU-10

TRACK C
ANSWER KEY

Answers explained, with the re-study map.

Curriculum & Assessment · Team Alpha Trading

Track C Exam — Answer Key

This is the answer key for the **Track C Exam — Swing & Position Trading** (modules AA3-11 through AA3-15). Every entry gives the correct letter, one line on **why** it is right, and the module to re-study if you missed it.

> **NOTE**
> The pass mark is **80% — 24 of 30 correct**. If you fell short, do not just re-read this key. Re-study the module named on each missed question, then retake the exam closed-book.

Answers

1. A — The weekly chart sets direction, the daily holds the setup, and lower timeframes only fine-tune. Re-study: AA3-11.

2. B — The two entry families are breakouts to new highs and pullbacks to support inside an intact higher-timeframe uptrend; a dip into support is the pullback. Re-study: AA3-11.

3. B — Risk is $25,000 × 1% = $250; stop distance is $80 − $74 = $6; $250 ÷ $6 = 41.6, rounded **down** to 41 shares. Re-study: AA3-11.

4. C — 41 shares × $6 per share = $246 — just under the $250 budget, which is exactly why you round down. Re-study: AA3-11.

5. A — Size = risk dollars ÷ stop distance, so a wider stop at fixed dollar risk always means fewer shares. Re-study: AA3-11.

6. D — A stop is an instruction to sell at the next available price, not a price guarantee: the gap skipped $74 entirely, so 41 × ($80 − $68) ≈ $492. Re-study: AA3-11.

7. B — Trend following survives a low win rate because losers are cut fast and a few big trends are allowed to run. Re-study: AA3-12.

8. C — (0.40 × $900) − (0.60 × $300) = $360 − $180 = **+$180** per trade. Re-study: AA3-12.

9. A — (0.40 × $300) − (0.60 × $900) = $120 − $540 = **−$420** per trade — the size ratio, not the win rate, flipped the system. Re-study: AA3-12.

10. D — You pyramid only into proof: a position that is already winning. Adding to a loser is averaging down, and it is banned. Re-study: AA3-12.

11. B — Each add is smaller than the one before, and moving stops keep total risk at or under the original plan. Re-study: AA3-12.

12. C — A small fixed target caps exactly the rare, huge winners whose profits pay for the many small losers. Re-study: AA3-12.

13. A — LEAPS are simply long-dated options — typically expiring about 6 to 24 months out. Re-study: AA3-13.

14. D — A stock-replacement LEAPS call is bought deep in the money, with delta around 0.70–0.90, so it moves nearly share-for-share. Re-study: AA3-13.

15. B — Premium is quoted per share and one contract covers 100 shares: $38.00 × 100 = $3,800. Re-study: AA3-13.

16. C — 0.80 delta × $10 move ≈ $8 per share, and $8 × 100 shares ≈ $800 per contract. Re-study: AA3-13.

17. A — Given enough time, theta slows down but never disappears: finish below the strike at expiration and the whole $3,800 premium is gone. Re-study: AA3-13.

18. D — A bought (debit) spread can never lose more than the debit paid: $1.80 × 100 = $180. Re-study: AA3-13.

19. B — Called away at $65: (65 − 60) × 100 = $500 on the shares, plus the $200 premium = +$700 — the run to $72 above the strike was sold away, which is the covered call's trade. Re-study: AA3-13.

20. C — Total open risk is the sum of every position's dollars-at-stop, and the whole book carries a hard cap (5% in the module's guideline example). Re-study: AA3-14.

21. A — 5% of $50,000 = $2,500; five positions at 1% ($500) each exactly fill it, so a sixth full-size position breaks the design. Re-study: AA3-14.

22. D — Five same-sector swings share one fate: a sector-wide drop can hit all five stops together, making them one 5% technology bet. Re-study: AA3-14.

23. B — The example caps one sector at 2.5% of the account — $1,250 on $50,000 — inside the 5% whole-book cap. Re-study: AA3-14.

24. C — Earnings dates are scheduled landmines: audit them in advance and decide hold, reduce, or exit before the print, never after the headline. Re-study: AA3-14.

25. A — A new position is allowed only if the book's total open risk, including the new trade, still fits under the cap. Re-study: AA3-14.

26. D — The weekend session is calm planning — regime, open positions, watchlist, calendar. Intraday entry-hunting belongs to day trading, not to the swing routine. Re-study: AA3-15.

27. B — Roughly 10–15 minutes an evening: alerts and working orders watch the market so you do not have to. Re-study: AA3-15.

28. C — Alerts live at your plan's levels — entries, stops, targets — not on every wiggle, so the market comes to you. Re-study: AA3-15.

29. A — Friday's review journals the week honestly: opens, closes, R multiples, and rule breaks — the raw material for improvement. Re-study: AA3-15.

30. B — The plan is written and revised at the weekend session, with the market closed and your head clear; midweek impulses follow the existing plan. Re-study: AA3-15.

How to Use Your Score

- **24–30 — Pass.** You can run a swing book the Academy way. Keep the routine for a full quarter before judging your results.
- **18–23 — Close.** Re-study the modules named on your misses — most near-passes break on sizing math or the book caps — then retake.
- **Below 18 — Not yet.** Work back through AA3-11 to AA3-15 in order, do the sizing examples by hand, and retake when the math is automatic.

> **RULE**
> An exam you pass by peeking teaches nothing. An exam you fail honestly tells you exactly what to study next — that is the whole point of it.



CU-11

THE CAPSTONE
SIMULATED WEEK

Five sessions, one paper account — the final board.

Curriculum & Assessment · Team Alpha Trading

The Capstone — One Simulated Week

This is the final examination of Alpha Academy — and it is not a quiz. Quizzes test what you can remember. The Capstone tests what you can **do**: plan a session, size a position, refuse a bad trade, honor a stop, and keep an honest ledger, for five straight simulated days, with every position carrying over and every dollar counting.

You will run a **$25,000 paper account** through one scripted week, Monday to Friday. Each day hands you the pre-market facts — index levels, the overnight futures range, and the day's catalyst — then the day unfolds in front of you: a midday development, a temptation, a rule that gets tested. At each **Decision Point** you write down what you do and show your math before reading on. Nothing is hidden and nothing is random: every price you need is in the text, and the week's numbers tie together exactly, the way a real account does.

Work one day at a time. Write your plan before the session, answer each Decision Point in writing as you reach it, and close each day with a journal entry. Do not read the grading key (a separate document) until the week is finished — grading yourself honestly is part of the test.

> **NOTE**
> This is a paper-trading simulation for education. The companies named NWRO and HELX are fictional, the week never happened, and nothing here is financial advice. The arithmetic, the rules, and the traps are all real.

Your Rulebook for the Week

These are the Academy rules you have already learned. They are the law inside the Capstone — every Decision Point is graded against them.

- **Risk per trade: 1% of the account.** On $25,000, the maximum planned loss on any single position is **$250**.
- **Total open risk: never more than 5%** — $1,250 across all open positions combined.
- **Daily loss limit for day trades: $500.** Hit it and you are done for the day.
- **Every position is written down before entry:** entry, stop, target. No exceptions.
- **Defined risk only.** No naked short options, ever, at any size.
- **Stops are honored.** A stop that is hit is an exit, not a discussion.
- **Stops move only at pre-written triggers** — never because a trade "feels" different mid-session.
- **On a gap through a stop, you exit at the opening print.** That print is your fill. Stops do not protect against gaps; position size is what protects you.
- **Plan before the session, journal after it.** A day with no journal entry caps that day's Decision Points at half credit.

The Week at a Glance

Day	Catalyst	What It Tests
Monday	Retail sales, in line	Sizing a swing; refusing a chase
Tuesday	Big-bank earnings beat	Choosing a 0DTE structure that fits the risk cap
Wednesday	CPI, then FOMC minutes	Event discipline; adding a second position
Thursday	Jobless claims; peer earnings after the close	Taking partial profits by the rule; pre-committing
Friday	Monthly options expiration (OPEX)	The gap test; undefined-risk temptation; the final ledger

Your two cast members: **NWRO** (Northwind Robotics, fictional), a stock in an uptrend that has pulled back into a base — Friday's close $84.00, support at $80.00, prior high $96.00. NWRO's own earnings are next week, but its largest competitor reports Thursday after the close. And **SPX 0DTE options**, which appear when the day's plan allows them.

Monday — The Plan Is the Trade

Before the Open

- **SPX** closed Friday at **5,980**. ES futures ranged overnight between **5,962 and 6,004** and sit at **5,992** — a quiet, slightly firm tape.
- **Catalyst:** the 8:30 AM retail sales report came in exactly as expected. No other major releases today.
- **NWRO:** closed Friday at $84.00 after four weeks of basing. Support sits at $80.00. The prior high — your target zone — is $96.00.

Your Sunday plan, already written: *Buy NWRO at the open near $84. Stop $80, under support. Target $96, the prior high. Size by the 1% rule.*

Decision Point 1 — Size the Swing

Before the bell: compute the position. State (a) how many shares, (b) the total cost, (c) the exact dollar risk if the stop is hit, and (d) whether the reward-to-risk is acceptable and why.

The Day Unfolds

Your limit order fills at the open: **$84.00**. By midday NWRO is $86.40 and SPX is 6,012. Then your phone buzzes: a chat-room alert is pounding the table on **VLTX**, a small stock up **18% today at $36.20** on a headline. It has run straight up from $30 this morning. There is no base, no pullback, and no support anyone can point to.

Decision Point 2 — The Chase

Do you buy VLTX? If yes, state your size, stop, and the math. If no, state exactly which rule kills the trade.

The Close

NWRO closes at **$86.00** — up $2.00 on your entry, a clean first day. SPX closes 6,012.

Decision Point 3 — The Stop Question

A voice in your head says: *"Move the stop up to $84 — now it's a free trade."* Do you move it? Answer with the rule that decides this, then write tonight's journal entry: position, fill, closing mark, unrealized P&L, and a one-line rule check.

Tuesday — Structures Have Sizes

Before the Open

- **SPX** closed Monday at **6,012**. ES ranged overnight **5,998–6,038**, last **6,030**.
- **Catalyst:** big-bank earnings before the open beat expectations; financials are bid and the tape is firm.
- **NWRO** is indicated near $86.50. Your stop stays at $80, per plan.

Your written plan for today: *If SPX trends up through the first hour, I may take ONE defined-risk 0DTE long structure. Exit any 0DTE position at 2× the debit paid, or at 3:30 PM, whichever comes first. Risk cap $250, as always.*

At 10:30 AM, SPX is **6,030** and rising steadily. Your broker shows two bull call spreads expiring today:

- **Structure A:** buy the 6030 call / sell the 6050 call (20 wide) — debit **$6.10**
- **Structure B:** buy the 6040 call / sell the 6050 call (10 wide) — debit **$2.40**

Decision Point 4 — Pick Your Structure

Which structure, if any, do you buy, and how many? Show the maximum loss and maximum gain of both structures in dollars before you answer.

The Day Unfolds

You make your decision at 10:30. The trend day continues: by 1:00 PM SPX is 6,044, and at **1:15 PM Structure B prints $4.90**. Your written exit trigger for a 0DTE position is 2× the debit — $4.80.

Decision Point 5 — The Exit Rule

The trend looks strong and the chat room is shouting "let it ride." What do you do with Structure B, and what is the exact dollar result of your action?

The Close

SPX closes at **6,052**. NWRO closes at **$88.00**. Tomorrow at **8:30 AM** brings the week's biggest scheduled event: the **CPI inflation report**.

Decision Point 6 — The Night Before CPI

Write tonight's plan for tomorrow morning: What happens to your open NWRO position? Do you add anything tonight or before the print? Do you take any position ahead of CPI? Include one check you run on NWRO itself before tomorrow.

Wednesday — Event Day

Before the Open

- **SPX** closed Tuesday at **6,052**. ES ranged overnight **6,030–6,065**, last **6,058**.
- **Catalyst:** CPI at 8:30 AM. FOMC minutes follow at 2:00 PM.

At 8:30 the print lands: **inflation +0.4% for the month, against +0.2% expected — hot.** Futures drop immediately. SPX opens at **6,015**. At 8:35 AM the chat is screaming that this is the top, and your broker shows a 0DTE put spread — buy the 5980 put / sell the 5960 put — quoted at a **$7.50 debit**, with spreads wide and prices jumping.

Decision Point 7 — Trading the Print

Do you buy the put spread? Give every rule that applies to this decision — there is more than one.

Midday Development

The morning storm fades. By 1:00 PM SPX has stabilized at **6,010**, and NWRO — which dipped to $84.30 late morning — has recovered to **$85.60**. Meanwhile a second stock has earned a look: **HELX** (fictional) is breaking out of a clean base at **$52.00**. Support under the base is **$49.00**; the measured target is **$61.00**. HELX has no earnings for three weeks. Your weekend notes already contain a plan for it: *Breakout entry $52, stop $49, target $61 — if total open risk allows.*

Decision Point 8 — The Second Position

Size HELX. Show the shares, the cost, the dollar risk — and the one check most students forget: the total open risk of the whole account after this trade. Then state your decision.

The Close

Your HELX order fills at **$52.00** at 2:05 PM. The 2:00 PM FOMC minutes knock it down to $51.40 for a few minutes — above your stop — and it closes at **$52.80**. NWRO closes at **$85.20**. SPX closes at **6,015**.

One more fact for tonight: **NWRO's largest competitor reports earnings tomorrow (Thursday) after the close.** Peers move together; a bad print can gap NWRO on Friday.

Decision Point 9 — Hold, Sell, or Double?

Tonight, for NWRO, do you: (A) sell at $85.20 "to be safe," (B) hold per plan, or (C) add to the position because it "survived CPI"? Choose one and defend it with the rules — including what protection you already own against Friday's gap risk.

Thursday — Rules Pay Rent

Before the Open

- **SPX** closed Wednesday at **6,015**. ES ranged overnight **6,000–6,040**, last **6,028**.
- **Catalyst:** jobless claims at 8:30 AM, in line. The peer earnings print lands after today's close.
- **Positions:** NWRO 62 shares from $84 (stop $80). HELX from $52 (stop $49).

Midday Development

A strong morning. SPX reaches **6,036**, NWRO is $86.10 — and **HELX spikes to $58.30**. Your written swing rule for HELX, set before entry: *at +2R, sell half the position and move the stop on the rest to breakeven.* (Reminder: HELX risk per share was $3.00, so +2R is $58.00.)

Decision Point 10 — Execute the Rule

HELX is through your trigger. State exactly what you do: how many shares you sell and keep, the price you get, the realized profit in dollars, where the stop goes, and the open risk remaining on HELX afterward.

Afternoon Development

By 2:30 PM the tape fades: SPX slides to **6,002** and NWRO slips to **$83.20**. The chat pivots to a "bounce trade": a 0DTE call spread — buy the 6005 call / sell the 6020 call — for a **$1.80 debit** ($180 risk). It was in nobody's plan this morning. It is not in yours.

Decision Point 11 — The Trade That Fits the Cap

$180 is inside your $250 risk cap. Is that enough? Take it or pass — and name the deciding rule.

The Close

SPX closes at **5,998**. NWRO closes at **$82.60** — below your entry, still above the $80 stop. HELX closes at **$57.80**. In a few hours, the competitor reports.

Decision Point 12 — Write Friday's Plan Tonight

Write, in full, your pre-committed plan for NWRO on Friday morning — covering both a gap **down** through your stop and a gap **up** or hold. Add one line covering HELX's status. This document is the deliverable; Friday you will simply execute it.

Friday — The Gap Test

Before the Open

The competitor **missed badly** — its stock is down 9% after hours. ES ranged overnight **5,960–6,000** and points to a soft open. Today is also **monthly options expiration (OPEX)**, with consumer sentiment at 10:00 AM — a day famous for prices pinning near big strikes into the close.

At 9:30 AM, **NWRO opens at $79.40** — straight through your $80.00 stop.

Decision Point 13 — Act

It is 9:30 AM. Your plan from last night is sitting in front of you. What do you do with all 62 shares, at what price do you assume your fill, and what is the exact realized result? Show the math, including how it compares to the loss you originally planned.

Midday Development

You have executed your plan. SPX chops between 5,970 and 5,995, magnetized near 5,985. HELX pulls back to $56.20, comfortably above its breakeven stop. At 1:00 PM a confident voice in the chat offers the week's last idea: *"SPX is pinned. Sell the 5995 call naked — it's free premium, it can't move."*

Decision Point 14 — Free Money?

Do you sell the naked call? Answer with the rule — and with what "pinned" actually is and is not.

The Close and the Final Ledger

HELX closes at **$56.60**. SPX closes at **5,985**.

Decision Point 15 — Close the Books

Produce the week's final accounting, showing your work:

- Total **realized** P&L for the week, trade by trade
- Your ending **cash** balance
- What you still hold, its closing value, its unrealized P&L, and its remaining open risk
- The **ending account value** and the week's percentage return
- A three-line weekly review: where the money was made, where it was lost, and the rule that mattered most

What This Week Tests

Skill	Decision Points	Re-Study
Position sizing by risk	1, 8	AA-19, PP-05
Refusing unplanned trades	2, 11, 14	AA-20, AA-21
Structure choice under a risk cap	4, 7	AA3-02, AA3-04
Written exit rules	5, 10	AA3-05, AA3-12
Event discipline	6, 7, 9	AA-10, AA2-06
Book-level risk	8, 9	AA3-14
Stops, gaps, and pre-commitment	3, 12, 13	AA3-11, AA-19
The honest ledger	15	AA-21, PP-07

Grading: 100 points total, **80 to pass**. Every Decision Point is scored in the separate grading key, with partial credit for correct method shown in your math. A week can be passed with a losing trade in it — it cannot be passed with broken rules in it.

> **RULE**
> The market does not grade your predictions. It grades your position size, your exits, and whether Friday-you followed the plan Monday-you wrote. That is the whole Capstone.



CU-12

CAPSTONE
GRADING KEY

Model answers and the standard: 100 points, 80 to pass.

Curriculum & Assessment · Team Alpha Trading

The Capstone — Grading Key

This key grades **The Capstone — One Simulated Week**. Grade it decision by decision, not by whether the week "made money." The simulated week was built so that a student who follows the written rules finishes ahead — and a student who breaks them can still finish ahead on dollars while failing the Capstone. Process is the score.

Total: 100 points. Pass mark: 80. Partial credit: award half of a Decision Point's points when the method is right but the arithmetic slips, or the choice is right but the stated reason is wrong. **Journal gate:** any day with no journal entry caps that day's Decision Points at half credit, whatever the answers say.

A note on Decision Point 10: selling 41 of 83 shares is the model answer. Selling 42 and keeping 41 is equally acceptable **if the student's math follows their own number** — and Decision Point 15 is then graded against the student's carried figures, not the model's. Consistency is what is being tested.

Monday

Decision Point 1 — Size the Swing (10 points)

Model answer. Risk per share = entry − stop = $84 − $80 = **$4.00**. Shares = $250 ÷ $4.00 = 62.5 → **62 shares** (always round DOWN — 63 shares risks $252, over the cap). Cost = 62 × $84 = **$5,208**. Planned risk = 62 × $4 = **$248**. Reward to target = 62 × ($96 − $84) = $744, a **3:1 reward-to-risk** — acceptable for a swing.

Points: 4 for the share count with correct rounding · 3 for cost and dollar risk · 3 for the 3:1 judgment.

Common wrong answers:

- **63 shares** ("62.5 rounds to 63") — reveals rounding toward more risk. The cap is a ceiling, not a target. Re-study: **AA-19**.
- **Sizing by cash** ("$25,000 account, so buy $5,000 worth") — reveals the student sizes positions by dollars spent instead of dollars risked; the same habit buys 10× too much when the stop is far away. Re-study: **AA-19**, then **EX-05**.
- **Refusing the trade** because the target is "too far" — reveals day-trader time horizons applied to a swing. Re-study: **AA3-11**.

Decision Point 2 — The Chase (5 points)

Model answer. Pass. VLTX has no plan, no base, and no definable support — so there is no stop, which means there is no position size, which means there is no trade. An 18% vertical move is also someone else's exit liquidity. The correct sentence in the journal is: "No stop = no size = no trade."

Points: 3 for passing · 2 for naming undefined risk as the reason.

Common wrong answers:

- **A small "lottery ticket" position** — reveals exception-making: rules that bend for exciting trades are not rules. Re-study: **AA-20**.
- **Buying with a "mental stop"** — reveals the student thinks a stop exists if they intend it. Intentions do not execute at 9:31 AM. Re-study: **AA-19** and **AA-21**.

Decision Point 3 — The Stop Question (5 points)

Model answer. The stop stays at $80. Stops move only at pre-written triggers, and no trigger has fired — a +$2 first day is noise inside a $4 risk plan. Breakeven stops on day one mostly manufacture stop-outs on ordinary pullbacks. Journal entry records: 62 shares NWRO, filled $84.00, close $86.00, unrealized **+$124.00**, rules check: clean.

Points: 3 for leaving the stop · 2 for a complete journal entry.

Common wrong answers:

- **Moving to $84 "for a free trade"** — reveals outcome-thinking: the student is managing feelings about the entry price instead of the plan. Re-study: **AA3-11**.
- **Moving the stop above entry to "lock in profit"** — reveals the student doesn't see that a stop inside the noise band is a near-guaranteed exit at the worst moment. Re-study: **AA-19**.

Tuesday

Decision Point 4 — Pick Your Structure (8 points)

Model answer. Structure A: max loss = $6.10 × 100 = **$610**; max gain = (20 − 6.10) × 100 = $1,390. The $610 loss **breaks the $250 cap at the minimum possible size** — A is ineligible, full stop. Structure B: max loss = $2.40 × 100 = **$240** ✓; max gain = (10 − 2.40) × 100 = **$760**. **Buy exactly 1 × Structure B for $240.**

Points: 3 for rejecting A with its dollar math · 3 for B's max loss and max gain · 2 for choosing exactly one spread.

Common wrong answers:

- **Choosing A "because it's more likely to win"** — reveals probability talk being used to override a hard risk ceiling. Likelihood is not the constraint; survival is. Re-study: **AA3-02**.
- **Buying A and B** ($850 total risk) — reveals the student treats each position's cap as separate from the account's. Re-study: **AA3-04**.
- **Two of Structure B** ($480) — reveals the cap being treated as a suggestion once a trade "looks good." Re-study: **AA3-04**.

Decision Point 5 — The Exit Rule (7 points)

Model answer. Sell at $4.90. The written plan said exit at 2× debit ($4.80) or 3:30 PM; the trigger fired at 1:15 PM. Profit = ($4.90 − $2.40) × 100 = **+$250.00**. That SPX closed higher is irrelevant — the exit rule was written before the emotion existed, precisely for this moment.

Points: 4 for exiting per the rule · 3 for the exact profit math.

Common wrong answers:

- **Holding to the close "because the trend is strong"** — reveals improvised exits: the student has entries planned and exits negotiated live, which is backwards. Re-study: **AA3-05**.
- **"Sell half"** — of a one-spread position, this is impossible; it reveals the student doesn't track their own size. Re-study: **AA3-02**.

Decision Point 6 — The Night Before CPI (5 points)

Model answer. Hold NWRO per plan — it was sized at 1% with a working stop, which is exactly the construction that lets you ignore a CPI morning. **No new positions before the print, no 0DTE until after the release settles,** no additions tonight. The one check: confirm NWRO has **no earnings of its own this week** (it reports next week — the event this week is its competitor's, Thursday).

Points: 2 for no adds and no pre-print trades · 2 for the position and stop left untouched · 1 for running the earnings-calendar check.

Common wrong answers:

- **Selling NWRO "ahead of CPI chaos"** — reveals event fear overriding a correctly sized position; the stop already prices the chaos. Re-study: **AA-10** and **AA2-06**.
- **Buying protective puts tonight** without computing the cost — reveals hedging as a feeling. A costed hedge inside the risk cap, written into the plan, could earn partial credit; an unexamined one earns none. Re-study: **AA2-06**.

Wednesday

Decision Point 7 — Trading the Print (7 points)

Model answer. Pass — and the trade fails twice independently. (1) Size: $7.50 × 100 = **$750 maximum loss, triple the $250 cap.** (2) Process: your plan forbids trading the print's first spike — implied volatility is at its peak, spreads are at their widest, and SPX has already fallen 37 points from the close before you can act. Either reason alone kills the trade.

Points: 4 for passing · 3 for the reasons (full credit requires at least the size math; both reasons is the complete answer).

Common wrong answers:

- **Buying "because hot CPI means a down day"** — reveals headline trading: a narrative substituted for a plan, bought at the most expensive volatility of the week. Re-study: **AA-10**.
- **"Buy a third of a position"** — reveals the student doesn't know spreads trade in whole contracts; the minimum size was the disqualifier. Re-study: **AA3-02**.

Decision Point 8 — The Second Position (10 points)

Model answer. Risk per share = $52 − $49 = **$3.00**. Shares = $250 ÷ $3.00 = 83.3 → **83 shares**. Cost = 83 × $52 = **$4,316**. Dollar risk = 83 × $3 = **$249**. The forgotten check — **total open risk: NWRO $248 + HELX $249 = $497**, well under the $1,250 cap. Reward-to-risk = $9 ÷ $3 = **3:1. Take the trade.**

Points: 4 for the share math · 3 for the total-open-risk check · 3 for cost and the 3:1 confirmation.

Common wrong answers:

- **Correct shares, no total-risk check** — the answer coincides with the model, but the process has a hole that will matter on a fuller book. Half credit for this point's check portion. Re-study: **AA3-14**.
- **Sizing by position cost** ("5% of the account = $1,250 → 24 shares") — reveals cost-based sizing again: the stop distance, not the budget line, sets size. Re-study: **AA-19**.
- **Refusing because "two positions is too many"** — reveals an invented rule; the Academy caps risk in dollars, not position count. Re-study: **AA3-14**.

Decision Point 9 — Hold, Sell, or Double? (6 points)

Model answer. (B) Hold per plan. The position was built for exactly this: 1% size, a stop at $80, and a written commitment (made at Decision Point 12's stage of the week) to exit at the open if the gap comes. The protection against Friday's gap was purchased on Monday — it's called position size. Selling tonight at $85.20 abandons a valid, above-entry position for a feeling; adding is event gambling.

Points: 4 for holding · 2 for articulating that size + pre-commitment is the protection.

Common wrong answers:

- **(A) Sell "to be safe"** — reveals risk-avoidance dressed as prudence. The position was already as safe as a swing position gets; the student is trading anxiety, not risk. Re-study: **AA3-11** and **AA-20**.
- **(C) Add after it "survived CPI"** — reveals survivorship thinking: one survived event is not evidence about the next one. Re-study: **AA3-14**.

Thursday

Decision Point 10 — Execute the Rule (10 points)

Model answer. The trigger was +2R = $58.00; HELX printed $58.30. **Sell half: 41 shares at $58.30** (half of 83, rounded down), proceeds $2,390.30. Realized profit = 41 × ($58.30 − $52.00) = 41 × $6.30 = **+$258.30**. **Keep 42 shares; move their stop to $52.00 (breakeven).** Open risk on HELX afterward: **$0**.

Points: 4 for selling half with the right share count · 3 for the realized-profit math · 3 for the stop move and the $0 remaining risk.

Common wrong answers:

- **Selling all 83** — reveals the student treats a partial-profit rule as a full exit; the runner half was the entire point of the rule. Re-study: **AA3-12**.
- **Holding all "because it's running"** — the same broken rule in the other direction: the trigger fired and was negotiated away. Re-study: **AA3-12**.
- **Moving the stop but forgetting the sale** (or the reverse) — reveals checklist-free execution; the rule was a two-part instruction. Re-study: **AA-21**.

Decision Point 11 — The Trade That Fits the Cap (5 points)

Model answer. Pass. Yes, $180 fits the risk cap — but the cap is a **necessary** condition, not a **sufficient** one. This trade has no written plan, no defined thesis beyond "bounce," and was invented at 2:30 PM by watching a fading tape. It fails the plan test that Decision Points 2 and 7 were graded on.

Points: 3 for passing · 2 for naming "no plan" rather than the size as the deciding rule.

Common wrong answers:

- **Taking it "because the risk is only $180"** — reveals cap-only thinking: the student believes small size laundered an unplanned trade into a good one. Re-study: **AA-21** and **AA3-05**.
- **Taking the same idea on SPY "to be safe"** — reveals wrapper-shopping: a different ticker doesn't convert an unplanned trade into a planned one. Re-study: **AA-20**.

Decision Point 12 — Write Friday's Plan Tonight (5 points)

Model answer. The plan must say, in substance: *Stop stays at $80. If NWRO gaps below $80 on the peer print, I exit all 62 shares at the opening print — whatever it is — with no renegotiation and no averaging down. If it holds above $80 or gaps up, I hold per the original plan. HELX: 42 shares, stop $52, no action needed.* Full credit requires the gap-down branch to be an unconditional exit written **before** the outcome is known.

Points: 3 for the explicit, unconditional gap-exit commitment · 2 for covering both branches and HELX.

Common wrong answers:

- **"I'll decide in the morning based on how it looks"** — reveals the student believes a decision deferred is a decision made; Friday's open allows about nine seconds of "looking." Re-study: **AA-21**.
- **Widening the stop to $75 "to give it room"** — reveals pre-event stop-widening: planned risk quietly becomes 62 × $9 = **$558**, more than double the cap, decided the night before a known catalyst. Re-study: **AA-19**.

Friday

Decision Point 13 — The Gap Test (8 points)

Model answer. Exit all 62 shares at the $79.40 opening print, per last night's written plan. Realized = 62 × ($79.40 − $84.00) = 62 × (−$4.60) = **−$285.20**. That is **$37.20 worse** than the planned $248 loss: the gap jumped the stop by $0.60 a share, and the stop became a market order at the open. This is the known, priced-in cost of overnight event risk — and the reason the position was 1% in the first place. Note the day's realized loss, $285.20, still sits inside the $500 daily limit: no rule was broken by this loss. The loss was the plan working.

Points: 5 for exiting everything at the open · 3 for the realized math including the gap explanation.

Common wrong answers:

- **Holding "because it will bounce"** — reveals hope substituted for the exit written twelve hours earlier. This is the single most expensive sentence in trading. Re-study: **EX-06** and **AA-20**.
- **Averaging down at $79.40** — reveals the student doubling a broken position into options expiration, converting a planned 1% loss into an unplanned campaign. Re-study: **AA-19** and **EX-06**.
- **Selling half** — reveals half-measures against a written exit; the plan did not say "exit the shares you feel like." Re-study: **AA3-11**.

Decision Point 14 — Free Money? (4 points)

Model answer. Pass. A naked short call has **undefined risk** — there is no price at which the loss stops, and Academy rules ban undefined-risk structures at any size. "Pinned" is a tendency options expiration creates, not a law of physics; one headline un-pins it, and the seller of that call owns all of the un-pinning. There was also no plan for this trade — it fails that test too.

Points: 2 for passing · 2 for the undefined-risk reason.

Common wrong answers:

- **Selling it "small"** — reveals the belief that size fixes structure. Naked is naked at one contract; many brokers will not even permit the position in an account this size. Re-study: **AA-14**.

- **Selling a defined-risk call spread instead** — the instinct toward defined risk is right, but inventing a new structure at 1:00 PM on expiration day is still unplanned trading. Maximum half credit. Re-study: **AA3-05**.

Decision Point 15 — Close the Books (5 points)

Model answer (using the model's 41-share sale at Decision Point 10):

- **Realized P&L:** Tuesday spread +$250.00 · Thursday HELX half +$258.30 · Friday NWRO −$285.20 → **total +$223.10**
- **Cash: $23,039.10**
- **Still held:** 42 shares HELX at the $56.60 close = **$2,377.20**, unrealized **+$193.20**, stop at $52.00 → remaining open risk **$0**
- **Ending account value:** $23,039.10 + $2,377.20 = **$25,416.30** — up **+$416.30, +1.67%** on the week
- **Review:** the money was made by two written rules (the 2× exit, the 2R half-off); the only loss came from a known gap risk that had been sized at 1% on Monday; the rule that mattered most was the pre-commitment — every hard decision of the week had been made the night before it was needed.

Points: 2 for the realized total · 2 for the ending account value · 1 for the open-risk statement and review.

Common wrong answers:

- **Realized = +$508.30** — Friday's loss quietly dropped from the books; reveals a ledger kept from memory instead of records. Re-study: **PP-07**.
- **HELX carried at its $52 cost** — reveals the student doesn't mark positions to market; an account statement never asks what you paid. Re-study: **AA-04**.
- **Counting the +$193.20 unrealized as realized profit** — reveals the two ledgers are blended; money you could lose back tomorrow is not money banked. Re-study: **AA-04**.

The Model Ledger

Day	Cash	Open Positions at the Close	Realized So Far	Account Value
Start	$25,000.00	—	$0.00	$25,000.00
Monday	$19,792.00	NWRO 62 × $86.00 = $5,332.00	$0.00	$25,124.00
Tuesday	$20,042.00	NWRO 62 × $88.00 = $5,456.00	+$250.00	$25,498.00
Wednesday	$15,726.00	NWRO $5,282.40 + HELX 83 × $52.80 = $4,382.40	+$250.00	$25,390.80
Thursday	$18,116.30	NWRO $5,121.20 + HELX 42 × $57.80 = $2,427.60	+$508.30	$25,665.10
Friday	$23,039.10	HELX 42 × $56.60 = $2,377.20	+$223.10	$25,416.30

Cash audit trail: $25,000.00 − $5,208.00 (NWRO) − $240.00 (spread) + $490.00 (spread exit) − $4,316.00 (HELX) + $2,390.30 (HELX half) + $4,922.80 (NWRO exit) = **$23,039.10**. ✓

Reading the Score

- **90–100 — Board-ready.** The rules held under every pressure the week applies. Proceed to live size only at the smallest rung, per the Academy's progression.
- **80–89 — Pass.** Re-study the specific module codes flagged beside your misses before trading the pattern live; your errors are local, not structural.
- **60–79 — Not yet.** Do not re-attempt immediately. Read the pattern of your misses (below), re-study those modules, and re-run the week in a month.
- **Below 60 — Return to the Practice Pack workbooks (PP-01 → PP-05) and Level 2** before re-attempting. The Capstone found a foundation gap, which is what it is for.

Diagnose by pattern, not by total:

- Misses concentrated in sizing (Points 1, 4, 8) → **AA-19** + **PP-05**, then **EX-05**.
- Misses concentrated in discipline (Points 3, 5, 9, 10, 12) → **AA-21** + **AA3-05** + **AA3-15**.
- Misses concentrated in events (Points 6, 7, 13) → **AA-10** + **AA2-06** + **AA3-11**.
- Misses concentrated in refusal (Points 2, 11, 14) → **AA-20** + **EX-06**.

> **RULE**
> A passing Capstone does not mean the student predicted the week. It means that on Friday, the account was exactly where Monday's plan said it would be — the wins banked by rule, the one loss pre-sized, and nothing left to chance that a written sentence could have decided.



CU-14

DRILL DECK 1
CHARTS & CANDLES

60 rapid-fire reps. Reading builds knowledge; drills build reflexes.

Curriculum & Assessment · Team Alpha Trading

Drill Deck 1 — Charts & Candles: Rapid Fire

This is a deck of reps, not a lesson. Each drill gives you a chart in words — trend, candle, key levels — and asks for your call. Commit out loud *before* you check the Answer Key at the back: a drill you peek at teaches nothing.

> **NOTE**
> Plain candle language only — an **inside candle** fits entirely within the prior candle's range, a **directional candle** breaks only one side of it, and an **outside candle** takes out both sides. No system, no signals for sale.

How to Run This Deck

- Go in order first. Later, shuffle.
- Every answer needs three parts: the read, the bias, and the **invalidation** — the price that proves you wrong.
- Re-run your misses at the end.

Drill 1 — Inside Day at the Top

Situation: NVDA has run for two weeks. Yesterday ranged $124.10–$128.40. Today ranged $124.60–$127.90, closing mid-range. **Your call:** Name the candle. Where are the decision levels?

Drill 2 — Inside Day After a Big Move

Situation: A small-cap jumps from $40 to $46 in a day (range $40.30–$46.20). Next day it trades $43.80–$45.90, closing at $45.10. **Your call:** What does it mean? What triggers the next move?

Drill 3 — One Side Only, Up

Situation: Yesterday: high $75, low $72. Today opens at $73, pushes to $76.50, never trades below $72.80. **Your call:** Name the candle in plain terms. Bias? Invalidation?

Drill 4 — One Side Only, Down

Situation: Yesterday: high $210, low $205. Today: high $209, low $202, closing near $203. **Your call:** Name the candle. Bias? Invalidation?

Drill 5 — Both Sides Taken

Situation: Yesterday ranged $56–$58. Today trades as high as $59.25 and as low as $55.40, closing at $56.10. **Your call:** Name the candle. Why is chasing it dangerous?

Drill 6 — The Coil

Situation: A $150 stock prints three daily candles, each inside the one before. Ranges shrink $6 → $4 → $2.50; volume fades. **Your call:** What is price doing, and how do you prepare?

Drill 7 — Third Test of Support

Situation: Twice in two months a stock fell to $182 and bounced ($9, then $11). Today: low $182.10, close $184. **Your call:** Give the read. What must a bounce prove first?

Drill 8 — Rejected at Resistance

Situation: A stock capped at $95 four times opens at $93.80, runs to $94.80 with a long upper wick (thin line = rejection), closes $93.10. **Your call:** What did sellers say? When does a long make sense?

Drill 9 — The Floor Gives Way

Situation: Support at $60 held twice this year. Today the stock closes at $58.70 on the heaviest volume in three months. **Your call:** What changed today, and what does $60 become?

Drill 10 — The Retest From Below

Situation: Two weeks after breaking down through $60, the stock rallies back to $59.80 — and stalls there all afternoon. **Your call:** What is it testing? What close cancels the bearish read?

Drill 11 — Textbook Breakout

Situation: A stock has based between $40 and $44 for five weeks. Today it closes at $44.60 on twice its average volume. **Your call:** Breakout or not? Evidence, new support, stop placement.

Drill 12 — Midday Pop, Ugly Close

Situation: Same $40–$44 base. Today the stock pops to $45.10 by noon, then fades all afternoon and closes at $43.70. **Your call:** Breakout or fakeout (a false breakout)? What decides it?

Drill 13 — Barely Over the Line

Situation: Resistance: $44. Close: $44.05 — five cents over — on average volume. **Your call:** Confirmed or not? What do you do next?

Drill 14 — Trendline Snap

Situation: A rising trendline (diagonal line under price connecting higher lows) has caught this stock four times. Line at $52.50 today; close: $51.90, on rising volume. **Your call:** What happened to the uptrend? What does the line become now?

Drill 15 — The Wick Lied

Situation: Same rising trendline at $52.50. Today the stock dips to $51.80 mid-session — then rallies and closes at $53.40. **Your call:** Was the trendline broken? Defend it in one line.

Drill 16 — Downtrend Line Breaks

Situation: A falling trendline has capped every rally for three months; today it sits at $38. The stock closes at $38.90. **Your call:** Downtrend over? What is this break, and what isn't it?

Drill 17 — Gap Up That Held

Situation: A stock closes Friday at $70. Monday it opens at $74, dips only to $73.20, and closes at $75.10. **Your call:** Grade the gap. What zone matters on a pullback?

Drill 18 — Gap Up That Filled

Situation: Same Friday close ($70) and Monday open ($74) — but the stock slides all day and closes at $70.40, nearly filling the gap. **Your call:** What did the market do with the news? Bias now?

Drill 19 — Gap Through the Floor

Situation: Support is $85. After a guidance cut, the stock opens at $81 and closes at $80.20. Stops below $85 filled near the open. **Your call:** What happened to "support," and what is $85 now?

Drill 20 — Exhaustion Gap

Situation: After running $50 → $61 in five straight days, a stock gaps up again: opens $63, stalls, closes $61.50 near its low. **Your call:** Name this gap. The rule for fresh longs here?

Drill 21 — Staircase Up

Situation: Over six weeks: lows of $88, $91, $94 — and highs of $96, $99, $103. **Your call:** Describe the structure. What level ends it?

Drill 22 — Staircase Down

Situation: Rally highs of $120, $116, $112. The lows keep holding at $105. **Your call:** Bias? What price opens the next leg down?

Drill 23 — Top of the Range

Situation: A stock has chopped between $28 and $32 for six weeks, touching each edge three times. Today it trades at $31.80. **Your call:** What is the correct play — and the classic mistake?

Drill 24 — Middle of Nowhere

Situation: Same $28–$32 range, six weeks old. Today the stock sits at $30.10, dead center. **Your call:** A trader asks, "Anything to do here?" Answer him.

Drill 25 — Engulfing at Support

Situation: Support at $145. Yesterday: open $148.20, close $145.60. Today: open $145.30, low $144.90, close $149.90 — body covering yesterday's body. **Your call:** Name the pattern. Give the read, place the stop.

Drill 26 — Shooting Star

Situation: A stock rallies into resistance at $200. Today: open $198, high $203.40, close $197.60, with a long upper wick. **Your call:** Name the candle. Who defended what?

Drill 27 — The Hammer

Situation: Support sits near $75. Today: open $75.40, sold down to $72.80 midday, then bought back to close at $75.60 — a long lower wick. **Your call:** Name the candle, give the read, name the invalidation.

Drill 28 — Balance at the Top

Situation: After eight straight up days: open $88.10, close $88.20, range $87.20–$89.30 — a near-perfect doji (open and close almost equal; neither side won). **Your call:** Is this a sell signal? Answer precisely.

Drill 29 — One Wick Is Not a Reversal

Situation: A stock has fallen from $120 to $92 in three weeks. Today: open $92, low $89.50, close $93.80 — a long lower wick. **Your call:** Bottom or not? What must happen next?

Drill 30 — Through the 50-Day

Situation: A stock has ridden above its 50-day moving average (average of the last 50 closes) for weeks. Today it closes at $206.30, below the $210 average, on the month's heaviest volume. **Your call:** What changed? What does $210 become?

Drill 31 — Two Tops

Situation: A stock peaks at $118.20, dips to $110, rallies back to $117.80, and now falls through $110, closing at $109.40. **Your call:** Name it, say when it confirms, compute the measured target (the distance it projects).

Drill 32 — Two Bottoms

Situation: A stock bottoms at $42.10, bounces to $47, falls back to $41.90, then rallies and closes at $47.30. **Your call:** Name it. Compute the target. What did the close do?

Drill 33 — Head and Shoulders

Situation: Three peaks: $100, $106, $101. The dips between bottom at $96 — the neckline (support line under the pattern). Today it closes at $95.20. **Your call:** Name the pattern, and compute the measured target.

Drill 34 — The Flag

Situation: A stock spikes from $60 to $72 in three days. Then four days drifting $72 → $69.50 on shrinking volume, tight and orderly. **Your call:** Name the pattern, its trigger, and its invalidation.

Drill 35 — The Bounce That Isn't

Situation: A stock drops from $90 to $78 in a week. It then bounces to $81.50 over three days on light volume and stalls under the breakdown area. **Your call:** Rally, or bear flag (a weak bounce inside a downtrend)? What trigger resumes the drop?

Drill 36 — The Squeeze

Situation: For three weeks a stock's highs descend — $150, $148, $146 — while its lows rise — $138, $140, $142. Volume dries up. **Your call:** Name the shape. How do you trade it without guessing?

Drill 37 — Third Time Through

Situation: A stock poked above $50 twice — highs of $50.40 and $50.60 — and closed back under both times. On the third attempt it closes at $51.20 on heavy volume. **Your call:** How is this break different? Where's a long's stop?

Drill 38 — The Retest

Situation: A stock broke out by closing at $44.60 over $44 resistance. Two days later it pulls back to $44.20, holds, and closes green at $45. **Your call:** Why is this the best entry in the sequence? Risk per share from $45?

Drill 39 — Vertical

Situation: Five straight green days, each bigger than the last, on doubling volume. The final day jumps nearly +9%, from $80 to $87.20. **Your call:** Name this phase. The rule for fresh longs?

Drill 40 — Dead-Cat Bounce

Situation: A stock crashes from $100 to $64 in two days on bad earnings. Over three sessions it bounces to $71 on light volume and stalls. The old breakdown zone sits at $78–$85 overhead. **Your call:** Bottom or dead-cat bounce (a weak bounce after a crash)? Verdict, with evidence.

Drill 41 — Inside Week

Situation: On SPY's weekly chart, last week ranged $598–$612. This week's whole range — $601–$609 — fits inside it. **Your call:** What does it mean, and which two prices frame the next move?

Drill 42 — Outside Week

Situation: Last week ranged $240–$252. This week the stock runs to $258 — then collapses and closes the week at $238, below last week's low. **Your call:** Name it. What does it do to daily rallies that follow?

Drill 43 — Zone, Not a Line

Situation: Across three months, a stock has bounced from $118.50, then $119.20, then $118.80. It now trades at $119.40, easing toward it again. **Your call:** Where exactly is "support," and where do stops belong?

Drill 44 — The Magnet at $100

Situation: A stock approaches $100 for the first time. It stalls at $99.60 twice in two weeks, each time slipping back toward $96. **Your call:** Why is $100 a wall, and what counts as through?

Drill 45 — The Stop Is the Plan

Situation: Long from $52, stop at $50 (set at entry). Price: $50.30. The news "feels fine," and you want to move the stop to $48 for room. **Your call:** What do you do? Defend it with the math.

Drill 46 — The Chase

Situation: You watched a stock at $30 all morning, never bought. Now it's $33.60 — up 12% in an hour, still running, no pullback. **Your call:** Buy it or not? What's the disciplined alternative?

Drill 47 — Cheaper Is Not a Reason

Situation: Long from $68. The stock broke $64 support and trades at $61. A voice says: "Add here — it's cheaper, and my average cost improves." **Your call:** Answer the voice. What did the chart say at $64?

Drill 48 — The Almost Candle

Situation: Trigger: $65. With 20 minutes left, price touches $64.70 and the pattern looks 90% formed — but the candle hasn't closed. **Your call:** Act now or wait? State the rule on unclosed candles.

Drill 49 — Green Day Envy

Situation: A watchlist stock ran +6% today without you. Now an unfamiliar ticker is "doing the same thing" into the close, and you want in. **Your call:** Name the emotion, and give the ruling.

Drill 50 — Stopped, Then It Ran

Situation: Your stop at $45 got tagged by a dip to $44.90. The stock then reversed and closed at $47. You want to buy back immediately. **Your call:** Did the stop fail? What does re-entry require?

Drill 51 — Two Days Erased

Situation: Day 1: open $58.60, close $56.20 (red, at its low). Day 2: open $56, rallies all day, closes at $58.90 — above Day 1's open. **Your call:** What did Day 2 do to Day 1, and what cancels the read?

Drill 52 — Gap Down, Then Silence

Situation: A stock closes at $40.20, then gaps down: opens $36.90, ranges $35.80–$37.40, closes $36.20. Next day: a quiet $36.00–$37.10 range, inside the gap day's. **Your call:** Is this a bottom? Name both triggers and what each means.

Drill 53 — First Higher Low

Situation: A stock broke support at $90, slid to $84, bounced, then pulled back — and held at $86.50, above the $84 low. It now pushes up to $89. **Your call:** Grade the attempt. What price upgrades it to a story change?

Drill 54 — The Lower High

Situation: A stock rallied off its lows from $70 to $84, pulled back to $79, and bounced — but stalled at $82.30, below the $84 high. **Your call:** What is momentum saying? Which price decides the bounce's fate?

Drill 55 — Capitulation Candle

Situation: After a long downtrend: the biggest red candle and biggest volume day of the whole move. Low $46.80, close $48.20. **Your call:** Is this the bottom? Give the two-part honest answer.

Drill 56 — Post-News Balance

Situation: After an earnings gap, a stock settles into three quiet days between $102 and $105 on falling volume. **Your call:** Which two prices matter, and what is the middle for trading?

Drill 57 — The Long Base Breaks

Situation: A stock sat in an $18–$22 base for six months. Today it closes at $22.70 on triple its average volume. **Your call:** Why does base length matter? What's a long's first line of defense?

Drill 58 — The Trap Springs

Situation: Same $18–$22 base. The stock closes at $22.60 — then the very next day closes at $21.40, right back inside the base. **Your call:** Name it. The only correct action for breakout longs? The magnet below?

Drill 59 — Two Different Days

Situation: Yesterday SPY stair-stepped up all day and closed at its high. Today, by noon, SPY has crossed its opening price six times inside a 40-cent range ($582.10–$582.50). **Your call:** What changed, and what does it demand from your playbook?

Drill 60 — The Whole Picture

Situation: The weekly chart shows higher highs and higher lows. The daily chart has pulled back four days to $130 — old resistance already flipped to support. Today prints a small inside day, $129.80–$131.20, right on that level. **Your call:** Put it together: the setup, the trigger, and the stop.

Answer Key

1. Inside candle: today's range fits inside yesterday's $124.10–$128.40. Trade the outer edges: close above $128.40 = strength; below $124.10 = weakness.

2. A pause, not a reversal. Bias stays up while the big range holds. Trigger: a break of $46.20; below $40.30, cancelled.

3. Directional candle, up: only the prior high ($75) broke. Buyers control while price holds above $75. Invalidation: a trade below $72.

4. Directional candle, down: only the prior low ($205) broke; $210 survived. Sellers control — the close near $203 confirms it. Invalidation: back above $210.

5. Outside candle: both sides of $56–$58 taken out, both camps trapped, and the $56.10 close says neither won.

6. Compression (a coil): shrinking ranges and fading volume store energy. Mark the three-day range's edges; trade the break on a close.

7. Support is alive: a third hold at $182. But a bounce trade needs proof first: a strong up candle. Stop below $182.

8. Sellers defended just under $95; the $94.80 push was rejected into a weak close. No long until a candle *closes* above $95.

9. Support broke: a $58.70 close on three-month-high volume is a verdict, not a dip. $60 flips to first resistance on any bounce.

10. A retest of broken support from below: the old floor is now a ceiling. Cancels only on a close back above $60.

11. Yes: a *close* above the $44 top of a five-week base, on double volume. $44 becomes first support. Stop below roughly $43.50.

12. Fakeout. The decider is the close: $43.70 is back inside the $40–$44 base — the noon spike trapped breakout buyers.

13. Not confirmed: five cents over the line on average volume is a coin flip. Wait for follow-through, or a retest holding $44.

14. The uptrend is damaged: a *close* below a four-times-tested trendline, on rising volume. The line flips to resistance near $52.50 on bounces. Longs de-risk until price reclaims it.

15. No. Breaks are judged on closes, not wicks: the $53.40 close sits back above the $52.50 line.

16. The first crack in the downtrend, not proof it's over. A trend *change* needs a higher low next, then a higher high.

17. A strong gap: opened up $4, dipped only to $73.20, closed at the highs ($75.10). The zone that matters on a pullback is the gap itself, $70–$74.

18. The market sold the news: a same-day gap fill means sellers exited into the pop. Bias: neutral-to-negative until a close reclaims $74.

19. Support wasn't broken, it was *jumped*: the gap through $85 is why stops below it filled near $81. $85 is now resistance.

20. A likely exhaustion gap: the last, biggest gap ending a vertical run, going nowhere — opened $63, closed $61.50 near the lows. Fresh longs: none.

21. A textbook uptrend: higher highs ($96 → $99 → $103), higher lows ($88 → $91 → $94). A close below $94, the last low, ends it.

22. Bearish pressure: rallies die lower each time ($120 → $116 → $112). The floor is $105; a close below it opens the next leg down.

23. You're at range resistance: fade the edge (stop above $32) or do nothing. The classic mistake: buying a breakout that hasn't happened.

24. Nothing. $30.10 is the middle — the chart's worst risk-to-reward, no level to lean on. Edge lives at the edges: $28, $32, or a confirmed break.

25. A bullish engulfing candle at support: sellers pushed to $144.90; buyers took back yesterday's body, closing at $149.90. Stop: below $144.90.

26. A shooting star at resistance: buyers spiked through $200 to $203.40; sellers closed it at $197.60, below the open. $200+ belongs to sellers.

27. A hammer: sellers drove price to $72.80; buyers bought it all back by the close. Bullish at support, but an attempt needing follow-through. Invalidation: a close below $72.80.

28. No, not by itself. A doji after eight up days means balance. A warning, not an exit. The turn starts only on a close below $87.20.

29. Not yet: structure is still lower highs and lower lows; the wick only says buyers appeared at $89.50. A bottom needs a higher low, then a close above a prior lower high.

30. Real damage: first close *below* the 50-day average, on the month's heaviest volume. $210 flips to resistance; longs de-risk until it's reclaimed.

31. A double top — two peaks at one ceiling ($118.20, $117.80). Confirms when the $110 neckline (the dip between peaks) breaks — today's $109.40 close did. Height $118 − $110 = $8. Target: $110 − $8 = **$102**.

32. A double bottom — two lows at one floor ($42.10, $41.90). The $47.30 close breaks the $47 neckline (the peak between the lows), confirming it. Height $47 − $42 = $5. Target: $47 + $5 = **$52**. Below $47 cancels.

33. A head and shoulders top: shoulders $100 and $101, head $106. The $95.20 close breaks the $96 neckline. Depth $106 − $96 = $10. Target: $96 − $10 = **$86**. Above $96 cancels.

34. A bull flag: a sharp pole ($60 → $72), then a tight, low-volume drift — rest, not reversal. Trigger: a close above $72. Invalidation: losing $69.50, the flag's low.

35. A bear flag until proven otherwise: three days, light volume, stalling under the breakdown zone. The drop resumes on a break below $78.

36. A symmetrical triangle: highs and lows squeezing together. Don't guess direction: mark the edges (about $146 above, $142 below); trade the *close* outside them.

37. What the first two lacked: a *close* above $50, on heavy volume. The earlier pokes were fakeouts — highs through, closes back under. Stop: back below $50.

38. Everything is confirmed: breakout closed, level flipped, retest *held* at $44.20. You buy proof instead of hope. Risk from $45 to a stop under $44: roughly $1 per share.

39. A climax (parabolic) phase — a move's final vertical sprint. A +9% finale after five accelerating days is exhaustion at speed, not strength to buy. Rule: no fresh longs atop a vertical run.

40. A dead-cat bounce: it recovers barely a fifth of the $100 → $64 crash, rides light volume, and stalls far below the $78–$85 supply zone.

41. Weekly compression — the bigger timeframe coiling, outranking daily noise. Last week's edges frame the next move: weekly close above $612 = strength, below $598 = weakness.

42. A weekly outside candle closing at its lows — the most bearish weekly print: prior high ($252) *and* low taken out, close $238. Daily rallies after it are guilty until proven innocent. Cancel: a close above $252.

43. Support is a *zone*, about $118.50–$119.50 — three bounces at three different prices prove there's no penny-perfect line. Stops belong *below the zone*, under $118.50 with a small buffer.

44. Round numbers are psychological levels: orders and headlines cluster at $100. Through means a *close* above $100 that holds on a retest — a wick doesn't count.

45. Nothing — the stop stays. Entry $52, stop $50: an agreed $2 risk. Moving it to $48 doubles the loss to $4, mid-trade, by hope. A stop you move is a stop you don't have.

46. No. Your entry was $30; at $33.60 you'd buy the top of a vertical move, where early buyers take profits. Alternative: alert a pullback to the breakout area, or pass.

47. That voice turns small losses into big ones. The chart ruled at $64: support broke, the idea failed. Adding at $61 doubles a proven-wrong position. "Cheaper" is also a property of falling knives.

48. Wait. A candle isn't evidence until it closes; the last 20 minutes can erase the shape (see Drill 12). Take the confirmed close or tomorrow's follow-through.

49. FOMO — fear of missing out. No trade. An unfamiliar ticker has no plan, levels, stop, or sizing; entering is gambling wearing a ticker symbol.

50. No: the stop worked — it capped the loss as planned, and the $44.90 dip could have kept falling. Re-entry is a *new* trade: fresh trigger, stop, sizing.

51. A two-day reversal: Day 2 erased Day 1's drop and closed above its open ($58.90 vs $58.60). Cancels on a close under $56.

52. No. The inside day ($36.00–$37.10, inside the gap day's $35.80–$37.40) is a *pause*, not a reversal. Close below $35.80: drop resumes. Above $37.40: only the first relief step.

53. A genuine attempt: holding $86.50, above the $84 low, is the first higher low. But price sits under $90, broken support turned resistance. A close above $90 upgrades attempt to story change.

54. Momentum is fading: the bounce made a *lower high* ($82.30 vs $84). The decider is $79, the pullback low: hold it, the bounce survives; lose it, it likely fails toward the $70-area lows.

55. (1) Bottom *conditions* are present: maximum volume, maximum fear, close off the lows ($48.20 vs $46.80). (2) But capitulation is a condition, not a trigger: bottoms confirm only when a higher low holds.

56. Only the edges matter: $105 above, $102 below. The next move starts with a close outside that $3 range. The middle, about $103.50, is no-man's land.

57. Base length is stored energy: six months of positions built inside $18–$22; a $22.70 close on triple volume says demand overwhelmed them all. A long's first defense: $22 must hold as support.

58. A bull trap: the breakout failed, confirmed by the $21.40 close back inside. Breakout longs exit — the reason no longer exists. Magnet below: the base bottom, $18.

59. The day type changed. Yesterday: a trend day — one-directional, closing at the high; holding works. Today: a chop day — six crosses of the open in 40 cents; chasing gets punished.

60. The complete stack: weekly uptrend, daily pullback into $130 (flipped support), inside day on the level. Trigger: break above $131.20. Stop: under $129.50 — if $130 fails on a close, the read is wrong.

> **RULE**
> The candle is the evidence, the level is the argument, and the close is the verdict. Read all three before you risk a dollar.



CU-15

DRILL DECK 2
RISK & MATH

60 rapid-fire reps, every answer with the work shown.

Curriculum & Assessment · Team Alpha Trading

Drill Deck 2 — Risk & Options Math: Rapid Fire

Reading about risk is one thing. Doing the math in five seconds, mid-trade, with real money moving — that is the skill. This deck is 60 rapid-fire drills on the arithmetic that protects your account: position sizing, loss recovery, options profit and loss, spread math, futures conversions, and expectancy.

How to use it: read the **Situation**, answer **Your call** out loud or on paper, then check the Answer Key at the back — every answer shows its math. Miss one? Redo it until the formula is automatic, and re-study the module behind it (sizing and risk: AA-19; options: AA-11 to AA-14; futures points: AA-15). Scoring: 55 or more, sharp. 45–54, solid — redo the misses. Under 45, stop and re-study before you trade.

> **NOTE**
> Every number here is a teaching example, not a recommendation. The formulas are the permanent part — the prices are just practice dummies.

Drill 1 — Sizing: The Clean $2 Stop

Situation: Your account is $10,000 and your rule is risk 1% per trade. You want to buy a stock at $50 with a stop at $48. **Your call:** How many shares do you buy?

Drill 2 — Sizing: Round Down, Always

Situation: Account $25,000, risk 1%. Entry $80, stop $74. The raw division does not come out even. **Your call:** How many shares — and do you round up or down?

Drill 3 — Sizing: The 2% Aggressive Plan

Situation: Account $5,000, and your written plan allows 2% risk per trade. Entry $25, stop $23.50. **Your call:** How many shares?

Drill 4 — Sizing: Half-Percent Discipline

Situation: Account $50,000, risk 0.5% per trade. Entry $120, stop $112. **Your call:** How many shares?

Drill 5 — Sizing: What Is the Position Worth?

Situation: Account $20,000, risk 1%. Entry $35, stop $33. **Your call:** How many shares, and what is the total dollar value of the position?

Drill 6 — Spot the Break: "It Just Felt Right"

Situation: Account $10,000 with a 1% risk rule. A trader buys 200 shares at $60 with a stop at $57 because the setup "felt strong." **Your call:** How much is he actually risking, what percentage of his account is that, and how many shares should he have bought?

Drill 7 — Sizing: The $1 Corridor

Situation: Account $8,000, risk 1%. Entry $16, stop $15. **Your call:** How many shares?

Drill 8 — Sizing: The Big Account

Situation: Account $100,000, risk 1%. Entry $210, stop $200. **Your call:** How many shares, and what size position does that create?

Drill 9 — Sizing in Reverse

Situation: A trader holds 150 shares, entered at $40, stop at $38. She followed her 1% rule exactly. **Your call:** How big is her account?

Drill 10 — Sizing a Short

Situation: Account $12,000, risk 1%. You short a stock at $30; your cover stop is $32 — if price rises there, you buy back and take the loss. **Your call:** How many shares can you short?

Drill 11 — Recovery: Down 10%

Situation: Your account drops 10%. **Your call:** What percentage gain do you now need just to get back to even?

Drill 12 — Recovery: Down 25%

Situation: Your account drops 25%. **Your call:** What gain gets you back to even?

Drill 13 — Recovery: Down 50%

Situation: Your account is cut in half. **Your call:** What gain gets you back to even?

Drill 14 — Recovery: Down 20%

Situation: Your account drops 20%. **Your call:** What gain gets you back to even?

Drill 15 — Recovery in Dollars

Situation: A $10,000 account loses $2,500. **Your call:** What is left, what percentage did you lose, and what percentage gain restores the account?

Drill 16 — Recovery: Down 75%

Situation: Your account drops 75%. **Your call:** What gain gets you back to even?

Drill 17 — Options: The Call That Ran

Situation: You bought 1 call, $100 strike, for a $3.00 premium. At expiration the stock is $108. **Your call:** What is your profit in dollars?

Drill 18 — Options: Right Direction, Still Red

Situation: Same call — $100 strike, $3.00 premium. At expiration the stock is $101, above your strike. **Your call:** Profit or loss, and how much?

Drill 19 — Options: Call Breakeven

Situation: You buy a $50 strike call for a $2.50 premium. **Your call:** At expiration, what stock price makes you exactly break even?

Drill 20 — Options: Two Puts Pay Off

Situation: You bought 2 puts, $60 strike, for $1.80 premium each. At expiration the stock is $52. **Your call:** What did you pay, and what is your total profit?

Drill 21 — Options: Put Breakeven

Situation: You buy a $75 strike put for a $4.00 premium. **Your call:** At expiration, what stock price makes you exactly break even?

Drill 22 — Options: Cutting a Fading Call

Situation: You bought 1 call for a $2.00 premium. The stock stalls and the call now trades at $0.50. You sell it. **Your call:** What is your loss in dollars?

Drill 23 — Options: Pinned at the Strike

Situation: You bought a call for a $2.20 premium. At expiration the stock closes exactly at your strike price. **Your call:** What is the call worth, and what is your result?

Drill 24 — Options: The $300 Budget

Situation: Your plan lets you spend at most $300 on one options position. The premium is $1.25 per contract. **Your call:** How many contracts can you buy?

Drill 25 — Options: The $45 Call

Situation: You bought 1 call, $45 strike, for a $3.20 premium. At expiration the stock is $51. **Your call:** What is your profit?

Drill 26 — Options: The $90 Put

Situation: You bought 1 put, $90 strike, for a $2.60 premium. At expiration the stock is $84. **Your call:** What is your profit?

Drill 27 — Options: The Melting 0DTE

Situation: You hold a same-day-expiration call you bought for $1.50. Twenty minutes from the close it trades at $0.30 and the stock is going nowhere. **Your call:** Per contract, what is the most you can still lose if you hold it to expiration?

Drill 28 — Options: Splitting the Premium

Situation: A stock trades at $74. Its $70 strike call trades at $5.30. **Your call:** How much of that premium is intrinsic value (the part backed by the stock's price right now), and how much is time value?

Drill 29 — Spreads: Bull Call Max Gain

Situation: You buy the $100 call for $3.00 and sell the $105 call for $1.20 — a bull call spread, 5 wide. **Your call:** What is your maximum possible gain per spread?

Drill 30 — Spreads: Bull Call Breakeven

Situation: You buy the $50 call for $2.40 and sell the $55 call for $0.90. **Your call:** What is your net debit, and what stock price at expiration breaks you even?

Drill 31 — Spreads: Bear Put Max Loss

Situation: You buy the $80 put for $2.60 and sell the $75 put for $1.10 — a bear put spread. **Your call:** What is the most you can lose per spread?

Drill 32 — Spreads: Credit Spread Max Loss

Situation: You sell the $95 put for $1.40 and buy the $90 put for $0.60 — a put credit spread, 5 wide. **Your call:** What is the most you can lose per spread?

Drill 33 — Spreads: The Iron Condor's Bad Day

Situation: You sold an iron condor with 5-wide wings and collected $1.50 total credit. Price blasts through one side. **Your call:** What is your maximum loss per condor?

Drill 34 — Spreads: Credit Spread Breakeven

Situation: You sold a put credit spread: short the $120 put, long the $115 put, total credit $1.60. **Your call:** At expiration, what stock price breaks you even?

Drill 35 — Spreads: Landing Between the Strikes

Situation: You own a $60/$65 bull call spread bought for a $2.00 debit. At expiration the stock is $63. **Your call:** What is the spread worth, and what is your profit?

Drill 36 — Spreads: Banking a Winner Early

Situation: You sold a credit spread for $1.20. It now costs $0.40 to buy it back and close. **Your call:** If you close now, what profit do you lock in per spread?

Drill 37 — Spot the Break: "Premium Was Too Good"

Situation: A trader sells a naked (unprotected) call on a hot stock because "the premium was too good to pass up." The stock gaps up hard overnight. **Your call:** What rule did he break, and what is his maximum loss?

Drill 38 — Spreads: The Covered Call, Called Away

Situation: You own 100 shares bought at $48. You sold the $50 call for a $1.30 premium. The stock rises and your shares are called away at $50. **Your call:** Counting both the shares and the premium, what is your total profit?

Drill 39 — Spreads: Cash Behind the Put

Situation: You sell 1 cash-secured put, $40 strike, for a $1.00 premium — meaning you must be ready to buy 100 shares at $40 if assigned. **Your call:** How much cash must you set aside, and how much premium do you collect?

Drill 40 — Spreads: Which One Can Hurt More?

Situation: Spread A: 5 wide, $2.00 credit. Spread B: 10 wide, $4.50 credit. Both are credit spreads. **Your call:** Which has the larger maximum loss, and what is it?

Drill 41 — Futures: The ES Trend Day

Situation: You are long 1 ES contract from 6,000. You exit at 6,012. (ES = $50 per point.) **Your call:** What is your profit?

Drill 42 — Futures: Three Micros

Situation: You are long 3 MES contracts and price rises 8 points. (MES = $5 per point.) **Your call:** What is your profit?

Drill 43 — Futures: Counting ES Ticks

Situation: ES moves from 6,000 to 6,003.50. The ES minimum tick is 0.25, worth $12.50. **Your call:** How many ticks is the move, and what is it worth on 1 contract?

Drill 44 — Futures: The NQ Short

Situation: You short 1 NQ at 21,000 and cover at 20,975. (NQ = $20 per point.) **Your call:** What is your profit?

Drill 45 — Futures: Gold Runs

Situation: You are long 1 GC from 3,300 and gold reaches 3,315. (GC = $100 per point.) **Your call:** What is your profit?

Drill 46 — Futures: The MNQ Stops Out

Situation: You are long 2 MNQ contracts and price falls 15 points against you. (MNQ = $2 per point.) **Your call:** What is your loss?

Drill 47 — Futures: Sizing the Stop

Situation: Account $10,000, risk 1%. Your MES trade idea needs a 20-point stop. (MES = $5 per point.) Your friend suggests "just use ES, same chart." **Your call:** How many MES contracts fit your risk — and how many ES contracts fit?

Drill 48 — Futures: The 1% Day

Situation: ES trades at 6,000 and the index moves exactly 1% — 60 points — while you hold 1 ES contract the wrong way. **Your call:** How much do you lose?

Drill 49 — Futures: Micro Gold

Situation: You are long 2 MGC contracts and gold rises 22 points. (MGC = $10 per point.) **Your call:** What is your profit?

Drill 50 — Futures: Crude by the Tick

Situation: You are long 1 CL and crude oil rises $1.40. (CL = $1,000 per point — each $0.01 tick is $10.) **Your call:** What is your profit?

Drill 51 — Expectancy: The 40% System

Situation: A system wins 40% of the time. Average win $300, average loss $150. **Your call:** What is the expectancy — the average result per trade?

Drill 52 — Expectancy: Winning More, Losing Money

Situation: A system wins 60% of the time. Average win $100, average loss $200. **Your call:** What is the expectancy, and is this system profitable?

Drill 53 — R: The Clean Winner

Situation: You risked $200 on a trade (that distance to your stop was "1R") and you made $500. **Your call:** How many R did you earn?

Drill 54 — Spot the Break: The Moved Stop

Situation: A trader planned to risk $150. Mid-trade, "giving it room," he moved his stop twice and finally exited for a $450 loss. **Your call:** How many R did he actually lose, and what rule did he break?

Drill 55 — Spot the Break: Trade Number Seven

Situation: A written plan says: maximum 3 trades per day, stop at 2 losses. At noon the trader is down 2 trades — and places his seventh trade of the day "to win it back." **Your call:** Name the rules being broken.

Drill 56 — Spot the Break: Averaging Down

Situation: A trader buys 100 shares at $50 with no stop. At $44 he buys 200 more "to lower my average cost." **Your call:** What is his new average cost per share — and what rule is broken?

Drill 57 — The Daily Limit Says No

Situation: Your written plan sets a $300 daily loss limit. You are down exactly $300 at 1 PM when a textbook-perfect setup appears. **Your call:** Do you take it? Why?

Drill 58 — Expectancy: The Win Rate You Need

Situation: Your average win is $200 and your average loss is $100. **Your call:** What win rate do you need just to break even?

Drill 59 — The Open-Risk Audit

Situation: You hold four open positions risking $150, $200, $100, and $250 (entry to stop). Your account is $20,000. **Your call:** What is your total open risk, in dollars and as a percentage of the account?

Drill 60 — Expectancy: The Long Run

Situation: Your journal shows a proven expectancy of +$25 per trade after 200 trades of live data. **Your call:** If the edge holds, what do the next 200 trades add up to?

Answer Key

1. **50 shares.** Risk money = $10,000 × 1% = $100. Risk per share = $50 − $48 = $2. $100 ÷ $2 = 50 shares.
2. **41 shares — round down.** $25,000 × 1% = $250; $250 ÷ $6 = 41.7. Round to 41 (real risk 41 × $6 = $246). Rounding up would risk $252 — more than your rule allows.
3. **66 shares.** $5,000 × 2% = $100. Risk per share = $25 − $23.50 = $1.50. $100 ÷ $1.50 = 66.7 → 66 shares.
4. **31 shares.** $50,000 × 0.5% = $250. Risk per share = $8. $250 ÷ $8 = 31.25 → 31 shares.
5. **100 shares, a $3,500 position.** $20,000 × 1% = $200; $200 ÷ $2 = 100 shares. 100 × $35 = $3,500. Notice: a $3,500 position risks only $200 because the stop does the sizing.
6. **He risks $600 — 6% of his account — and should have bought 33 shares.** 200 × ($60 − $57) = $600. His rule allows $100, so $100 ÷ $3 = 33 shares. "Feeling strong" is not a sizing formula.
7. **80 shares.** $8,000 × 1% = $80. Risk per share = $1. $80 ÷ $1 = 80 shares.
8. **100 shares, a $21,000 position.** $100,000 × 1% = $1,000. Risk per share = $10. 1,000 ÷ 10 = 100 shares; 100 × $210 = $21,000.
9. **$30,000.** Her risk = 150 × ($40 − $38) = $300. If $300 is 1%, the account is $300 ÷ 1% = $30,000.
10. **60 shares.** $12,000 × 1% = $120. On a short, risk per share = $32 − $30 = $2 (price rising hurts you). $120 ÷ $2 = 60 shares.
11. **+11.1%.** $100 falls to $90. You need $10 back on a $90 base: $10 ÷ $90 = 11.1%. Losses and gains are not symmetric — this table is why.
12. **+33.3%.** $100 falls to $75. $25 ÷ $75 = 33.3%.
13. **+100%.** $100 falls to $50. You must double what is left: $50 ÷ $50 = 100%.
14. **+25%.** $100 falls to $80. $20 ÷ $80 = 25%.
15. **$7,500 left; you lost 25%; you need +33.3%.** $10,000 − $2,500 = $7,500. $2,500 ÷ $10,000 = 25% lost. Recovery: $2,500 ÷ $7,500 = 33.3%.
16. **+300%.** $100 falls to $25. $75 ÷ $25 = 300%. Deep holes are nearly unclimbable — defense is the whole game.
17. **+$500.** Value at expiration = $108 − $100 = $8. Profit = ($8 − $3.00) × 100 = $500.
18. **A $200 loss.** Value = $101 − $100 = $1. Result = ($1 − $3.00) × 100 = −$200. The stock finished above your strike and you still lost — you paid for more move than you got.
19. **$52.50.** Call breakeven = strike + premium = $50 + $2.50.
20. **Paid $360; profit $1,240.** Cost = 2 × $1.80 × 100 = $360. Each put is worth $60 − $52 = $8, so $800 × 2 = $1,600. Profit = $1,600 − $360 = $1,240.
21. **$71.** Put breakeven = strike − premium = $75 − $4.00.
22. **Lose $150.** ($2.00 − $0.50) × 100 = $150. Cutting early saved the last $50 — the full premium was at risk.
23. **Worth $0; you lose the full $220.** At the strike, intrinsic value is zero, and at expiration there is no time value left. A bought option's max loss is the premium: $2.20 × 100 = $220.
24. **2 contracts.** Each contract costs $1.25 × 100 = $125. $300 ÷ $125 = 2.4, so 2 contracts ($250). Three would cost $375 — over budget.

25. **+$280.** Value = $51 − $45 = $6. Profit = ($6 − $3.20) × 100 = $280.
26. **+$340.** Value = $90 − $84 = $6. Profit = ($6 − $2.60) × 100 = $340.
27. **$30 per contract.** The call can only fall from $0.30 to $0: $0.30 × 100 = $30. You have already lost the other $120 of the premium — this is the melt, live.
28. **Intrinsic $4.00; time value $1.30.** Intrinsic = $74 − $70 = $4.00 (what the call is worth if exercised now). Time value = $5.30 − $4.00 = $1.30 — the part that evaporates by expiration.
29. **$320.** Debit = $3.00 − $1.20 = $1.80. Max gain = (width − debit) × 100 = ($5 − $1.80) × 100 = $320.
30. **Debit $1.50; breakeven $51.50.** Debit = $2.40 − $0.90 = $1.50. Breakeven = $50 + $1.50 = $51.50.
31. **$150.** A debit spread's max loss is the debit paid: ($2.60 − $1.10) × 100 = $150.
32. **$420.** Credit = $1.40 − $0.60 = $0.80. Max loss = (width − credit) × 100 = ($5 − $0.80) × 100 = $420. You risk $420 to make $80 — know that before you sell one.
33. **$350.** Max loss = (wing width − credit) × 100 = ($5 − $1.50) × 100 = $350.
34. **$118.40.** Put credit spread breakeven = short strike − credit = $120 − $1.60 = $118.40.
35. **Worth $3; profit $100.** At $63 the spread = $63 − $60 = $3 (the $65 call is worthless). Profit = ($3 − $2.00) × 100 = $100.
36. **$80.** Profit = (credit received − cost to close) × 100 = ($1.20 − $0.40) × 100 = $80. Closing early also removes the risk — often worth more than the last $40.
37. **He sold undefined risk. A naked call's maximum loss is unlimited** — a stock can rise without any cap, and he owns the other side of that move. Spreads and covered positions exist precisely to delete this sentence.
38. **$330 total.** Shares: ($50 − $48) × 100 = $200. Premium kept: $1.30 × 100 = $130. Total $330 — and his upside was capped at $50 the moment he sold the call. That trade is fine when it is chosen on purpose.
39. **Set aside $4,000; collect $100.** Cash to secure = $40 × 100 shares = $4,000. Premium = $1.00 × 100 = $100.
40. **B — $550.** A: ($5 − $2.00) × 100 = $300 max loss. B: ($10 − $4.50) × 100 = $550 max loss. B collects more credit and still risks far more: width, not credit, sets the danger.
41. **$600.** 12 points × $50 = $600.
42. **$120.** 3 contracts × 8 points × $5 = $120.
43. **14 ticks, worth $175.** 3.50 ÷ 0.25 = 14 ticks. 14 × $12.50 = $175.
44. **$500.** A short gains as price falls: 21,000 − 20,975 = 25 points. 25 × $20 = $500.
45. **$1,500.** 15 points × $100 = $1,500.
46. **Lose $60.** 2 contracts × 15 points × $2 = $60. Small dollars, real lesson — that is exactly what micros are for.
47. **1 MES contract — and zero ES.** One MES with a 20-point stop risks 20 × $5 = $100, exactly your 1%. One ES risks 20 × $50 = $1,000, ten times your rule. Same chart, same trade — the contract choice IS the risk choice.
48. **$3,000.** 60 points × $50 = $3,000 on a single contract. A routine 1% day in the index is a four-figure swing in ES — respect the multiplier.
49. **$440.** 2 contracts × 22 points × $10 = $440.

50. **$1,400.** $1.40 × $1,000 = $1,400. Check by ticks: 140 ticks × $10 = $1,400. Two routes, same answer.
51. **+$30 per trade.** 0.40 × $300 − 0.60 × $150 = $120 − $90 = +$30. A system can lose most of its trades and still make money.
52. **−$20 per trade — it is a losing system.** 0.60 × $100 − 0.40 × $200 = $60 − $80 = −$20. Win rate is vanity; expectancy is the business.
53. **+2.5R.** $500 ÷ $200 = 2.5. Measuring in R lets you compare a stock trade, an options trade, and a futures trade on one scale.
54. **−3R. He broke the rule: never widen risk mid-trade.** $450 ÷ $150 = 3R lost against a 1R plan. The stop he moved was the whole plan — everything after was improvisation.
55. **Three breaks: the daily trade cap, the stop-after-2-losses rule, and revenge trading.** Trading "to win it back" is not a strategy; it is the loss, compounding.
56. **Average cost $46 — and the rule broken is averaging down with no stop.** (100 × $50 + 200 × $44) ÷ 300 = $13,800 ÷ 300 = $46. His position tripled while the idea failed, and nothing defines his exit.
57. **No.** The daily limit is a hard stop on the day itself. "One more, it's perfect" is how −$300 becomes −$900. The limit resets tomorrow — so do you, if you obey it today.
58. **33.3%.** You need wins × $200 = losses × $100. Break-even win rate = $100 ÷ ($200 + $100) = 33.3%. Win twice what you lose, and you only need to be right one time in three.
59. **$700 total — 3.5% of the account.** $150 + $200 + $100 + $250 = $700. $700 ÷ $20,000 = 3.5%. Each trade passed the 1% test; the book as a whole is the real position.
60. **+$5,000 expected.** 200 × $25 = $5,000, before commissions and fees. Expectancy is an average over many trades, not a promise for any single week — but a proven positive edge, repeated, is the entire game.

> **RULE**
> The math is never the hard part — doing it before the trade, and obeying it during the trade, is. Run this deck until every formula answers itself.



AA-24

ALPHA TRADING GLOSSARY

500+ market words defined in plain English. Fully searchable — press Ctrl+F or Cmd+F and type any word.

Alpha Academy reference series · Team Alpha Trading

Alpha Trading Glossary

This is the Alpha Academy dictionary — every important market word, defined in the plainest English we could write, for students who started from zero. It holds over 500 terms covering stocks, options, futures, funds, forex, crypto, risk, rules, and the everyday language traders actually use.

How to Search This Glossary

This glossary is fully searchable. Open the PDF on any device and use the find feature — on a computer press **Ctrl+F** (Windows) or **Cmd+F** (Mac), type the word you are looking for, and jump straight to it. On a phone or tablet, open the PDF and use the search or find-in-page option in your PDF app. Terms are also organized A–Z, so you can browse by letter.

> **TIP**
> When a module uses a word you do not know, stop and look it up here before you keep reading. Two minutes with the glossary saves an hour of confusion later.

A

- **Account** — The place at a brokerage firm where your money and investments are held. You deposit cash into it, and all your buying and selling happens through it.
- **Accredited Investor** — A person the government allows to buy certain riskier, private investments because they meet income or wealth requirements set by regulators. Most everyday stocks and funds are open to everyone, accredited or not.
- **Acquisition** — When one company buys another company. Example: if a giant company buys a small one, the small company's stock usually stops trading on its own.
- **Actively Managed Fund** — A pooled investment where a professional manager hand-picks what to buy and sell, trying to beat the overall market. These usually charge higher fees than funds that simply copy an index.
- **Adjusted Close** — A stock's closing price after it has been corrected for things like dividends and stock splits. It gives a truer picture of the stock's real return over time.
- **After-Hours Trading** — Buying and selling stocks outside the regular market session of 9:30 AM to 4:00 PM Eastern Time. Prices can move more wildly then because fewer people are trading.
- **Algorithm** — A set of step-by-step rules a computer follows to make decisions, such as when to buy or sell. Many large firms use algorithms to place trades automatically in a fraction of a second.
- **All-or-None Order** — An order to buy or sell that must be filled completely, in full, or not at all. If the full amount is not available, the trade simply does not happen.
- **Alpha** — A measure of how much an investment beat a comparison index, such as the S&P 500. If a fund returned 12% and its index returned 10%, the extra 2% is its alpha.
- **American Depositary Receipt (ADR)** — A certificate traded on a US exchange that represents shares of a foreign company. It lets Americans invest in overseas companies without opening a foreign account.
- **American-Style Option** — An option contract the owner can use (exercise) at any time before it expires, not just on the last day. Most options on individual US stocks work this way.

- **Analyst** — A professional who studies companies, their finances, and their industries, then publishes opinions on whether a stock looks attractive. Their views are opinions, not guarantees.
- **Annual Meeting** — A yearly gathering where a company's leaders report to shareholders and shareholders vote on things like board members. Public companies are required to hold one.
- **Annual Report** — A detailed yearly document a company publishes about its business and finances, including its audited financial statements. The official version filed with regulators is called a 10-K.
- **Annuity** — A contract, usually sold by an insurance company, that pays you a series of payments over time in exchange for money you pay in. People often use annuities for retirement income.
- **Appreciation** — An increase in the value of an investment. If you buy a stock at $40 and it rises to $55, that $15 rise is appreciation.
- **Arbitrage** — Buying something in one place and selling it at the same moment in another place for a slightly higher price, pocketing the tiny difference. Computers do most of this now because the gaps last only instants.
- **Ask** — Short for ask price: the lowest price a seller is currently willing to accept for a stock or contract. It is the price you will usually pay when you buy right away.
- **Ask Price** — The lowest price any seller is offering at this moment. Example: if the ask price is $50.05, that is the cheapest you can buy a share for right now.
- **Ask Size** — The number of shares or contracts sellers are offering at the ask price. It shows how much is available to buy at that cheapest offered price.
- **Asset** — Anything of value that you own, such as cash, a house, or shares of stock. In trading, your assets are the money and investments in your account.
- **Asset Allocation** — How you divide your money among different kinds of investments, like stocks, bonds, and cash. Example: 70% stocks and 30% bonds is one simple allocation.
- **Asset Class** — A group of similar investments, such as stocks, bonds, real estate, or commodities like gold and oil. Different classes tend to behave differently in the same economy.
- **Assignment** — When the seller of an option is chosen to fulfill the contract — for example, being required to sell 100 shares at the agreed price because the buyer used their option. Sellers cannot control when this happens.
- **At-the-Close Order** — An order that is carried out as close as possible to the market's closing price at the end of the day. Traders use it when they want the day's final price.
- **At-the-Money** — Describes an option whose strike price (the set price in the contract) is equal, or very close, to the current price of the stock. A $50 call option on a $50 stock is at-the-money.
- **At-the-Open Order** — An order that is carried out as close as possible to the market's opening price at the start of the day. If it cannot be filled at the open, it is usually cancelled.
- **Automatic Exercise** — At expiration, an option that is in-the-money (worth using) by even a small amount is usually exercised automatically by the clearing system unless you instruct otherwise. Check your broker's exact rule so you are never surprised.
- **Average Daily Volume** — The average number of shares of a stock that change hands on a typical trading day. High volume means lots of people are trading it, so buying and selling is usually easier.
- **Average True Range** — A measuring tool (often shortened to ATR) that shows how much a stock's price typically moves in a day, including gaps. Traders use it to judge how jumpy a stock is and where to place

stop losses.

- **Averaging Down** — Buying more shares of something after its price has fallen, which lowers your average cost per share. It can help if the price recovers, but it also puts more money into a losing position, so it is risky.
- **Averaging Up** — Buying more shares of something after its price has risen, which raises your average cost per share. Traders do this when a winning position keeps proving itself.

B

- **Backtesting** — Testing a trading strategy on old price data to see how it would have performed in the past. Good past results do not guarantee future profits.
- **Balance Sheet** — A financial snapshot of a company at one moment, listing what it owns (assets), what it owes (liabilities), and what is left over for owners. It answers the question: what is this company worth on paper right now?
- **Bar Chart** — A type of price chart where each bar shows a period's opening price, highest price, lowest price, and closing price. It packs the same information as a candlestick into simple lines.
- **Basis Point** — One one-hundredth of a percent, written as 0.01%. If the Federal Reserve raises rates by 25 basis points, that means a 0.25% increase.
- **Bear Call Spread** — An options strategy using two call contracts: you sell one call and buy a higher-priced call for protection, collecting money up front. It profits if the stock stays flat or falls, and both profit and loss are capped.
- **Bear Market** — A long period when the overall market has fallen 20% or more from a recent high. Bear markets are painful but a normal part of investing history.
- **Bear Put Spread** — An options strategy using two put contracts: you buy one put and sell a lower-priced put to reduce the cost. It profits if the stock falls, and both profit and loss are capped.
- **Bearish** — Believing a price will go down. A bearish trader expects falling prices, just as a bear swipes its paws downward.
- **Benchmark** — A standard used to compare performance against, usually an index like the S&P 500. If your account grew faster than your benchmark, you beat the market; slower, and you lagged it.
- **Beta** — A number that measures how much a stock tends to swing compared with the overall market. A beta of 1 moves about with the market, 2 means roughly double the swings, and 0.5 means about half.
- **Bid** — Short for bid price: the highest price a buyer is currently willing to pay for a stock or contract. It is the price you will usually get when you sell right away.
- **Bid-Ask Spread** — The gap between the bid price (what buyers offer) and the ask price (what sellers want). A wider gap means trading costs you more, because you buy at the higher price and sell at the lower one.
- **Bid Price** — The highest price any buyer is offering at this moment. Example: if the bid price is $50.00, that is the most you can sell a share for right now.
- **Bid Size** — The number of shares or contracts buyers want to purchase at the bid price. It shows how much demand is waiting at that highest offered price.
- **Block Trade** — A single very large trade, usually at least 10,000 shares, often made by a big institution rather than an individual. Block trades are often arranged privately to avoid disturbing the market price.

- **Blue-Chip Stock** — A share of a large, well-known, financially strong company with a long history, like the biggest household-name businesses. Blue chips are considered steadier than most stocks, though they can still fall.
- **Bollinger Bands** — Lines drawn on a chart above and below a moving average, usually set two standard deviations (a measure of spread) away. The bands widen when a stock moves wildly and squeeze tight when it is calm, helping traders spot unusual moves.
- **Bond** — A loan you make to a company or government: you hand over money, they pay you interest on a schedule, and they promise to return your money on a set date. Bonds are generally calmer than stocks but usually grow more slowly.
- **Bond Yield** — The return a bond pays, expressed as a percentage of its price. When a bond's price falls, its yield rises, and when its price rises, its yield falls.
- **Book Value** — What a company would be worth on paper if it sold everything it owns and paid off everything it owes. Book value per share divides that number by the number of shares.
- **Bracket Order** — An order that bundles three instructions: buy (or sell), plus a profit-taking price and a stop-loss price attached. Whichever exit price is hit first closes the trade automatically.
- **Break-Even Point** — The price at which a trade makes no profit and no loss. For a bought call option, it is the strike price plus the premium paid; for a bought put, it is the strike price minus the premium.
- **Breakout** — When a price pushes through a level where it kept stopping and turning around before, often with heavy trading. Traders watch breakouts because a strong move sometimes follows.
- **Broker** — A licensed company (or its representative) that carries out buy and sell orders for customers in exchange for fees. Your brokerage account is held with a broker.
- **Bull Call Spread** — An options strategy using two call contracts: you buy one call and sell a higher-priced call to lower the cost. It profits if the stock rises, and both profit and loss are capped.
- **Bull Market** — A long period when the overall market has risen 20% or more from a recent low. Bull markets reward patience but eventually always end.
- **Bull Put Spread** — An options strategy using two put contracts: you sell one put and buy a lower-priced put for protection, collecting money up front. It profits if the stock stays flat or rises, and both profit and loss are capped.
- **Bullish** — Believing a price will go up. A bullish trader expects rising prices, just as a bull thrusts its horns upward.
- **Business Cycle** — The repeating pattern of the economy growing for a while, then slowing or shrinking, then recovering. Different kinds of companies tend to do well at different stages of the cycle.
- **Buy and Hold** — A strategy of buying an investment and keeping it for years through ups and downs, rather than trading in and out. It is the approach most long-term investors use.
- **Buy to Close** — An order that closes a position you previously sold short, by buying back the same stock or option contract. After it fills, that short position is gone.
- **Buy to Open** — An order that starts a brand-new long position, such as buying an option contract you did not own before. It is the first half of a trade; buy to close or sell to close ends it.
- **Buyback** — When a company purchases its own shares back from the market, reducing the number of shares in public hands. Fewer shares can make each remaining share represent a bigger slice of the company.

C

- **Call Option** — A contract giving you the right, but not the duty, to buy 100 shares of a stock at a set price (the strike price) any time before a set date. You pay a premium for this right, and that premium is the most you can lose.
- **Candlestick** — A chart shape that shows a period's opening price, closing price, and the high and low in between, using a thick body and thin wicks. Green usually means the price rose during the period; red means it fell.
- **Capital** — The money and assets you have available to invest or run a business. In trading, your capital is the cash you could put at risk.
- **Capital Gain** — The profit you make when you sell an investment for more than you paid for it. Example: buy at $50, sell at $70, and your capital gain is $20 per share.
- **Capital Gains Tax** — The tax you may owe on a capital gain after you sell. Investments held over a year usually get a lower tax rate than ones held a year or less; this is educational only, not tax advice — talk to a tax professional.
- **Capital Loss** — The loss you take when you sell an investment for less than you paid for it. Example: buy at $70, sell at $50, and your capital loss is $20 per share.
- **Capitalization** — Also called market cap: the total value of a company in the stock market, found by multiplying the share price by the number of shares. A $100 stock with 1 billion shares has a capitalization of $100 billion.
- **Cash Account** — A brokerage account where you can only trade with money you have actually deposited and settled — no borrowing. It is the simplest and safest account type for beginners.
- **Cash Flow** — The movement of money into and out of a business or account over a period. A company with strong positive cash flow takes in more cash than it spends.
- **Cash Settlement** — When a contract is settled by paying the cash difference in value instead of delivering the actual item, like shares or barrels of oil. Index options such as SPX settle this way.
- **Catalyst** — A news event or announcement that pushes a stock's price to move, such as an earnings report, a new product, or a government decision. Traders watch calendars to know when catalysts are coming.
- **Chart** — A picture of how a price has moved over time. Charts are the main tool traders use to study past price behavior and plan trades.
- **Chart Pattern** — A recognizable shape that prices sometimes form on a chart, like a triangle or a double top, which traders watch for clues about what might happen next. Patterns are tendencies, not promises.
- **Circuit Breaker** — A pre-set rule that temporarily pauses trading across the market after a very sharp fall, giving everyone time to calm down and absorb news. Individual stocks have similar pause rules for extreme moves.
- **Clearing House** — A neutral middleman organization that stands between buyers and sellers to make sure every trade is completed and paid as promised. It greatly reduces the risk that one side fails to deliver.
- **Closing Bell** — The bell rung at 4:00 PM Eastern Time that signals the end of the regular trading day on the New York Stock Exchange. After it, regular trading hours are over.

- **Closing Price** — The final price at which a stock or contract traded during a regular trading session. It is the price most often quoted in news reports about the day.
- **Collar** — An options strategy where you own a stock, buy a protective put (insurance against a fall), and pay for it by selling a call that caps your upside. It limits both your possible loss and your possible gain.
- **Commission** — A fee a broker charges for executing a trade. Many US brokers now charge zero commission on stock trades but still charge a per-contract fee on options — check your broker for the current number.
- **Commodity** — A basic raw product that is the same no matter who produces it, like oil, gold, wheat, or coffee. Commodities are traded heavily with futures contracts.
- **Common Stock** — The standard ownership shares of a company that most people buy, usually carrying voting rights on company matters. If a company fails, common stockholders are paid last, after lenders and bondholders.
- **Compound Interest** — Earning interest not only on your original money but also on the interest it has already earned, so growth snowballs over time. Starting early matters more than starting big.
- **Consolidation** — A period when a price moves sideways within a fairly tight range after a bigger move, as buyers and sellers take a breather. Traders watch for the price to break out of the range.
- **Consumer Price Index (CPI)** — A government report measuring how much everyday goods and services cost compared with before — the most watched measure of inflation. CPI releases often move the whole market because they influence interest-rate decisions.
- **Contango** — When futures contracts for later months cost more than contracts for nearer months, which is the normal pattern for many commodities. It reflects costs like storage and insurance over time.
- **Contract** — A standardized legal agreement traded on an exchange, such as an option or futures contract, that spells out exactly what is being bought or sold, how much, and by when. One standard stock option contract covers 100 shares.
- **Contract Month** — The month in which a futures contract expires and must be settled or rolled into a later month. Traders name futures by their contract month, like the December crude oil contract.
- **Contrarian** — An investor who deliberately goes against the crowd — buying when most people are fearful and prices are beaten down, or pulling back when everyone is euphoric. It sounds simple but is emotionally very hard.
- **Correction** — A market or stock decline of 10% or more from a recent high, but less than the 20% that defines a bear market. Corrections are common and usually healthy, even though they feel scary.
- **Cost Basis** — The total original cost of an investment, including the purchase price and fees, used to figure out your profit or loss and your taxes. If you paid $500 for shares plus a $5 fee, your cost basis is $505.
- **Coupon** — The regular interest payment a bond makes to its owner, usually expressed as a yearly percentage of the bond's face value. A $1,000 bond with a 5% coupon pays $50 a year.
- **Covered Call** — Selling a call option on a stock you already own at least 100 shares of, collecting the premium as income. Your shares cover the obligation if the buyer exercises, but your upside is capped at the strike price.
- **Credit Spread** — An options strategy where you sell one option and buy another of the same type further from the money, receiving more premium than you pay. Your maximum loss is capped at the gap between the two strike prices minus the credit you received.

- **Currency** — The money of a country, such as US dollars, euros, or Japanese yen. Currencies are traded in pairs, betting that one will strengthen against the other.
- **Current Ratio** — A quick health check for a company: its current assets (things convertible to cash within a year) divided by its current liabilities (bills due within a year). A ratio above 1 means it can cover its near-term bills on paper.
- **Cyclical Stock** — A stock whose business rises and falls with the economy, like airlines, car makers, and hotel chains. These companies earn the most when times are good and suffer first when times turn bad.

D

- **Dark pool** — A private trading venue where big investors buy and sell away from the public exchanges, so their large orders do not move the price before they finish. Regular investors buy and sell on public exchanges instead.
- **Day order** — An order to buy or sell that cancels automatically if it has not filled by the end of that trading day. If you place a day order at 10 AM and it never executes, it is gone at the 4 PM close.
- **Day trade** — Buying and selling the same stock or option on the same day, opening and closing the position before the market closes. Buying shares at 10 AM and selling them at 2 PM is one day trade.
- **Day trader** — Someone who makes day trades often, trying to profit from small price moves within a single day. Brokers flag very frequent day traders in margin accounts, and special equity rules can apply — the classic rule required $25,000 in the account, regulators have been replacing it with intraday-margin standards, so check your own broker's current rule.
- **Dead cat bounce** — A small, brief price rise in the middle of a bigger fall, after which the price keeps dropping. It tricks some buyers into thinking the worst is over when it is not.
- **Debit** — Money you pay out to open a trade. If an option spread costs you $200 to open, that $200 is a debit.
- **Debit spread** — An options trade with two parts (one bought, one sold) that you pay money to open. For a basic debit spread, the most you can lose is the amount you paid, and the most you can gain is the spread's width minus what you paid.
- **Debt** — Money that is owed. A company with debt has borrowed money it must pay back, the same way a person owes money on a loan.
- **Deep in the money** — Describes an option that already has a lot of built-in value because the stock price is far past the strike price. Example: a call with a $50 strike price while the stock trades at $70 is deep in the money.
- **Deflation** — The opposite of inflation: prices in general slowly falling over time, so a dollar buys more later than it does today. It sounds nice but can signal a weak economy.
- **Delisting** — When a stock is removed from an exchange, usually because the company broke the exchange's rules or its price fell too low for too long. After delisting, the stock becomes much harder to buy and sell.
- **Delivery** — In futures, the moment the actual goods behind a contract (like oil or gold) are due to change hands. Most traders close or roll their futures contracts before delivery so they never deal with real barrels or bars.
- **Delta** — An options number that estimates how much an option's price will move if the stock moves $1. A delta of 0.40 means the option gains roughly $0.40 if the stock rises $1, and loses roughly $0.40 if the stock falls $1.
- **Demand** — How much of something buyers want at a given price. When demand is high and supply is limited, prices tend to rise.
- **Derivative** — A contract whose value comes from something else, like a stock, an index, or a commodity. Options and futures are derivatives — they have no value on their own, only through the thing they are based on.
- **Dip** — A small, short-term drop in a price. "Buying the dip" means buying after that small drop, hoping the price climbs back.

- **Diversification** — Spreading your money across different investments instead of putting it all in one. If you own 20 different stocks and one crashes, the other 19 soften the blow.
- **Dividend** — A cash payment a company sends its shareholders — like a small thank-you check for owning the stock. Not every company pays one, and dividends are never guaranteed.
- **Dividend yield** — A simple way to compare dividends: the yearly dividend divided by the stock price, shown as a percent. A stock at $50 paying $2 a year in dividends has a dividend yield of 4%.
- **Doji** — A single candlestick on a chart where the price opened and closed at almost the same place, leaving a very small body with wicks sticking out. It suggests buyers and sellers are evenly matched and undecided.
- **Dollar-cost averaging** — Investing the same amount of money on a regular schedule, no matter the price — for example, $100 into an index fund every payday. You automatically buy more shares when prices are low and fewer when prices are high.
- **Double bottom** — A chart pattern shaped like a W, where price fell to a low, bounced, and fell to about the same low again before rising. Some traders read it as a possible sign a downtrend is ending, but it is never a guarantee.
- **Double top** — A chart pattern shaped like an M, where price rose to a high, pulled back, and rose to about the same high again before falling. Some traders read it as a possible sign an uptrend is ending, but it is never a guarantee.
- **Dow Jones Industrial Average** — A famous index that tracks 30 very large, well-known US companies, such as Apple and Walmart. When news reports say "the Dow rose 200 points," this is the index they mean.
- **Downside** — How much you could lose if a trade goes wrong. If you buy a stock at $40 and it could realistically fall to $30, your downside is about $10 a share.
- **Downtrend** — A stretch where a price keeps making lower highs and lower lows, like a staircase going down. The general direction is down even though there are small bounces along the way.
- **Drawdown** — The drop from a high point down to a low point, usually measured in your account or in a stock's price. If your account falls from $10,000 to $8,000, you are in a 20% drawdown.
- **Due diligence** — Doing your homework before putting money into something: reading about the company, checking its finances, and understanding the risks. Never skip it just because someone online is excited.

E

- **Earnings** — A company's profit for a period of time, usually reported every three months. If a company brought in $1 billion and spent $800 million, its earnings are $200 million.
- **Earnings guidance** — A company's own forecast for how it expects to do in the coming months, given when it reports earnings. Stocks often move sharply when a company raises or lowers its guidance.
- **Earnings per share** — A company's profit divided by its number of shares, written as EPS. If a company earned $10 million and has 5 million shares, its EPS is $2 per share.
- **Earnings report** — The official update a company publishes every three months showing its sales, profit, and outlook. Stock prices often jump or drop right after it comes out.
- **Earnings season** — The few weeks, roughly in January, April, July, and October, when most big companies release their earnings reports one after another. Markets tend to be extra jumpy during these

weeks.

- **Economic calendar** — A schedule listing upcoming economic reports and events, like jobs numbers, inflation reports, and Federal Reserve meetings. Traders watch it because these events can move the whole market.
- **Economic indicator** — A statistic that shows how the economy is doing, such as the unemployment rate or the inflation rate. Investors watch these numbers to guess where the economy and markets may head next.
- **Economic moat** — A lasting advantage that protects a company from competitors, like a famous brand or being the cheapest producer. The term was popularized by investor Warren Buffett.
- **Elliott Wave Theory** — The idea, followed by some chart traders, that prices move in repeating wave-like patterns driven by crowd psychology. It is a theory for reading charts, not a proven rule, and different traders often count the waves differently.
- **E-mini futures** — Smaller, electronically traded futures contracts on indexes, like the ES, which tracks the S&P 500. Even smaller "micro" versions, like the MES, exist so beginners can trade with less money at risk per point.
- **End of day** — The close of the regular trading session, 4:00 PM Eastern Time for US stocks. Prices quoted as "closing prices" are from this moment.
- **Engulfing candle** — A candlestick pattern of two candles where the second candle's body completely covers the first one's body. A green candle engulfing a red one after a drop can signal buyers taking over, and the reverse can signal sellers taking over.
- **Entry point** — The price at which you get into a trade. If your plan says to buy a stock when it reaches $75, $75 is your entry point.
- **Equity** — Ownership. Owning stock means owning equity in a company, and the word is also used for the total value of your trading account (your cash plus your positions).
- **Equity curve** — A line graph showing the value of a trading account over time. A healthy equity curve generally climbs, while a jagged one crashing downward shows a strategy that is losing money.
- **ETF** — Short for exchange-traded fund: a basket holding many stocks or bonds that you can buy and sell as a single ticker, like a stock, all day long. One share of an S&P 500 ETF gives you a tiny piece of all 500 companies at once.
- **European-style option** — An option that can only be exercised on its expiration day, never before. Many index options work this way — SPX options are European-style and cash-settled.
- **Ex-dividend date** — The first day a stock trades without the upcoming dividend attached. To receive a dividend, you must own the stock before this date; if you buy on or after it, the seller gets the payment instead.
- **Exchange** — The marketplace where trades happen, such as the New York Stock Exchange (NYSE) or the Nasdaq. Think of it as the official store where stocks are bought and sold.
- **Exchange rate** — How much one currency is worth in terms of another. If the EUR/USD rate is 1.10, one euro is worth $1.10.
- **Exercise** — Using the right an option gives you. Exercising a call means buying 100 shares at the strike price; exercising a put means selling 100 shares at the strike price.
- **Exercise price** — Another name for an option's strike price: the set price at which the option lets you buy or sell the stock. A $150 exercise price means the trade happens at $150, no matter where the stock

actually trades.

- **Expense ratio** — The yearly fee a fund charges, shown as a percent of your money. An expense ratio of 0.10% means you pay $10 a year for every $10,000 invested in that fund.
- **Exit point** — The price at which you plan to get out of a trade, either to take a profit or to cut a loss. Deciding your exit point before you enter is a core habit of careful traders.
- **Expiration date** — The last day an options contract exists. After this date the option is gone — if it has value it is typically settled automatically, and if not, it expires worthless.
- **Extended-hours trading** — Trading that happens before the regular 9:30 AM open (pre-market) or after the 4:00 PM close (after-hours). Fewer people are trading then, so prices can swing more and orders can fill at worse prices.
- **Extrinsic value** — The part of an option's price that is above its built-in (intrinsic) value — you are paying for time left and expected movement. This is the part that melts away as expiration approaches.

F

- **Face value** — The amount a bond promises to pay back when it ends (matures), usually $1,000 per bond. It is also called par value.
- **Federal funds rate** — The target interest rate, set by the Federal Reserve, that banks charge each other for overnight loans. It influences almost every other interest rate, from credit cards to mortgages.
- **Federal Reserve (Fed)** — The central bank of the United States. Its job is to keep prices stable and employment strong, and its decisions on interest rates move the entire stock market.
- **Fibonacci retracement** — A chart tool that draws lines at set percentages (like 38.2%, 50%, and 61.8%) of a price move, marking spots where a pullback might pause. Many traders watch these levels, though they are guidelines, not guarantees.
- **Fill** — The completion of your order — the moment your buy or sell actually happens. A "fill price" is the exact price you got, which may differ slightly from the price you saw when you clicked.
- **Financial statement** — One of a company's official report cards: the income statement (sales and profit), the balance sheet (what it owns and owes), and the cash flow statement (cash in and out). Public companies must publish these every quarter.
- **Fiscal year** — A company's 12-month accounting year, which does not have to match the calendar year. A retailer might end its fiscal year in January, right after the holiday season.
- **Fixed income** — Investments that pay a set, predictable stream of interest, mainly bonds. People call them fixed income because the payments are scheduled in advance, unlike stock dividends.
- **Flash crash** — A sudden, severe market drop that reverses within minutes. In the famous 2010 flash crash, the Dow fell almost 1,000 points in minutes and then recovered most of it the same day.
- **Flat** — Holding no position at all in something. If you sell all your shares of a stock, you are flat that stock — no risk, no reward from it until you buy again.
- **Float** — The number of a company's shares actually available for the public to trade. A stock with a small float (few shares available) can jump or crash quickly because even modest buying or selling overwhelms it.
- **FOMC** — Short for Federal Open Market Committee, the group inside the Federal Reserve that votes on interest rates. It meets eight times a year, and its announcements are some of the most market-moving events on the calendar.

- **FOMO** — Short for "fear of missing out": the urge to buy something just because its price is running up and everyone is talking about it. FOMO is a feeling, not a strategy, and it leads many beginners to buy at the worst moment.
- **Forex** — Short for foreign exchange: the global market where currencies are traded in pairs, like euros against US dollars (EUR/USD). It is the largest market in the world and trades around the clock on weekdays.
- **Fractional share** — A piece of a share, less than one whole share. If a stock costs $400 and you invest $50, you can own 0.125 of a share instead of nothing.
- **Freeriding** — A cash-account violation: buying a stock with money that has not settled yet and selling it before that money arrives. Doing it can get your account restricted, so wait for funds to settle.
- **Front month** — The futures contract that expires soonest and is usually the most actively traded. When traders say "the ES front month," they mean the nearest upcoming ES contract.
- **Front-running** — When a broker or insider trades ahead of a big client order they know is coming, profiting from the price move that order will cause. It is illegal and unethical.
- **Fund** — A pool of money collected from many people and invested together, such as a mutual fund or an ETF. Instead of picking one stock, your money is spread across everything the fund holds.
- **Fundamental analysis** — Judging an investment by the health of the business itself: its sales, profit, debt, and competition, to decide what it is really worth. It is the opposite of technical analysis, which studies price charts.
- **Futures** — Contracts where two sides agree to trade something (like oil, gold, or a stock index) at a set price on a future date, and both sides must honor the deal. Futures use leverage, so gains and losses are magnified, and beginners can lose money very fast.
- **Futures contract** — One single futures agreement. Each one has a standard size and dollar value per point — for example, each point the ES futures contract moves is worth $50.
- **Futures expiration** — The last day a futures contract can trade before it ends. Traders who do not want delivery close the contract or roll it into the next month's contract before this date.

G

- **Gain** — A profit: you sold something for more than you paid for it. Buying at $30 and selling at $38 is a gain of $8 a share.
- **Gamma** — An options number that shows how fast delta itself changes when the stock moves. High gamma means your option's delta will swing quickly, which makes the position more sensitive and harder to predict near expiration.
- **Gap** — An empty space on a chart where the price opens much higher or lower than where it closed the day before, skipping the prices in between. Earnings news often causes gaps — a stock closing at $50 might open the next morning at $56.
- **Gap fill** — When a stock's price later moves back across a gap, covering the empty space on the chart. If a stock gaps up from $50 to $56 and later falls back to $50, the gap is filled.
- **Globex** — The CME Group's electronic trading platform, where most futures trades happen. It is why futures trade nearly around the clock, from Sunday evening through Friday afternoon, US Eastern Time.
- **Going long** — Buying something because you expect its price to rise. If you own shares of a stock hoping they go up, you are long that stock — the most basic position there is.

- **Going public** — When a private company sells shares to the general public for the first time so anyone can buy them on an exchange. This first sale is called an IPO, an initial public offering.
- **Going short** — Selling something first, planning to buy it back cheaper later, because you expect the price to fall. It is risky: a stock you short can keep rising, so your losses can grow quickly and, with stocks, have no fixed limit.
- **Golden cross** — A chart signal where a stock's 50-day average price crosses above its 200-day average price, after the stock has been rising. Some traders treat it as a hopeful long-term sign, but it is not a guarantee of future gains.
- **Good faith deposit** — A nickname for futures margin: the money you must park in your account to hold a futures contract. It is a deposit showing you can cover losses, not a loan and not the full price of the contract.
- **Good faith violation** — A cash-account violation that happens when you buy a stock with money from a sale that has not settled yet, then sell that new stock before the money settles. Too many of these can get your account restricted for 90 days.
- **Good 'til canceled (GTC)** — An order that stays active until it fills or you cancel it, instead of expiring at the end of the day. A GTC sell order at $60 will sit waiting even if the stock takes two weeks to get there.
- **Government bond** — A loan you make to the US government, sold as a Treasury bond, note, or bill. These are considered among the safest investments in the world and pay you interest.
- **Greeks** — A group of options numbers, named with Greek letters (delta, gamma, theta, vega, and rho), that measure different risks of an option, like how it reacts to price moves, passing time, and volatility. Traders check the Greeks the way a pilot checks dashboard gauges.
- **Gross domestic product (GDP)** — The total dollar value of everything a country produces in a period of time. When GDP grows, the economy is expanding; when it shrinks for two quarters in a row, people often call it a recession.
- **Gross margin** — The share of a company's sales left over after paying the direct cost of making its products, shown as a percent. If a company sells $100 of goods that cost $60 to make, its gross margin is 40%.
- **Gross profit** — The same idea as gross margin, but in dollars instead of a percent: sales minus the direct cost of what was sold. $100 in sales minus $60 in product costs equals $40 of gross profit.
- **Growth investing** — A strategy of buying companies expected to grow much faster than average, even if their stocks look expensive today. The bet is that future growth will be worth the high price.
- **Growth stock** — A stock of a company whose sales and profits are growing much faster than average. These companies usually pay no dividend because they reinvest everything into growing, and their prices can swing hard.

H

- **Halt** — A temporary pause in trading of a stock, set by the exchange. Halts usually happen when big news is coming out or a price is moving too wildly, and trading restarts a few minutes later.
- **Hammer Candle** — A single candle (one bar on a chart) with a long lower tail and a small body near the top. After a fall, it can be an early sign that buyers are stepping in and price may turn up.
- **Hard Stop** — A real stop order you place with your broker that sells automatically if price hits your level. It is "hard" because the broker's computer does it for you, even if you are not watching.
- **Hard to Borrow** — A label for a stock that is difficult or expensive to borrow for short selling (betting it will fall). If a stock is hard to borrow, your broker may charge extra fees or block the short sale entirely.
- **Head and Shoulders** — A chart pattern shaped like a head between two shoulders, made of three peaks where the middle peak is the highest. Traders watch it as a possible sign that an uptrend is tiring out and may reverse down.
- **Hedge** — A second position you take to protect your main position, like insurance. Example: if you own a stock and fear a drop, you might buy a put option so a fall hurts less.
- **Hedge Fund** — A private investment fund for wealthier investors that can use advanced strategies like short selling and leverage. Hedge funds have looser rules than the mutual funds everyday investors buy.
- **High Beta** — Describes a stock that moves more than the overall market, both up and down. A stock with a beta of 2 tends to move about twice as much as the S&P 500, so it is riskier and jumpier.
- **High of Day** — The highest price a stock or contract has traded at so far today, often shortened to HOD. Traders watch it because price pushing above it can signal strength.
- **High-Yield Bond** — A bond from a company with a weaker credit rating, nicknamed a junk bond. It pays higher interest because there is a higher chance the company fails to pay you back.
- **Higher High** — A price peak that is higher than the peak before it. A series of higher highs (with higher lows) is the classic picture of an uptrend.
- **Higher Low** — A price dip that stops at a higher level than the dip before it. It suggests buyers are stepping in earlier each time, which is a sign of an uptrend.
- **Higher Time Frame** — A chart that shows a longer stretch of time per candle, like the daily or weekly chart instead of the 1-minute chart. Big-picture charts show the main trend that smaller charts must fit inside.
- **Historical Volatility** — A measure of how much a stock's price actually moved in the past, based on real price history. It looks backward, unlike implied volatility, which looks forward.
- **Hold** — Keeping a position you already own instead of selling it. If you bought shares and simply keep them while you wait, you are holding.
- **Holding Period** — How long you own something before you sell it. For taxes, holding a stock more than one year usually gets a lower tax rate on profits than selling sooner.
- **Horizontal Level** — A price drawn as a flat line across a chart where price has repeatedly stopped, bounced, or reversed before. Traders treat these levels as likely turning points in the future.
- **Hot Money** — Money that moves in and out of an investment very quickly, chasing fast gains. Hot money rushes in when something is exciting and rushes out just as fast, making prices jumpy.
- **Hourly Chart** — A price chart where each candle covers one hour of trading. Traders use it to see the trend inside the day without the noise of very small time frames.

I

- **Implied Move** — The amount the options market expects a stock to move up or down by a certain date, shown as a dollar amount or a percentage. Traders check it before earnings to see how big a swing is already "priced in."
- **Implied Volatility** — Often shortened to IV, this is how much movement the market expects from a stock in the future, built into option prices. High IV makes options expensive; low IV makes them cheap.
- **In the Money** — Describes an option that already has real value if used right now. Example: a call option with a $50 strike is in the money when the stock trades at $55, because you could buy at $50 and the stock is worth $55.
- **Income Statement** — A company report showing how much money it made and spent over a period, ending with its profit or loss. It answers the basic question: did the business actually make money?
- **Index** — A number that tracks the combined price movement of a group of stocks, like the S&P 500 (500 large companies). You cannot buy an index itself; you trade funds, futures, or options based on it.
- **Index Fund** — A fund that simply copies an index, holding the same stocks in the same proportions. Because no manager is picking stocks, fees are usually very low.
- **Index Futures** — Futures contracts based on a stock index, such as the S&P 500 futures (ES). Traders use them to bet on, or protect against, the whole market moving up or down.
- **Index Option** — An option based on an index instead of a single stock, like SPX options. Index options are settled in cash (no shares change hands) and SPX options can only be exercised at expiration.
- **Indicator** — A tool drawn on or under a chart that does math on price or volume to help you judge the trend or momentum. Examples include moving averages, MACD, and RSI; indicators suggest, they never guarantee.
- **Inflation** — The general rise in prices over time, which means each dollar buys a little less than before. If inflation is 3%, something that cost $100 last year costs about $103 now.
- **Initial Margin** — The amount of money you must put up to open a leveraged position. For stocks it is usually 50% of the purchase; for futures it is a smaller good-faith deposit set by the exchange.
- **Initial Public Offering (IPO)** — The first time a private company sells shares to the public and starts trading on an exchange. After the IPO, anyone with a brokerage account can buy the stock.
- **Inside Bar** — A candle whose entire high-to-low range fits inside the candle before it, also called a "1" in The Strat system. It shows price pausing and coiling, and traders watch for a break out of it.
- **Insider Trading** — Buying or selling a stock using secret, important information the public does not have yet. It is illegal, and company executives trading on inside knowledge can face heavy fines and prison.
- **Institutional Investor** — A big organization that invests huge amounts of money, like a pension fund, bank, or hedge fund. Their large trades can move prices, so small traders watch what they do.
- **Interest Rate** — The price of borrowing money, charged as a percentage per year. When the Federal Reserve raises or lowers rates, it affects loans, savings accounts, and usually stock prices too.
- **Intraday** — Anything that happens within a single trading day. An intraday trader (day trader) opens and closes all positions before the market closes and holds nothing overnight.
- **Intrinsic Value** — The built-in, real value of an option if it were used right now. A call with a $50 strike has $5 of intrinsic value when the stock is $55; anything above that in the option's price is time value.

- **Inverse ETF** — A fund designed to go up when its index goes down, and down when the index goes up. It lets you profit from a falling market without short selling, but it is built for short-term trades, not long holds.
- **Investing** — Buying something and holding it for months or years, expecting it to grow in value over time. It is the slower, longer-term cousin of trading.
- **Investment Grade** — A quality rating for bonds meaning the borrower is considered fairly safe and likely to repay. Bonds below investment grade are called high-yield or junk bonds.
- **Investor** — Anyone who puts money into something hoping it grows. You become an investor the moment you buy your first share, fund, or bond.
- **Iron Butterfly** — An options strategy using four options that profits most if the stock lands exactly on one middle price at expiration. Risk and reward are both capped, and it is an advanced strategy.
- **Iron Condor** — An options strategy that sells both a call spread above the price and a put spread below it, collecting premium. You profit if the stock stays inside a range, and your maximum loss is capped and known up front.
- **IV Crush** — The sharp drop in implied volatility right after a big expected event, like an earnings report, passes. Option prices can fall hard from IV crush even when the stock moves the way you predicted.
- **IV Rank** — A number from 0 to 100 showing where today's implied volatility sits compared with its own range over the past year. Near 100 means options are unusually expensive versus their own history; near 0 means unusually cheap.

J

- **January Effect** — The idea that stock prices, especially smaller stocks, tend to rise more in January than in other months. It is a historical pattern some traders watch, not a promise it will happen.
- **Jobs Report** — A monthly government report on how many jobs were added or lost and the unemployment rate, usually released on the first Friday of the month. It often moves the whole market within seconds because it hints at the economy's health.
- **Joint Account** — A brokerage account owned by two people, such as spouses, where both can deposit money and place trades. Either owner can usually act on the account without the other's permission.
- **Journal** — A written record of every trade you take, including why you entered, where you exited, and what you learned. Reviewing your journal is how traders find and fix their repeated mistakes.
- **Junk Bond** — A nickname for a high-yield bond from a company with a weak credit rating. It pays high interest to make up for the real risk the company might not pay you back.

K

- **Keltner Channels** — An indicator that draws two bands above and below a moving average, spaced by how much price typically moves. Price bouncing between or breaking out of the bands helps traders judge trends and stretched moves.
- **Key Level** — An important price where traders expect a reaction, such as a past high, a past low, or a round number like $500. Plans are often built around key levels: buy near support, sell or protect near resistance.
- **Know Your Customer (KYC)** — The legal rule that brokers must verify who you are before opening your account. That is why signing up asks for your ID, address, and Social Security number.

L

- **Large Cap** — A big company, usually worth $10 billion or more, like Apple or Walmart. "Cap" is short for market capitalization, the total value of all its shares.
- **Last Price** — The most recent price at which a stock or contract actually traded. It is the number most apps show in big digits next to the ticker.
- **Last Trading Day** — The final day a futures or options contract can be traded before it expires. After this day the contract is settled, so traders must close or roll their position before it.
- **Level 2** — A data feed showing the stack of waiting buy and sell orders at many prices, not just the best one. It helps traders see where large orders are sitting, though reading it well takes practice.
- **Leverage** — Using borrowed power so a small amount of your money controls a much bigger position. Leverage multiplies gains and losses equally — a 10-to-1 leveraged position loses 10% of your money on just a 1% move against you.
- **Leveraged ETF** — A fund that uses borrowing and derivatives to multiply an index's daily move, aiming for 2 or 3 times the return. Because it resets daily, holding it for weeks can produce surprising results, and it is risky for beginners.
- **Limit Move** — The maximum amount a futures price is allowed to move in one session before the exchange pauses or restricts trading. It is a safety brake against panic moves.
- **Limit Order** — An order to buy or sell only at your chosen price or better. A buy limit at $50 means you pay $50 or less — but if price never reaches $50, your order simply never fills.
- **Limit Price** — The exact price you set on a limit order; the worst price you are willing to accept. For a buy it is your ceiling, and for a sell it is your floor.
- **Liquidation** — Selling a position to turn it back into cash, whether by your choice or by force. If your margin account falls too far, your broker can liquidate (force-sell) your positions without asking.
- **Liquidity** — How easily something can be bought or sold without moving its price much. A heavily traded stock like Apple is very liquid; a rarely traded stock can be hard to exit at a fair price.
- **Liquidity Provider** — A firm that constantly posts prices to buy and sell, making it easy for everyone else to trade. Their activity keeps markets smooth and bid-ask spreads small.
- **Liquidity Risk** — The danger that you cannot sell something quickly at a fair price when you want out. It shows up in thinly traded stocks and options, where you may have to accept a much worse price.
- **Long** — Owning something because you expect its price to rise. If you buy 10 shares of a stock, you are "long 10 shares," and you profit when the price goes up.
- **Long-Term Capital Gain** — Profit from selling something you held for more than one year. In the US it is usually taxed at a lower rate than short-term profits — tax rules change, so check with a tax professional.
- **Long-Term Investing** — Buying and holding for years through ups and downs instead of reacting to daily moves. Retirement accounts are the most common example.
- **Loss** — What happens when you sell something for less than you paid, or a position moves against you. Small, planned losses are a normal cost of trading; the goal is keeping them small.
- **Loss Limit** — A personal rule for the most you will lose before stopping, such as "I stop trading after losing $100 in a day." It protects your account on days when nothing is working.

- **Lot Size** — The standard amount of something in one trade. One stock options contract covers 100 shares, and one futures contract covers a set amount defined by the exchange.
- **Low of Day** — The lowest price a stock or contract has traded at so far today, often shortened to LOD. Traders watch it because dropping below it can signal weakness.
- **Lower High** — A price peak that is lower than the peak before it. Combined with lower lows, it is the classic picture of a downtrend.
- **Lower Low** — A price dip that falls lower than the dip before it. It shows sellers are pushing price to new lows, a sign of a downtrend.

M

- **MACD** — An indicator (Moving Average Convergence Divergence) that compares two moving averages to show momentum — whether a trend is speeding up or slowing down. Traders watch its lines cross as a possible signal that momentum is changing.
- **Maintenance Margin** — The minimum amount of money that must stay in your margin account while a position is open. If your account drops below it, you get a margin call.
- **Margin** — Borrowed money or buying power from your broker that lets you control more than your cash alone could. For futures, margin means something different: a good-faith deposit you post to hold a contract, not a loan.
- **Margin Account** — A brokerage account that lets you borrow money from the broker, use unsettled funds, and sell short. It offers flexibility but charges interest on loans and carries extra rules and risks.
- **Margin Call** — A demand from your broker to add money or close positions because your account fell below the required minimum. If you do not act, the broker can sell your positions for you.
- **Mark Price** — The fair, calculated value used for a futures contract at any moment, based on the underlying market. Brokers use it to figure your profit, loss, and margin fairly.
- **Mark to Market** — The daily process of settling futures accounts: each day, gains are credited and losses are debited in cash based on the closing price. Your futures profit and loss becomes real money in the account every day.
- **Market Breadth** — A measure of how many stocks are rising versus falling across the whole market. Strong breadth means most stocks are joining a move; weak breadth means only a few are carrying it.
- **Market Cap** — The total value of a company in the stock market: share price multiplied by the number of shares that exist. A $50 stock with 100 million shares has a market cap of $5 billion.
- **Market Crash** — A sudden, steep fall in stock prices across the whole market, like the drops in 2008 and March 2020. Crashes are frightening but have historically been followed by recoveries over time.
- **Market Depth** — The full picture of waiting buy and sell orders at many price levels, shown in Level 2 data. More depth means bigger orders can trade without moving the price much.
- **Market Hours** — The times a market is open. US stock exchanges trade 9:30 AM to 4:00 PM Eastern on weekdays, while CME futures trade almost around the clock from Sunday evening to Friday.
- **Market Maker** — A firm whose job is to always offer a price to buy and a price to sell, so trading never stalls. They earn money from the small gap between those two prices, called the spread.
- **Market Order** — An order to buy or sell right now at whatever the current price is. It almost always fills immediately, but in a fast or thin market the price you get can be worse than expected.

- **Market Sentiment** — The overall mood of traders — fearful, greedy, or somewhere between. Sentiment helps explain why prices sometimes move more than the news alone would suggest.
- **Market Timing** — Trying to buy before rises and sell before falls based on predictions. It sounds simple but is famously hard, because you must be right twice: getting out and getting back in.
- **Max Pain** — The price where, at expiration, the largest number of option contracts would expire worthless and option buyers as a group lose the most. Some traders watch it as a magnet price, though it is a theory, not a rule.
- **Maximum Loss** — The most money a trade can possibly lose, if it can be known in advance. A bought option's maximum loss is the premium you paid; defined-risk spreads also have a fixed maximum loss.
- **Mean Reversion** — The idea that prices that stretch far from their average tend to drift back toward it, like a rubber band snapping back. Traders who use it buy sharp dips and sell sharp spikes.
- **Micro Futures** — Smaller versions of popular futures contracts, one-tenth the size of the standard "E-mini" contracts. The Micro E-mini S&P 500 (MES) is worth $5 per point instead of $50, so beginners risk far less per trade.
- **Microcap Stock** — A very small company, usually worth under $300 million. Microcaps can swing wildly and are often thinly traded, making them risky for beginners.
- **Mid Cap** — A medium-sized company, usually worth between about $2 billion and $10 billion. Mid caps sit between small caps and large caps in both growth potential and stability.
- **Mid Price** — The halfway point between the bid (what buyers offer) and the ask (what sellers want). Traders often try to get filled near the mid price instead of paying the full ask.
- **Mini (E-mini) Futures** — The standard-sized electronic futures contracts on stock indexes, like the E-mini S&P 500 (ES), worth $50 per point. They are the most heavily traded futures in the world, and the micro contracts are their one-tenth-size versions.
- **Momentum** — The tendency of prices that are moving strongly in one direction to keep moving that way for a while. Momentum traders buy what is rising and sell what is falling, following the move rather than fighting it.
- **Money Market Fund** — A very conservative fund that holds short-term, low-risk debt and aims to keep its value at $1 per share. Many brokers park your uninvested cash in one automatically.
- **Moneyness** — The relationship between a stock's price and an option's strike price. It describes whether an option is in the money (has real value now), at the money (strike equals the stock price), or out of the money (no real value yet).
- **Moving Average** — A line on a chart showing the average price over the last set number of candles, like the 20-day or 200-day average. It smooths out the bumps so the main trend is easier to see.
- **Multi-Leg Order** — One order that buys and sells two or more options (or futures) together as a package, like a spread. It makes sure all parts fill together at one combined price.
- **Multiplier** — The number that turns an option's quoted price into its real cost. Stock options have a multiplier of 100, so a $2.50 premium really costs $2.50 × 100 = $250 per contract.
- **Mutual Fund** — A pooled fund where many investors' money is combined and managed together, priced once per day after the market closes. Unlike ETFs, you cannot trade a mutual fund during the day.

N

- **Naked Option** — An option sold by someone who does not own the shares or the offsetting position behind it. It can lose far more than the price it was sold for, so brokers only allow it for experienced traders with large accounts.
- **NASDAQ** — A major American stock exchange where shares are bought and sold electronically. Many famous technology companies, like Apple and Microsoft, trade here.
- **Nasdaq-100** — An index (a numbered scorecard) of 100 of the largest non-bank companies listed on the NASDAQ, mostly technology names. It is the index the popular QQQ fund follows.
- **Nasdaq Composite** — An index that tracks nearly every stock listed on the NASDAQ exchange — more than 3,000 companies. When news reports say "the Nasdaq rose today," they usually mean this number.
- **Net Asset Value (NAV)** — The value of everything a fund owns, minus what it owes, divided by its shares. It is the per-share worth of a fund, figured out at the end of each trading day for mutual funds.
- **Net Change** — How much a price moved compared to the previous day's closing price. If a stock closed at $50 yesterday and $52 today, its net change is +$2.
- **Net Income** — A company's profit after every cost, bill, and tax is paid. If a shop takes in $10,000 and spends $8,000 on everything, its net income is $2,000.
- **Net Liquidation Value (Net Liq)** — The cash value of your whole account if you closed every position right now at current prices. Broker apps show this number as the real-time worth of your account.
- **New Highs and New Lows** — A daily count of stocks reaching their highest or lowest price of the past year (usually 52 weeks). Lots of new highs suggests a strong market; lots of new lows suggests a weak one.
- **New York Stock Exchange (NYSE)** — The largest stock exchange in the United States, based on Wall Street in New York City. Companies like Walmart and Coca-Cola trade here.
- **News Catalyst** — A news event that pushes a stock's price, such as an earnings report, a new product, or a government announcement. Traders watch for catalysts because quiet stocks often start moving when big news hits.
- **Nonfarm Payrolls (NFP)** — A government report, usually released on the first Friday of each month, showing how many jobs the US economy added or lost. It often causes big, fast moves in stocks, futures, and currencies.
- **Notional Value** — The total dollar value a futures contract controls, found by multiplying the contract size by the price. One oil futures contract controls 1,000 barrels, so at $70 a barrel its notional value is $70,000 — far more than the deposit you put down.

O

- **Odd Lot** — An order for fewer than 100 shares of a stock. Buying 25 shares is an odd lot; it still works fine, it is just smaller than the standard block.
- **Offer (Ask Price)** — The lowest price a seller is currently willing to accept for a stock or contract. When you buy at market, this is roughly the price you pay.
- **OHLC (Open, High, Low, Close)** — The four key prices of any time period: where it started, the highest trade, the lowest trade, and where it ended. Every candle on a chart is drawn from these four numbers.

- **Open** — The price of the first trade of the day (or of any candle's time period). The word is also a verb — to "open" a position means to start a new trade.
- **Open Interest** — The total number of option or futures contracts that exist right now and have not been closed, exercised, or expired. High open interest means lots of traders are involved in that contract.
- **Open Order** — An order you have placed that has not filled yet and has not been canceled. A limit order waiting for your price is an open order.
- **Open Position** — Any trade you are still holding. If you own 50 shares of a stock right now, that is an open position until you sell them.
- **Opening Bell** — The bell rung at 9:30 a.m. Eastern Time that starts regular US stock market hours. Prices often move quickly in the first minutes after it rings.
- **Opening Range** — The high and low prices from the first few minutes of the trading day, often the first 5, 15, or 30 minutes. Many day traders watch this range as a map for the rest of the day.
- **Option** — A contract that gives you the right, but not the obligation, to buy or sell a stock at a set price (the strike price) before a set date (the expiration). You pay a fee, called the premium, for that right.
- **Option Chain** — The big price list for a stock's options, showing every strike price and expiration date with the current price of each call and put. Think of it as the menu you order options from.
- **Option Contract** — One single option. A standard stock option contract controls 100 shares, so a premium quoted at $2.50 costs you $250 for one contract.
- **Option Seller (Writer)** — The person on the other side of an option trade, who collects the premium and takes on the obligation if the buyer uses the option. Selling options can bring in income but can carry large risk.
- **Options Approval** — Permission your broker gives you to trade options, granted in levels based on your experience and account. Beginners usually start with basic levels, like buying calls and puts, before spreads or selling options are allowed.
- **Options Expiration** — The date an option contract ends. If the option has no value by the end of that day, it expires worthless and the buyer loses the premium paid.
- **Order** — An instruction you give your broker to buy or sell. A market order fills right away at the current price, while a limit order only fills at your chosen price or better.
- **Order Book** — The live list of buy and sell orders waiting at different prices for a stock or contract. Traders look at it to see how many buyers and sellers are lined up.
- **Order Flow** — The stream of buy and sell orders coming into the market right now. Watching order flow helps some traders judge whether buyers or sellers are more aggressive at the moment.
- **Oscillator** — A technical indicator that swings back and forth between set bounds, like 0 and 100, to suggest a stock may have risen or fallen too far, too fast. The RSI is the most famous example.
- **Out-of-the-Money (OTM)** — Describes an option with a strike price that is currently on the losing side. A call is out-of-the-money when its strike is above the stock price; a put is out-of-the-money when its strike is below it — such options are cheaper but need a bigger move to pay off.
- **Outstanding Shares** — The total number of a company's shares that exist and are held by all investors. Multiply this by the share price and you get the company's market cap (total value).
- **Over-the-Counter (OTC)** — Trading that happens away from the big exchanges like the NYSE and NASDAQ, usually in tiny, little-known companies. OTC stocks follow looser rules and are much riskier

than exchange-listed stocks.

- **Overbought** — A word traders use when a price has risen a lot in a short time and may be due for a pause or pullback. An RSI reading above 70 is a common overbought signal, but it is a hint, not a guarantee.
- **Overnight Session** — Trading that happens outside regular daytime hours. Futures trade nearly around the clock on weekdays, and stocks can trade in pre-market and after-hours sessions with less activity.
- **Oversold** — The opposite of overbought: a price has fallen a lot in a short time and may be due for a bounce. An RSI reading below 30 is a common oversold signal, but prices can keep falling anyway.
- **Overvalued** — When a stock's price looks higher than the underlying business seems to be worth, based on its earnings, sales, or growth. An overvalued stock can be a great company and still be a risky buy at that price.

P

- **P/E Ratio (Price-to-Earnings)** — A popular way to judge whether a stock is cheap or expensive: share price divided by the company's yearly profit per share. A $100 stock earning $5 per share has a P/E of 20, meaning buyers pay $20 for each $1 of yearly profit.
- **Panic Selling** — When frightened investors all rush to sell at once, pushing prices down fast. It often happens after bad news and can make prices drop far below what a company is really worth.
- **Paper Trading** — Practicing with a pretend-money account that uses real market prices. It lets you learn how orders, options, and futures work without risking a single real dollar.
- **Par Value** — The face value printed on a bond or stock certificate — the amount a bond promises to pay back at the end. US bonds are commonly issued with a par value of $1,000.
- **Partial Fill** — When only part of your order gets completed because there were not enough buyers or sellers at your price. If you ordered 200 shares and only 120 traded, you got a partial fill.
- **Pattern (Chart Pattern)** — A shape that price repeatedly draws on a chart, such as a triangle or a flag, that traders watch for clues about what might happen next. Patterns can help plan trades, but none of them work every time.
- **Pattern Day Trader (PDT)** — A label for someone who makes four or more day trades within five business days in a margin account. Under the classic US rule, pattern day traders must keep at least $25,000 in account equity — but US regulators have been replacing this rule with new intraday-margin standards and brokers are transitioning, so check your own broker's current rule before relying on either version.
- **Penny Stock** — A stock trading under $5 per share, usually from a very small company. Penny stocks can swing wildly, are hard to sell quickly, and are a favorite target of scams, so beginners should be extremely careful.
- **Pip** — The smallest standard price step in currency (forex) trading, usually the fourth decimal place. If EUR/USD moves from 1.0850 to 1.0851, it moved one pip.
- **Pivot Point** — A price level worked out from the previous day's high, low, and close that traders use as a possible turning point. Prices often stall or reverse near pivot points, so many traders mark them on their charts.
- **Point (Futures)** — A full 1.00 move in a futures price. Its cash value depends on the contract: on the E-mini S&P 500 (ES) one point is worth $50, while on the Micro version (MES) one point is worth $5.

- **Portfolio** — Everything you own across your investment accounts — all your stocks, funds, options, and cash combined. Looking at your portfolio means looking at the whole picture, not just one trade.
- **Position** — One holding or trade you currently have open, like 100 shares of a stock or two option contracts. Traders say "I have a position in Apple" to mean they are in that trade right now.
- **Position Sizing** — Deciding how much money to put into each trade before you enter it. Good position sizing makes sure one bad trade can never wipe out your account.
- **Pre-Market Trading** — Trading that happens before the regular 9:30 a.m. Eastern open, available through most brokers. Prices can jump on overnight news, but fewer traders are active, so moves can be jumpy.
- **Premium** — The price you pay to buy an option, quoted per share. Since one contract covers 100 shares, a $2.50 premium costs $250 per contract — and for a buyer, that $250 is the most you can lose on the trade.
- **Price Action** — Reading the movement of price itself — the candles, trends, and support and resistance levels on a chart — instead of relying on indicators. It is the skill of watching what price is actually doing, bar by bar.
- **Price Improvement** — When your broker fills your order at a better price than the one publicly quoted. Even a few cents of price improvement per share adds up over many trades.
- **Price Target** — The future price an analyst predicts a stock will reach, usually within about a year. It is an educated opinion, not a promise — analysts are often wrong.
- **Primary Market** — Where brand-new securities are sold for the very first time, like a company selling shares to the public in an IPO. Money paid here goes to the company itself, not to another investor.
- **Profit and Loss (P&L)** — The total amount of money you have made or lost. A gain or loss is "realized" once you sell and lock it in; before that it is "unrealized" — just on paper, and it can still change.
- **Profit Margin** — The share of a company's sales it keeps as profit after costs. If a company sells $100 of goods and keeps $10 as profit, its profit margin is 10%.
- **Profit Target** — A price or profit level you choose in advance where you plan to sell and take your winnings. Setting a profit target before entering stops greed from making your decisions mid-trade.
- **Protective Put** — A put option bought by someone who owns the stock, as insurance. If the stock falls hard, the put gains value and cushions the loss, like a seatbelt for your shares.
- **Public Company** — A company whose shares are sold to the general public on a stock exchange, so anyone can buy a piece of it. Apple and Walmart are public companies; your local family restaurant is not.
- **Pullback** — A temporary dip in price during an overall uptrend, like a short rest during a climb. Traders often wait for a pullback to buy at a slightly better price.
- **Pump and Dump** — A scam where promoters hype up a cheap stock so the price rises ("pump"), then sell their own shares at the top and leave everyone else holding the crash ("dump"). It is illegal and mainly targets beginners — avoid any stock being pushed by strangers online.
- **Put Option** — A contract giving you the right to sell 100 shares at the strike price before expiration. Puts generally gain value when the stock falls; for example, a $50 put bought for $2.00 breaks even at $48 at expiration.
- **Put/Call Ratio** — The number of put options traded compared to calls in a market or stock. A high ratio means traders are buying more downside protection (fear); a low ratio suggests more optimism.

Q

- **QQQ** — The ticker symbol of a hugely popular fund (ETF) that tracks the Nasdaq-100 index. Buying one share of QQQ is like buying a small slice of 100 big Nasdaq companies at once.
- **Quadruple Witching** — A day, four times a year (the third Friday of March, June, September, and December), when several kinds of options and futures contracts expire at the same time. These days often bring extra trading volume and sharper price swings.
- **Quantitative Easing (QE)** — When the US central bank (the Federal Reserve) buys large amounts of bonds to pump money into the financial system and push interest rates down. It is meant to encourage borrowing and spending, and markets often rise while it runs.
- **Quarterly Earnings Report** — A report card every public company must publish about every three months, showing its sales and profits. Stock prices can jump or drop sharply in the hours after one is released.
- **Quick Ratio** — A simple check of whether a company could pay its near-term bills using only its most easily-sold assets, like cash. A ratio above 1 means it has more quick assets than short-term debts.
- **Quote** — The current prices being offered for a stock or contract: the bid (what buyers will pay) and the ask (what sellers want). When you "get a quote," you are seeing those live numbers.

R

- **Rally** — A strong rise in a price over hours, days, or weeks. After weeks of falling, a market that climbs steadily for several days is said to be rallying.
- **Range** — The distance between a price's high and its low over a period, or the zone a price keeps bouncing inside, between support below and resistance above. A stock trapped between $90 and $100 is "trading in a range."
- **Rate Hike and Rate Cut** — When the Federal Reserve raises (hike) or lowers (cut) its main target interest rate. Hikes make borrowing more expensive and often pressure stocks; cuts do the opposite.
- **Real-Time Quote** — A price that is live right now, with no delay. Some free websites and apps show prices delayed by 15 minutes or more, which is too slow for active trading.
- **Realized Gain or Loss** — A profit or loss that is final because you have closed the trade. If you buy at $40 and sell at $46, your $6-per-share gain is realized — it is yours to keep.
- **Rebalancing** — Adjusting your portfolio back to your planned mix after prices move. If your plan was 60% stocks and 40% bonds and stocks grew to 70%, rebalancing means selling some stocks and buying bonds to restore the mix.
- **Recession** — A period when the overall economy shrinks and business slows down, often described as two quarters (six months) in a row of falling economic output. Jobs get harder to find, company profits fall, and stock markets usually struggle.
- **Regular Trading Hours (RTH)** — The main US stock market session: 9:30 a.m. to 4:00 p.m. Eastern Time, Monday through Friday, excluding holidays. This is when trading is busiest and prices are most reliable.
- **Regulation T (Reg T)** — The US rule that lets a broker lend you up to 50% of the purchase price when you first buy stock in a margin account. Buy $10,000 of stock and you must put up at least $5,000 of your own money at the start.

- **Relative Strength Index (RSI)** — A popular indicator that scores recent price momentum from 0 to 100. Readings above 70 suggest a stock may be overbought, and readings below 30 suggest it may be oversold — signals to pay attention, never guarantees.
- **Resistance** — A price level where a rising stock keeps getting pushed back down, like a ceiling. If a stock fails to get past $100 three times, traders call $100 resistance.
- **Retracement** — A partial move back against the main trend. If a stock climbs from $100 to $120 and then slips to $110, it has retraced half of the move — traders watch these pullbacks for chances to join the trend.
- **Return** — The gain or loss on your money, usually shown as a percentage. Making $100 on a $1,000 investment is a 10% return.
- **Revenue** — The total money a company takes in from selling its products or services, before subtracting any costs. It is also called sales or the "top line" because it sits at the top of the financial report.
- **Reversal** — When a price trend changes direction — an uptrend ends and prices start falling, or a downtrend ends and prices start rising. Catching the exact moment of a reversal is one of the hardest things in trading.
- **Reward-to-Risk Ratio** — A comparison of how much you could make on a trade versus how much you could lose, worked out before you enter. Risking $100 to aim for $300 is a 3-to-1 reward-to-risk ratio.
- **Risk** — The chance that you will lose money on a trade or investment. Every trade has risk; the goal of learning is not to remove it, but to control how much of it you take.
- **Risk Management** — The set of habits and rules that protect your account: sizing positions small, using stop losses, and never betting too much on one idea. It is the main skill that separates long-lasting traders from gamblers.
- **Risk Tolerance** — How much loss and how big a price swing you can handle, both in your wallet and in your stomach. A person who cannot sleep when their account drops 10% has a low risk tolerance and should trade smaller.
- **Risk-On / Risk-Off** — A quick way to describe the market's mood. "Risk-on" means investors feel brave and buy stocks and other growth assets; "risk-off" means they feel cautious and move toward safer assets like cash and bonds.
- **Roll (Rolling a Position)** — Closing a contract that is about to expire and opening the same kind of position in a later expiration, to keep the trade going. Futures traders roll to the next month's contract, and option traders roll to a later date (and sometimes a different strike).
- **Rotation (Sector Rotation)** — When big investors move money out of one group of stocks and into another — for example, out of technology and into energy. Watching rotation shows where money is flowing across the market.
- **Round Lot** — The standard block of 100 shares of a stock. Prices are often quoted and big orders filled in round lots, though today anyone can buy even a single share.
- **Round Trip** — One complete trade: opening a position and closing it again. Buying a stock on Monday and selling it on Tuesday is one round trip.

S

- **S&P 500** — A list of 500 of the biggest companies in the United States, tracked as one number that goes up and down. When people say "the market went up today," they often mean this list went up.
- **Scalping** — A very fast style of trading where you buy and sell within minutes, or even seconds, trying to grab tiny profits many times a day. It is fast, stressful, and hard for beginners.
- **Seasonality** — The idea that prices sometimes follow patterns tied to the time of year, like certain months often being stronger than others. It is a tendency, not a guarantee.
- **SEC (Securities and Exchange Commission)** — The United States government agency that polices the markets. It makes the rules public companies and brokers must follow and punishes fraud.
- **Secondary Market** — The market where regular people buy and sell stocks to each other after the shares first exist. Almost everything you will ever trade happens here, on exchanges like the New York Stock Exchange and Nasdaq.
- **Secondary Offering** — When a company sells more new shares after it is already public. It raises cash for the company but can push the price down because there are now more shares sharing the same company.
- **Sector** — A group of companies that do similar business, like technology, healthcare, energy, or banks. Traders watch sectors because stocks in the same sector often move together.
- **Sector Rotation** — When big investors move money from one sector into another as the economy changes. For example, money might leave technology stocks and flow into energy stocks.
- **Securities** — A general word for tradable financial assets: stocks, bonds, options, and similar products. If you can buy and sell it on a market, it is probably a security.
- **Sell-Off** — A sudden wave of selling that pushes prices down quickly. It often happens when bad news scares many holders into selling at the same time.
- **Sell to Close** — An order that sells an option you already own, ending that position. If you bought a call for $200 and sell to close at $300, you keep the $100 difference minus fees.
- **Sell to Open** — An order that creates a brand-new short option position by selling an option you do not own yet. You collect money (the premium) up front but take on an obligation, which can be risky.
- **Session (Trading Session)** — One full day of trading. For US stocks, the regular session runs 9:30 AM to 4:00 PM Eastern Time.
- **Settlement** — The final step of a trade, when the money and the shares officially change hands and become fully yours. Buying a stock feels instant, but settlement happens behind the scenes a little later.
- **Settlement Price** — The official closing price a futures exchange sets at the end of each day. Your futures account gains and losses are calculated from this price.
- **Share** — One small unit of ownership in a company. If a company has 1,000 shares and you own 10, you own 1% of that company.
- **Share Class** — Some companies sell different types of shares, often called Class A and Class B. They may carry different voting power even though they represent ownership in the same company.
- **Share Price** — The cost of one single share of a stock at a given moment. If a stock shows $50, that is the price for one share, not the whole company.
- **Shares Outstanding** — The total number of shares of a company that exist and are held by everyone. Multiply this by the share price and you get the company's total market value (market cap).

- **Short Covering** — Buying back shares you previously sold short, which closes your short position. If many short sellers cover at once, the rush of buying can push the price up fast.
- **Short Interest** — The total number of a stock's shares that have been sold short and not yet bought back. High short interest means many traders are betting the price will fall.
- **Short Position** — A position that profits when a price goes down and loses when it goes up. You can be short by selling shares you borrowed, or by holding options that gain when price falls.
- **Short Selling** — Borrowing shares from your broker, selling them at today's price, and hoping to buy them back cheaper later to return them. If the price rises instead, losses can keep growing with no limit.
- **Short Squeeze** — When a heavily shorted stock jumps in price and short sellers rush to buy back shares to stop their losses. That extra buying pushes the price even higher, very fast.
- **Sideways Market** — A market that drifts up and down inside a range without a clear direction. Prices move, but they do not really go anywhere over time.
- **Simple Moving Average (SMA)** — A line on a chart that averages a stock's price over a set number of days, like the last 50 days. It smooths out daily wiggles so the bigger trend is easier to see.
- **Slippage** — The small difference between the price you expected and the price your order actually filled at. It happens most when prices move fast or few people are trading.
- **Small-Cap Stock** — A stock of a smaller company, usually worth between about $300 million and $2 billion in total. Small-caps can grow fast but tend to swing more and are riskier than big-company stocks.
- **Speculation** — Buying something mainly because you hope its price moves your way soon, accepting a real chance of losing money. It is different from long-term investing, and most trading is speculation.
- **Spot Price** — The price of something right now, for immediate delivery. When a news report names the price of gold or oil, that is the spot price.
- **Spread** — Most often, the small gap between the highest price a buyer offers (the bid) and the lowest price a seller accepts (the ask). It can also mean a trade built from two or more options at the same time.
- **Standard Deviation** — A math measure of how much prices usually swing around their average. A bigger number means wilder, jumpier price movement.
- **Stock** — A piece of ownership in a company. When you buy a stock, you own a small slice of that business and your money rises or falls with it.
- **Stock Buyback** — When a company uses its own cash to buy its shares back from the market. Fewer shares remain, so each remaining share represents a slightly bigger slice of the company.
- **Stock Dividend** — A dividend paid in extra shares instead of cash. If you own 100 shares and get a 5% stock dividend, you receive 5 more shares.
- **Stock Exchange** — An organized marketplace where stocks and other securities are bought and sold, like the New York Stock Exchange (NYSE) and Nasdaq. Exchanges enforce rules so trading is fair and orderly.
- **Stock Index** — A number that tracks the combined performance of a chosen group of stocks, like the S&P 500 or the Nasdaq-100. You cannot buy an index directly; you trade funds, futures, or options based on it.
- **Stock Market** — The whole system of exchanges and networks where company shares are bought and sold. It is where businesses raise money and everyday people invest.

- **Stock Quote** — The latest price information for a stock: its last trade price, the current bid and ask, and how much it has moved today. Your broker app shows quotes all day long.
- **Stock Screener** — A search tool that filters thousands of stocks by rules you pick, like price, size, or how much they moved today. It helps you find candidates instead of scrolling everything.
- **Stock Split** — When a company cuts each share into several cheaper shares. In a 2-for-1 split, your 10 shares at $100 become 20 shares at $50 — you own the same total value.
- **Stop Hunting** — When price briefly pushes past a level where many stop orders sit, triggering them, then reverses. It is one reason beginners sometimes get stopped out right before price goes their way.
- **Stop-Limit Order** — An order that becomes a limit order once price reaches your stop price. It protects you from a terrible fill price, but if price jumps past your limit, the order may never fill at all.
- **Stop Order (Stop Loss)** — An order that sits waiting until price reaches your chosen level, then becomes a market order to get you out. Traders use it to cap a loss — for example, sell automatically if a $50 stock falls to $45.
- **Straddle** — An options trade that buys a call and a put at the same strike price and expiration. It profits if the stock makes a big move in either direction, and loses if price stays quiet.
- **Strangle** — Like a straddle, but the call and put have different strike prices, usually a put below the current price and a call above it. It costs less than a straddle but needs an even bigger move to profit.
- **Strike Price** — The fixed price written into an option contract. A call's strike is the price you may buy the stock at; a put's strike is the price you may sell it at.
- **Supply and Demand** — The basic engine of every price: more eager buyers than sellers pushes price up, and more eager sellers than buyers pushes it down. Every chart move comes back to this.
- **Support** — A price area where a falling stock has tended to stop and bounce, like a floor. Buyers have stepped in there before, so traders watch to see if they do it again.
- **Swing Trading** — A style of trading that holds positions for a few days to a few weeks, aiming to catch a medium-sized move. It is slower than day trading and does not require watching the screen all day.
- **Symbol (Ticker)** — The short code that identifies a stock or fund, like AAPL for Apple or SPY for a popular S&P 500 fund. You type the symbol into your broker app to find and trade it.

T

- **T+1 Settlement** — The current US rule (since May 2024) that stock trades officially settle one business day after the trade. Sell a stock on Monday, and the cash is fully settled on Tuesday.
- **Take Profit** — Deciding in advance the price at which you will sell and lock in a gain. Many traders place a take-profit order so the exit happens automatically instead of getting greedy.
- **Takeover** — When one company buys control of another company. The target company's stock often jumps because the buyer usually pays more than the current price.
- **Tape Reading** — Watching the live stream of actual trades — prices, sizes, and speed — to judge whether buyers or sellers are stronger right now. It is one of the oldest skills in trading.
- **Target Price** — The price level where you plan for a trade to reach, or a price an analyst publishes as their estimate of a stock's value. It is a goal or opinion, never a promise.
- **Tax-Loss Harvesting** — Selling a losing position on purpose near year-end so the loss can lower your taxes, while staying invested in something similar. Tax rules here are tricky, so this is educational only —

talk to a tax professional.

- **Technical Analysis** — Studying price charts and trading volume to make trading decisions, instead of studying the company's business. It assumes past price patterns and trends can help time entries and exits.
- **Theta** — A measure of how much value an option loses each day just because time is passing. If an option's theta is −0.05, it loses about $5 per contract per day, all else equal.
- **Thin Market** — A market or stock with very few buyers and sellers active. Prices can jump around on small orders, spreads get wide, and getting in or out at a fair price is harder.
- **Tick** — The smallest amount a price is allowed to move. For most stocks one tick is one cent; for futures it varies by product, such as 0.25 points on the ES.
- **Tick Value** — The dollar value of one tick in a futures contract. On the ES, one tick (0.25 points) is worth $12.50 per contract; on the smaller MES it is $1.25.
- **Time and Sales** — A live feed showing every trade as it happens: price, number of shares or contracts, and time. It is the raw data tape readers watch.
- **Time Decay** — The daily shrinking of an option's time value as expiration gets closer. It speeds up in the final days, which is why bought options can melt away even when the stock barely moves.
- **Time Value** — The part of an option's price that comes from time remaining and the chance of a big move, rather than from the stock's current price. A $60 call on a $55 stock trading at $2 is all time value.
- **Timeframe** — The amount of time each candle or data point on your chart represents, like 1 minute, 1 hour, or 1 day. Day traders use short timeframes; investors use daily and weekly ones.
- **Top Line** — A company's total sales (revenue), the first line on its earnings report. The "bottom line" is what is left as profit after all costs.
- **Total Return** — Everything you earn from an investment combined: price gains plus dividends or interest. A stock up 5% that also paid a 2% dividend gave a total return of about 7%.
- **Trade Confirmation** — The official record your broker sends after a trade, showing what you bought or sold, the price, and the fees. Always check it to make sure the trade matches what you intended.
- **Trade Date** — The day a trade actually happens. This is different from the settlement date, which is when the money and shares officially change hands.
- **Trade Journal** — A notebook or spreadsheet where you record every trade: why you entered, where you exited, and what you learned. Reviewing it is one of the fastest ways for beginners to improve.
- **Trader** — A person who buys and sells in the markets, usually aiming for shorter-term moves than an investor. Traders can trade stocks, options, futures, and more.
- **Trading Halt** — A temporary pause in trading of a stock or the whole market, ordered by the exchange. Halts happen during extreme moves or while important news is released.
- **Trading Plan** — A written set of rules you decide before trading: what you trade, when you enter, how much you risk, and when you exit. A plan keeps emotions from running your money.
- **Trading Psychology** — How emotions like fear, greed, hope, and revenge affect trading decisions. Managing your mindset is often harder than learning the charts.
- **Trading Range** — The space between a high price (resistance) and a low price (support) where a stock keeps bouncing back and forth. Traders say a stock is "range-bound" while it stays inside.

- **Trailing Stop** — A stop order that follows the price as it rises, staying a set distance below it. If a stock climbs from $50 to $60, a $5 trailing stop rises to $55, locking in gains if price falls.
- **Trailing Twelve Months (TTM)** — Numbers measured over the most recent 12 months, like a company's revenue for the last four reported quarters. It gives an up-to-date picture instead of using one calendar year.
- **Trend** — The general direction a price is moving over time: up, down, or sideways. Many traders try to trade in the same direction as the trend rather than fighting it.
- **Trend Following** — A strategy of jumping on established trends and riding them as long as they last, exiting when the trend breaks. It accepts many small losses to catch a few big moves.
- **Trendline** — A straight line drawn on a chart connecting a series of highs or lows. It helps you see the trend and spot where price might bounce or break through.

U

- **Uncovered (Naked) Option** — An option sold without owning protection against it, like selling a call without owning the stock. Losses can be huge or even unlimited, so brokers restrict this and beginners should avoid it.
- **Underlying** — The thing an option or future is based on. For an Apple call option, the underlying is Apple stock; for S&P 500 futures, it is the S&P 500 index.
- **Underperform** — To do worse than a comparison point, usually the overall market. If your stock rose 2% while the S&P 500 rose 8%, your stock underperformed.
- **Underweight** — An analyst's way of saying they expect a stock to do worse than average, so investors might own less of it than usual. The opposite opinion is called overweight.
- **Underwriter** — A bank that helps a company sell new shares to the public, such as during an IPO (a company's first public stock sale). The underwriter organizes the sale and helps set the starting price.
- **Unlimited Risk** — A position where there is no cap on how much money you can lose. Selling stock short or selling a naked call carries unlimited risk because prices can rise without any ceiling.
- **Unrealized Gain or Loss** — The profit or loss on a position you still hold, measured at today's prices. It only becomes real (realized) when you sell and lock it in.
- **Upside** — The potential for a price to rise, or the amount it might gain. If a stock at $40 could reasonably reach $50, traders say it has $10 of upside.
- **Uptick** — A trade that happens at a price slightly higher than the trade just before it. A series of upticks shows buyers are actively pushing price up.
- **Uptrend** — A pattern where prices keep making higher highs and higher lows over time. It is the chart's way of showing buyers are in control.

V

- **Valuation** — The process of estimating what a company or asset is actually worth. Investors compare that estimate to the current price to decide if something looks cheap or expensive.
- **Value Stock** — A stock that looks cheap compared to the company's earnings, assets, or sales. Value investors buy these hoping the market eventually prices them fairly.
- **Vega** — A measure of how much an option's price changes when expected volatility moves by one percentage point. If vega is 0.10, the option gains or loses about $10 per contract for each 1% change in

implied volatility.

- **Vertical Spread** — An options trade using two options of the same type and expiration but different strike prices, like buying a $50 call and selling a $55 call. It costs less than a single option and caps both your risk and your reward.
- **VIX (Volatility Index)** — A number that measures how much movement traders expect in the S&P 500 over the next 30 days. It often spikes when fear rises, which is why it is nicknamed the "fear gauge."
- **Volatility** — How much and how fast a price swings around. A stock that moves 5% a day is far more volatile than one that moves 0.5% a day.
- **Volatility Crush (IV Crush)** — A sharp drop in an option's price right after a big expected event, like an earnings report, because the uncertainty is gone. It can hurt option buyers even when the stock moves their way.
- **Volume** — How many shares or contracts changed hands during a period. A stock that trades 10 million shares a day has far more volume than one that trades 10 thousand.
- **Volume Profile** — A chart tool that shows how much trading happened at each price level, not just over time. It highlights prices where buyers and sellers were most active.
- **VWAP (Volume-Weighted Average Price)** — The average price of a stock for the day, weighted so trades with more volume count more. Big institutions compare their fills to VWAP, and many traders use it as a fair-price line on the chart.

W

- **Wall Street** — A street in New York City where the financial industry grew up, now used as a nickname for the entire US financial system: the exchanges, big banks, and funds.
- **Warrant** — A long-term certificate, usually issued by a company, giving the holder the right to buy its stock at a set price before a future date. It works much like a long-dated call option.
- **Wash Sale** — A tax rule: if you sell a stock for a loss and buy a substantially identical one within 30 days before or after that sale (a 61-day window total), the loss is disallowed for taxes for now. This is educational only, not tax advice — talk to a tax professional.
- **Watchlist** — A personal list of stocks or contracts you are keeping an eye on but have not bought. Most traders track a small watchlist instead of the whole market.
- **Wedge** — A chart pattern where price swings get narrower between two slanted lines, squeezing like a wedge. It often shows a move is running out of steam and may reverse or break out.
- **Weekly Options** — Option contracts that expire in about a week, listed with expirations on multiple days each week for popular stocks and indexes. Their short life makes time decay very fast.
- **Weighting** — How much influence each stock has inside an index or fund. In the S&P 500, bigger companies count more, so Apple moving 1% shifts the index far more than a small company moving 1%.
- **Whipsaw** — When price suddenly reverses direction right after moving the other way, trapping traders who just entered. Choppy markets whipsaw traders with repeated small losses.
- **Working Order** — An order you have placed that has not filled yet and is still active, like a limit order waiting for its price. It stays working until it fills, you cancel it, or it expires.
- **Writer (Option Writer)** — The person who sells an option contract and collects the premium. The writer takes on the obligation: a call writer may have to sell shares at the strike price.

Y

- **Year-over-Year (YoY)** — Comparing a number to the same period one year earlier, like this quarter's sales versus the same quarter last year. It removes seasonal effects and shows true growth.
- **Year-to-Date (YTD)** — A measurement from January 1 to today. If a stock is "up 12% YTD," it has gained 12% since the start of the year.
- **Yield** — The income an investment pays you, shown as a percentage of its price. A stock priced at $100 that pays $3 a year in dividends has a dividend yield of 3%.
- **Yield Curve** — A line showing interest rates for bonds of different lengths, from months to 30 years. Normally longer bonds pay more; when short-term rates rise above long-term ones, economists watch closely because it has often preceded recessions.

Z

- **Zero DTE (0DTE)** — Options that expire today, on the same day you trade them ("DTE" means days to expiration). They can move from cheap to worthless in minutes, so they are extremely risky and decay incredibly fast.
- **Zero-Sum Market** — A market where one trader's gain is exactly another trader's loss, like futures and options. For every winner there is a loser on the other side of the trade, before fees.



AA2-20

ALPHA TRADING GLOSSARY XL

850+ market terms defined in plain English. Fully searchable — press Ctrl+F or Cmd+F.

Alpha Academy Level 2 reference series · Team Alpha Trading

Alpha Trading Glossary — Expanded Edition

The complete Alpha Academy dictionary — **852 market terms** defined in the plainest English we could write. This expanded edition takes the original 519-term glossary and adds over 330 more: order flow, gamma and dealer positioning, volatility, advanced options structures, trader taxes, market internals, and the slang you will actually hear on a trading desk — each one defined honestly, with the risk stated where there is risk.

How to Search This Glossary

This glossary is fully searchable. Open the PDF and use find — **Ctrl+F** on Windows or **Cmd+F** on Mac — type the word, and jump straight to it. On a phone or tablet, use the search option in your PDF app. Terms are organized A–Z if you prefer to browse.

> **TIP**
> Keep this file open beside everything else you study. When any module — or any trader — uses a word you cannot define out loud, look it up here first.

A

- **Abandoned Baby** — A rare three-candle reversal pattern: a strong candle, a doji (a candle that opens and closes at nearly the same price) that gaps away, then a strong candle back the other way. It can hint a trend is exhausted, but like every pattern it is a clue, not a promise.
- **Account** — The place at a brokerage firm where your money and investments are held. You deposit cash into it, and all your buying and selling happens through it.
- **Accredited Investor** — A person the government allows to buy certain riskier, private investments because they meet income or wealth requirements set by regulators. Most everyday stocks and funds are open to everyone, accredited or not.
- **Accrued Interest** — Interest that has built up on a bond since its last payment date. When you buy a bond between payment dates, you pay the seller this amount on top of the price, and you get it back at the next payment.
- **Accumulation/Distribution Line** — An indicator that tracks whether money is flowing into a stock (accumulation, quiet buying) or out of it (distribution, quiet selling) using price and volume together. Traders watch whether it confirms the price trend or disagrees with it.
- **Acquisition** — When one company buys another company. Example: if a giant company buys a small one, the small company's stock usually stops trading on its own.
- **Actively Managed Fund** — A pooled investment where a professional manager hand-picks what to buy and sell, trying to beat the overall market. These usually charge higher fees than funds that simply copy an index.
- **Adjusted Close** — A stock's closing price after it has been corrected for things like dividends and stock splits. It gives a truer picture of the stock's real return over time.
- **Advance/Decline Line** — A market breadth line that adds up, day by day, how many stocks rose minus how many fell. If the market index is rising but this line is falling, fewer and fewer stocks are doing the lifting — a warning sign, not a signal by itself.

- **ADX (Average Directional Index)** — An indicator scored 0 to 100 that measures how strong a trend is, not which direction it goes. Many traders read above 25 as a real trend and below 20 as a choppy, directionless market.
- **After-Hours Trading** — Buying and selling stocks outside the regular market session of 9:30 AM to 4:00 PM Eastern Time. Prices can move more wildly then because fewer people are trading.
- **After-Tax Return** — What you actually keep from an investment after taxes are paid. A gain that looks bigger before taxes can end up smaller than a "lower" gain once the tax bill is counted.
- **Algorithm** — A set of step-by-step rules a computer follows to make decisions, such as when to buy or sell. Many large firms use algorithms to place trades automatically in a fraction of a second.
- **All-or-None Order** — An order to buy or sell that must be filled completely, in full, or not at all. If the full amount is not available, the trade simply does not happen.
- **Alpha** — A measure of how much an investment beat a comparison index, such as the S&P 500. If a fund returned 12% and its index returned 10%, the extra 2% is its alpha.
- **Alpha Decay** — The way a trading edge slowly stops working as more people discover and copy it. Any strategy that once printed money tends to fade — one more reason backtest results never guarantee future results.
- **American Depositary Receipt (ADR)** — A certificate traded on a US exchange that represents shares of a foreign company. It lets Americans invest in overseas companies without opening a foreign account.
- **American-Style Option** — An option contract the owner can use (exercise) at any time before it expires, not just on the last day. Most options on individual US stocks work this way.
- **Amortization** — Spreading a cost or a debt payment out over time in equal pieces. A loan is amortized when each monthly payment chips away at both the interest and the amount borrowed until it reaches zero.
- **Analyst** — A professional who studies companies, their finances, and their industries, then publishes opinions on whether a stock looks attractive. Their views are opinions, not guarantees.
- **Anchored VWAP (AVWAP)** — The volume weighted average price measured from one starting point you choose, such as an earnings day or a big high or low, instead of from the start of the day. Traders use it to judge who has been in control since that important moment.
- **Annual Meeting** — A yearly gathering where a company's leaders report to shareholders and shareholders vote on things like board members. Public companies are required to hold one.
- **Annual Report** — A detailed yearly document a company publishes about its business and finances, including its audited financial statements. The official version filed with regulators is called a 10-K.
- **Annualized Return** — A return restated as if it happened evenly over one full year, so different time periods can be compared fairly. A 5% gain in six months is roughly a 10% annualized return — but markets rarely repeat on schedule.
- **Annualized Volatility** — How much a price typically swings, restated as a yearly percentage. Implied volatility on options is quoted this way: 20% annualized means about 5.8% of expected movement over the next 30 days.
- **Annuity** — A contract, usually sold by an insurance company, that pays you a series of payments over time in exchange for money you pay in. People often use annuities for retirement income.
- **Appreciation** — An increase in the value of an investment. If you buy a stock at $40 and it rises to $55, that $15 rise is appreciation.

- **Arbitrage** — Buying something in one place and selling it at the same moment in another place for a slightly higher price, pocketing the tiny difference. Computers do most of this now because the gaps last only instants.
- **Ascending Triangle** — A chart pattern with a flat ceiling (resistance) and rising lows pushing up underneath it, like a crowd pressing harder and harder against a door. It often breaks upward, but "often" is not "always."
- **Asian Session** — The trading hours centered on Tokyo, roughly the evening and overnight hours in the US (about 7 PM to 4 AM Eastern). Forex and futures trade then, usually more quietly than the US session.
- **Ask** — Short for ask price: the lowest price a seller is currently willing to accept for a stock or contract. It is the price you will usually pay when you buy right away.
- **Ask Price** — The lowest price any seller is offering at this moment. Example: if the ask price is $50.05, that is the cheapest you can buy a share for right now.
- **Ask Size** — The number of shares or contracts sellers are offering at the ask price. It shows how much is available to buy at that cheapest offered price.
- **Asset** — Anything of value that you own, such as cash, a house, or shares of stock. In trading, your assets are the money and investments in your account.
- **Asset Allocation** — How you divide your money among different kinds of investments, like stocks, bonds, and cash. Example: 70% stocks and 30% bonds is one simple allocation.
- **Asset Class** — A group of similar investments, such as stocks, bonds, real estate, or commodities like gold and oil. Different classes tend to behave differently in the same economy.
- **Assignment** — When the seller of an option is chosen to fulfill the contract — for example, being required to sell 100 shares at the agreed price because the buyer used their option. Sellers cannot control when this happens.
- **At-the-Close Order** — An order that is carried out as close as possible to the market's closing price at the end of the day. Traders use it when they want the day's final price.
- **At-the-Money** — Describes an option whose strike price (the set price in the contract) is equal, or very close, to the current price of the stock. A $50 call option on a $50 stock is at-the-money.
- **At-the-Open Order** — An order that is carried out as close as possible to the market's opening price at the start of the day. If it cannot be filled at the open, it is usually cancelled.
- **Auction Market** — A market where buyers and sellers compete openly with bids and offers and the trade happens where they meet, the way the stock exchanges work. The price is simply wherever the highest buyer and lowest seller agree.
- **Authorized Participant** — A large firm allowed to create or destroy shares of an ETF by trading baskets of the underlying stocks with the fund company. This behind-the-scenes work is what keeps an ETF's price close to the value of what it holds.
- **Authorized Shares** — The maximum number of shares a company is legally allowed to issue, set in its founding paperwork. It is bigger than the shares actually out in the market, because the company keeps room to issue more later.
- **Automatic Exercise** — At expiration, an option that is in-the-money (worth using) by even a small amount is usually exercised automatically by the clearing system unless you instruct otherwise. Check your broker's exact rule so you are never surprised.

- **Average Daily Range (ADR)** — The average distance between a stock's high and low each day over a recent period, usually about 14 days. It tells you how much room a stock normally has to move in a day, which helps with realistic targets and stops.
- **Average Daily Volume** — The average number of shares of a stock that change hands on a typical trading day. High volume means lots of people are trading it, so buying and selling is usually easier.
- **Average True Range** — A measuring tool (often shortened to ATR) that shows how much a stock's price typically moves in a day, including gaps. Traders use it to judge how jumpy a stock is and where to place stop losses.
- **Averaging Down** — Buying more shares of something after its price has fallen, which lowers your average cost per share. It can help if the price recovers, but it also puts more money into a losing position, so it is risky.
- **Averaging Up** — Buying more shares of something after its price has risen, which raises your average cost per share. Traders do this when a winning position keeps proving itself.

B

- **Backtesting** — Testing a trading strategy on old price data to see how it would have performed in the past. Good past results do not guarantee future profits.
- **Bag Holder** — Slang for someone still holding an investment that has crashed in value, usually because they could not bring themselves to sell. It is the end result of buying hype with no exit plan.
- **Balance Sheet** — A financial snapshot of a company at one moment, listing what it owns (assets), what it owes (liabilities), and what is left over for owners. It answers the question: what is this company worth on paper right now?
- **Bankruptcy** — The legal process a company goes through when it cannot pay its debts. Shareholders are last in line to get anything back, and the stock usually ends up worthless or nearly so.
- **Bar Chart** — A type of price chart where each bar shows a period's opening price, highest price, lowest price, and closing price. It packs the same information as a candlestick into simple lines.
- **Basis** — In futures, the gap between the futures price and the current cash (spot) price of the same thing. The basis shrinks toward zero as the contract reaches expiration.
- **Basis Point** — One one-hundredth of a percent, written as 0.01%. If the Federal Reserve raises rates by 25 basis points, that means a 0.25% increase.
- **Basis Trade** — A professional strategy that buys the cash version of something and sells the futures version (or the reverse) to profit from the small gap between them closing. It uses heavy borrowing and is not a beginner trade — small gaps can still produce big losses when leveraged.
- **Bear Call Spread** — An options strategy using two call contracts: you sell one call and buy a higher-priced call for protection, collecting money up front. It profits if the stock stays flat or falls, and both profit and loss are capped.
- **Bear Flag** — A chart pattern where price drops sharply (the pole), then drifts slowly upward in a narrow channel (the flag), then often breaks down again. It is a pause inside a downtrend, not proof the fall is over.
- **Bear Market** — A long period when the overall market has fallen 20% or more from a recent high. Bear markets are painful but a normal part of investing history.

- **Bear Market Rally** — A sharp rise in prices inside a longer bear market that fades and gives way to new lows. These rallies are some of the fastest moves in markets, which is exactly why they trap buyers who mistake them for the bottom.
- **Bear Put Spread** — An options strategy using two put contracts: you buy one put and sell a lower-priced put to reduce the cost. It profits if the stock falls, and both profit and loss are capped.
- **Bear Trap** — A false drop below a support level that pulls in sellers and short sellers, then snaps back up and squeezes them out at a loss. It is why traders wait for confirmation instead of jumping at the first break.
- **Bearish** — Believing a price will go down. A bearish trader expects falling prices, just as a bear swipes its paws downward.
- **Bearish Engulfing** — A two-candle pattern at the top of an up-move: a green candle followed by a bigger red candle whose body completely covers the first. It suggests sellers took control, but it needs confirmation from what happens next.
- **Benchmark** — A standard used to compare performance against, usually an index like the S&P 500. If your account grew faster than your benchmark, you beat the market; slower, and you lagged it.
- **Beta** — A number that measures how much a stock tends to swing compared with the overall market. A beta of 1 moves about with the market, 2 means roughly double the swings, and 0.5 means about half.
- **Beta Weighting** — A way of converting all your different positions into one common measuring stick, usually "how much would I gain or lose if the S&P 500 moved 1%." Brokers offer it so you can see your true overall market exposure in one number.
- **Bid** — Short for bid price: the highest price a buyer is currently willing to pay for a stock or contract. It is the price you will usually get when you sell right away.
- **Bid Price** — The highest price any buyer is offering at this moment. Example: if the bid price is $50.00, that is the most you can sell a share for right now.
- **Bid Size** — The number of shares or contracts buyers want to purchase at the bid price. It shows how much demand is waiting at that highest offered price.
- **Bid-Ask Spread** — The gap between the bid price (what buyers offer) and the ask price (what sellers want). A wider gap means trading costs you more, because you buy at the higher price and sell at the lower one.
- **Black Swan** — A shocking event nobody had priced in — a crash, a crisis, a sudden collapse — that moves markets violently. By definition you cannot predict one; the only defense is position sizing and not risking everything on one idea.
- **Block Trade** — A single very large trade, usually at least 10,000 shares, often made by a big institution rather than an individual. Block trades are often arranged privately to avoid disturbing the market price.
- **Blow-Off Top** — The final, frantic burst of buying at the end of a long rise: price rockets up on huge volume, then reverses hard. It looks like pure excitement at the time and pure exhaustion afterward.
- **Blue-Chip Stock** — A share of a large, well-known, financially strong company with a long history, like the biggest household-name businesses. Blue chips are considered steadier than most stocks, though they can still fall.
- **Bollinger Bands** — Lines drawn on a chart above and below a moving average, usually set two standard deviations (a measure of spread) away. The bands widen when a stock moves wildly and squeeze tight when it is calm, helping traders spot unusual moves.

- **Bollinger Squeeze** — When Bollinger Bands pinch in unusually tight around price, showing that movement has gone very quiet. Quiet periods tend to be followed by big moves — but the squeeze itself does not tell you which direction.
- **Bond** — A loan you make to a company or government: you hand over money, they pay you interest on a schedule, and they promise to return your money on a set date. Bonds are generally calmer than stocks but usually grow more slowly.
- **Bond Ladder** — Owning several bonds (or bond funds with set maturity targets) that come due in different years, like rungs on a ladder. As each one matures you reinvest at the far end, which smooths out the risk of interest rates moving against you.
- **Bond Yield** — The return a bond pays, expressed as a percentage of its price. When a bond's price falls, its yield rises, and when its price rises, its yield falls.
- **Book Value** — What a company would be worth on paper if it sold everything it owns and paid off everything it owes. Book value per share divides that number by the number of shares.
- **Book Value Per Share** — What a company would theoretically be worth per share if it sold everything it owns, paid every debt, and split what was left among shareholders. It is an accounting number, not a promise — many stocks trade far above or below it for years.
- **Bottom Fishing** — Trying to buy a stock that has fallen hard, guessing the worst is over. Sometimes it works; often the stock keeps falling, which is why traders joke about catching a falling knife.
- **Bounce** — A short rise in price after a drop. A bounce is not the same as a recovery — falling stocks bounce many times on the way down.
- **Bracket Order** — An order that bundles three instructions: buy (or sell), plus a profit-taking price and a stop-loss price attached. Whichever exit price is hit first closes the trade automatically.
- **Breadth** — A measure of how many stocks are joining in a market move: how many are rising versus falling. A rally carried by only a handful of giant stocks has weak breadth and is more fragile than it looks.
- **Break-Even Point** — The price at which a trade makes no profit and no loss. For a bought call option, it is the strike price plus the premium paid; for a bought put, it is the strike price minus the premium.
- **Breakout** — When a price pushes through a level where it kept stopping and turning around before, often with heavy trading. Traders watch breakouts because a strong move sometimes follows.
- **Broker** — A licensed company (or its representative) that carries out buy and sell orders for customers in exchange for fees. Your brokerage account is held with a broker.
- **Bubble** — A period when prices rise far beyond what the underlying business or asset can justify, fueled by excitement and the fear of missing out. Bubbles always look obvious afterward and feel unstoppable while you are inside one.
- **Bull Call Spread** — An options strategy using two call contracts: you buy one call and sell a higher-priced call to lower the cost. It profits if the stock rises, and both profit and loss are capped.
- **Bull Flag** — A chart pattern where price rises sharply (the pole), then drifts slowly downward in a narrow channel (the flag), then often breaks upward again. It is a rest inside an uptrend — "often," never "guaranteed."
- **Bull Market** — A long period when the overall market has risen 20% or more from a recent low. Bull markets reward patience but eventually always end.

- **Bull Put Spread** — An options strategy using two put contracts: you sell one put and buy a lower-priced put for protection, collecting money up front. It profits if the stock stays flat or rises, and both profit and loss are capped.
- **Bull Trap** — A false break above a resistance level that pulls in buyers, then reverses down and traps them. The mirror image of a bear trap, and the reason breakouts are confirmed, not assumed.
- **Bullish** — Believing a price will go up. A bullish trader expects rising prices, just as a bull thrusts its horns upward.
- **Bullish Engulfing** — A two-candle pattern at the bottom of a down-move: a red candle followed by a bigger green candle whose body completely covers the first. It suggests buyers stepped in, but one pattern never confirms a turn by itself.
- **Burn Rate** — The speed at which a company that is losing money spends its cash, usually quoted per month. Divide the cash in the bank by the burn rate and you get roughly how long the company can survive before it must raise more money or cut costs.
- **Business Cycle** — The repeating pattern of the economy growing for a while, then slowing or shrinking, then recovering. Different kinds of companies tend to do well at different stages of the cycle.
- **Butterfly Spread** — An options strategy using three strikes in the same expiration, built to profit if price pins near the middle strike at expiration. Risk is limited to what you paid, but the winning zone is narrow — price has to land close to the middle.
- **Buy and Hold** — A strategy of buying an investment and keeping it for years through ups and downs, rather than trading in and out. It is the approach most long-term investors use.
- **Buy the Dip** — Buying after a price drop on the belief it will recover. It works beautifully in bull markets and destroys accounts in real downtrends, because every leg down looks like "the dip" at the time.
- **Buy to Close** — An order that closes a position you previously sold short, by buying back the same stock or option contract. After it fills, that short position is gone.
- **Buy to Open** — An order that starts a brand-new long position, such as buying an option contract you did not own before. It is the first half of a trade; buy to close or sell to close ends it.
- **Buy-Write** — Placing a covered call at the same time you buy the stock, as a single combined trade. It is simply a covered call entered in one step instead of two.
- **Buyback** — When a company purchases its own shares back from the market, reducing the number of shares in public hands. Fewer shares can make each remaining share represent a bigger slice of the company.

C

- **Calendar Spread** — An options spread using the same strike price but two different expiration dates: you sell the sooner one and buy the later one. It profits mainly from the near option losing time value faster, and the most you can lose is the debit you paid.
- **Call Option** — A contract giving you the right, but not the duty, to buy 100 shares of a stock at a set price (the strike price) any time before a set date. You pay a premium for this right, and that premium is the most you can lose.
- **Call Wall** — The strike price with the largest amount of call open interest, often tracked with gamma exposure (GEX) tools. Price frequently stalls near a call wall, but it is a level to watch, not a force field — walls get run over on strong days.

- **Candle Body** — The thick middle part of a candlestick, stretching from the open price to the close price. A long body shows one side won decisively that period; a tiny body shows a standoff.
- **Candlestick** — A chart shape that shows a period's opening price, closing price, and the high and low in between, using a thick body and thin wicks. Green usually means the price rose during the period; red means it fell.
- **Cap-Weighted Index** — An index where bigger companies count for more, in proportion to their market capitalization (share price times shares). The S&P 500 works this way, so a handful of giants can drive most of the index's movement.
- **Capital** — The money and assets you have available to invest or run a business. In trading, your capital is the cash you could put at risk.
- **Capital Gain** — The profit you make when you sell an investment for more than you paid for it. Example: buy at $50, sell at $70, and your capital gain is $20 per share.
- **Capital Gains Tax** — The tax you may owe on a capital gain after you sell. Investments held over a year usually get a lower tax rate than ones held a year or less; this is educational only, not tax advice — talk to a tax professional.
- **Capital Loss** — The loss you take when you sell an investment for less than you paid for it. Example: buy at $70, sell at $50, and your capital loss is $20 per share.
- **Capitalization** — Also called market cap: the total value of a company in the stock market, found by multiplying the share price by the number of shares. A $100 stock with 1 billion shares has a capitalization of $100 billion.
- **Capitulation** — The moment discouraged holders finally give up and sell all at once, usually on very heavy volume near the end of a decline. It often happens close to a bottom — but "close" can still mean a lot more pain first.
- **Cash Account** — A brokerage account where you can only trade with money you have actually deposited and settled — no borrowing. It is the simplest and safest account type for beginners.
- **Cash Drag** — The slow cost of keeping too much money sitting in cash while the rest of the market rises. Cash feels safe, but over years its return usually loses to even mild inflation.
- **Cash Flow** — The movement of money into and out of a business or account over a period. A company with strong positive cash flow takes in more cash than it spends.
- **Cash Flow Statement** — One of a company's three main financial reports, showing the actual cash that came in and went out during a period. Unlike the income statement, it is hard to dress up — cash either arrived or it did not.
- **Cash Settlement** — When a contract is settled by paying the cash difference in value instead of delivering the actual item, like shares or barrels of oil. Index options such as SPX settle this way.
- **Cash-Secured Put** — Selling a put option while keeping enough cash in the account to buy the shares if you are assigned. Example: sell a $50 put and hold at least $5,000 cash (100 shares times $50) — your real risk is the stock falling far below $50, so only do it on stocks you genuinely want to own.
- **Catalyst** — A news event or announcement that pushes a stock's price to move, such as an earnings report, a new product, or a government decision. Traders watch calendars to know when catalysts are coming.
- **Certificate of Deposit (CD)** — A savings product at a bank where you lock money away for a set time (say one year) in exchange for a fixed interest rate. Taking it out early usually costs you interest as a

penalty.

- **Channel** — Two parallel lines that contain most of a price trend, one above price and one below. Traders watch price bounce between the lines — and pay attention when it finally escapes, because that can mean the trend is changing.
- **Chart** — A picture of how a price has moved over time. Charts are the main tool traders use to study past price behavior and plan trades.
- **Chart Pattern** — A recognizable shape that prices sometimes form on a chart, like a triangle or a double top, which traders watch for clues about what might happen next. Patterns are tendencies, not promises.
- **Choppiness Index** — An indicator scored roughly 0 to 100 that judges whether the market is trending smoothly or chopping sideways. Readings above about 61.8 suggest chop and below about 38.2 suggest a trend — a guide for matching your strategy to conditions, not a buy or sell signal.
- **Churning** — Trading far too much. When a broker does it to a client's account it is illegal, because the trades exist to generate commissions; when you do it to yourself, the costs and mistakes quietly eat your account the same way.
- **Circuit Breaker** — A pre-set rule that temporarily pauses trading across the market after a very sharp fall, giving everyone time to calm down and absorb news. Individual stocks have similar pause rules for extreme moves.
- **Clearing House** — A neutral middleman organization that stands between buyers and sellers to make sure every trade is completed and paid as promised. It greatly reduces the risk that one side fails to deliver.
- **Closing Auction** — The final few minutes of the trading day when orders are matched in one big batch to set each stock's official closing price. Huge funds trade heavily here, which is why volume explodes in the last minutes.
- **Closing Bell** — The bell rung at 4:00 PM Eastern Time that signals the end of the regular trading day on the New York Stock Exchange. After it, regular trading hours are over.
- **Closing Price** — The final price at which a stock or contract traded during a regular trading session. It is the price most often quoted in news reports about the day.
- **Cold Wallet** — A crypto wallet whose keys are stored on a device that is not connected to the internet, such as a small hardware device kept offline. It protects against online hacking, but if you lose the device and its backup phrase, the money is gone for good.
- **Collar** — An options strategy where you own a stock, buy a protective put (insurance against a fall), and pay for it by selling a call that caps your upside. It limits both your possible loss and your possible gain.
- **Collateral** — Something of value pledged to back up a loan or a trade. If you fail to meet your obligation, the lender can take the collateral — in margin accounts, the securities you bought are the collateral.
- **Commission** — A fee a broker charges for executing a trade. Many US brokers now charge zero commission on stock trades but still charge a per-contract fee on options — check your broker for the current number.
- **Commission-Free Trading** — Broker pricing where you pay no visible fee per trade. The broker still earns money, mainly by routing your orders to firms that pay for them — so "free" means the cost is hidden in tiny price differences, not that trading costs nothing.

- **Commitment of Traders (COT) Report** — A free weekly government report (published by the CFTC on Fridays) showing how big futures traders — commercial hedgers, large speculators, and small traders — are positioned. It shows positioning, not the future; use it as background, never as a signal by itself.
- **Commodity** — A basic raw product that is the same no matter who produces it, like oil, gold, wheat, or coffee. Commodities are traded heavily with futures contracts.
- **Common Stock** — The standard ownership shares of a company that most people buy, usually carrying voting rights on company matters. If a company fails, common stockholders are paid last, after lenders and bondholders.
- **Compound Annual Growth Rate (CAGR)** — The smooth yearly growth rate that would turn a starting value into an ending value. If $10,000 became $16,000 in five years, that is a CAGR of about 9.9% — real returns bounce around year to year; CAGR is just the average path.
- **Compound Interest** — Earning interest not only on your original money but also on the interest it has already earned, so growth snowballs over time. Starting early matters more than starting big.
- **Consolidation** — A period when a price moves sideways within a fairly tight range after a bigger move, as buyers and sellers take a breather. Traders watch for the price to break out of the range.
- **Consumer Price Index (CPI)** — A government report measuring how much everyday goods and services cost compared with before — the most watched measure of inflation. CPI releases often move the whole market because they influence interest-rate decisions.
- **Contango** — When futures contracts for later months cost more than contracts for nearer months, which is the normal pattern for many commodities. It reflects costs like storage and insurance over time.
- **Contract** — A standardized legal agreement traded on an exchange, such as an option or futures contract, that spells out exactly what is being bought or sold, how much, and by when. One standard stock option contract covers 100 shares.
- **Contract Month** — The month in which a futures contract expires and must be settled or rolled into a later month. Traders name futures by their contract month, like the December crude oil contract.
- **Contract Month Codes** — The single letters futures traders use for delivery months: F January, G February, H March, J April, K May, M June, N July, Q August, U September, V October, X November, Z December. That is why a December S&P 500 futures contract is written ESZ — ES, then Z for December, then the year.
- **Contrarian** — An investor who deliberately goes against the crowd — buying when most people are fearful and prices are beaten down, or pulling back when everyone is euphoric. It sounds simple but is emotionally very hard.
- **Convergence** — The futures idea that as a contract reaches expiration, its price must meet the real cash (spot) price of the thing it tracks. On the last day there can be no gap between "price later" and "price now."
- **Convertible Bond** — A bond that can be exchanged for a set number of shares of the company's stock. It pays interest like a bond but can join in if the stock takes off — usually in exchange for a lower interest rate than a plain bond.
- **Core Inflation** — The inflation rate with food and energy prices removed, watched closely by the Federal Reserve because those two swing wildly month to month. It is meant to show the underlying trend of prices, even though your grocery bill disagrees.

- **Core Position** — The main, long-term holding a trader or investor builds around, as opposed to smaller side trades. Many people keep a core in broad index funds and take their active trades around it with a small part of the account.
- **Correction** — A market or stock decline of 10% or more from a recent high, but less than the 20% that defines a bear market. Corrections are common and usually healthy, even though they feel scary.
- **Correlation** — How closely two things move together, measured from +1 (perfectly together) to −1 (perfectly opposite), with 0 meaning no relationship. Owning ten tech stocks that all move together is not diversification, because their correlation is near +1.
- **Cost Basis** — The total original cost of an investment, including the purchase price and fees, used to figure out your profit or loss and your taxes. If you paid $500 for shares plus a $5 fee, your cost basis is $505.
- **Cost Basis Method** — The rule your account uses to decide which shares you sold when you own the same stock bought at different prices — first-in-first-out (FIFO) sells your oldest shares first, while specific-lot selection lets you pick exactly which shares. The choice changes your tax bill, so it is worth setting deliberately before you sell, and you should confirm the details with a tax professional.
- **Cost of Carry** — Everything it costs to hold something until a future date: storage, insurance, and the interest on the money tied up. These costs are a big reason futures prices differ from today's cash price.
- **Counterparty Risk** — The risk that the other side of a deal fails to hold up its end — a broker, a bank, or an exchange collapses before paying you. It is why regulation, clearing houses, and segregated accounts matter, especially in crypto markets where protections are thinner.
- **Coupon** — The regular interest payment a bond makes to its owner, usually expressed as a yearly percentage of the bond's face value. A $1,000 bond with a 5% coupon pays $50 a year.
- **Covered Call** — Selling a call option on a stock you already own at least 100 shares of, collecting the premium as income. Your shares cover the obligation if the buyer exercises, but your upside is capped at the strike price.
- **Credit Rating** — A letter grade from agencies like Moody's, S&P, and Fitch judging how likely a borrower is to repay: AAA is the safest, and anything below BBB− is considered "junk." Ratings are opinions that have been wrong before — they are a starting point for research, not a guarantee.
- **Credit Spread** — An options strategy where you sell one option and buy another of the same type further from the money, receiving more premium than you pay. Your maximum loss is capped at the gap between the two strike prices minus the credit you received.
- **Cross Margin** — A margin setup where your whole account's positions support each other, so gains in one position can cover requirements in another. It is efficient but dangerous: one bad position can pull margin from everything else you hold.
- **Crowded Trade** — A trade so popular that nearly everyone is already in it. Crowded trades feel safe — until everyone tries to exit through the same small door at once and the move turns violent.
- **Cup and Handle** — A chart pattern shaped like a teacup: price falls and rounds back up (the cup), pauses with a small dip (the handle), then breaks upward. It is a popular pattern, which also means it is widely watched and can fail like any other.
- **Currency** — The money of a country, such as US dollars, euros, or Japanese yen. Currencies are traded in pairs, betting that one will strengthen against the other.

- **Currency Pair** — The two currencies quoted against each other in forex trading, such as EUR/USD, where the first is priced in terms of the second. You are always buying one currency while selling the other — never just "buying the euro."
- **Current Ratio** — A quick health check for a company: its current assets (things convertible to cash within a year) divided by its current liabilities (bills due within a year). A ratio above 1 means it can cover its near-term bills on paper.
- **Custodial Account** — An investment account an adult opens and controls for a minor, such as a UGMA or UTMA account in the US. The money legally belongs to the child and becomes fully theirs at the age set by state law.
- **Cyclical Stock** — A stock whose business rises and falls with the economy, like airlines, car makers, and hotel chains. These companies earn the most when times are good and suffer first when times turn bad.

D

- **Daily range** — The distance between a stock's highest and lowest price in a single trading day. A stock that traded between $48 and $52 has a daily range of $4, which tells you how much it typically moves in a day.
- **Dark pool** — A private trading venue where big investors buy and sell away from the public exchanges, so their large orders do not move the price before they finish. Regular investors buy and sell on public exchanges instead.
- **Day order** — An order to buy or sell that cancels automatically if it has not filled by the end of that trading day. If you place a day order at 10 AM and it never executes, it is gone at the 4 PM close.
- **Day trade** — Buying and selling the same stock or option on the same day, opening and closing the position before the market closes. Buying shares at 10 AM and selling them at 2 PM is one day trade.
- **Day trader** — Someone who makes day trades often, trying to profit from small price moves within a single day. Brokers flag very frequent day traders in margin accounts, and special equity rules can apply — the classic rule required $25,000 in the account, regulators have been replacing it with intraday-margin standards, so check your own broker's current rule.
- **Dead cat bounce** — A small, brief price rise in the middle of a bigger fall, after which the price keeps dropping. It tricks some buyers into thinking the worst is over when it is not.
- **Dead money** — Money sitting in an investment that is going nowhere, neither rising nor paying anything worthwhile. Traders call a flat, stuck stock dead money because that cash could be working somewhere else.
- **Death cross** — A chart signal where a stock's 50-day average price crosses below its 200-day average price, after the stock has been falling. Some traders treat it as a warning sign for the long term, but it appears after much of a decline has already happened and is not a guarantee.
- **Debit** — Money you pay out to open a trade. If an option spread costs you $200 to open, that $200 is a debit.
- **Debit spread** — An options trade with two parts (one bought, one sold) that you pay money to open. For a basic debit spread, the most you can lose is the amount you paid, and the most you can gain is the spread's width minus what you paid.
- **Debt** — Money that is owed. A company with debt has borrowed money it must pay back, the same way a person owes money on a loan.
- **Decay** — The steady loss of an option's time value as expiration gets closer, also called time decay or theta decay. It works against option buyers every single day, even if the stock does not move at all.
- **Deep in the money** — Describes an option that already has a lot of built-in value because the stock price is far past the strike price. Example: a call with a $50 strike price while the stock trades at $70 is deep in the money.
- **Deflation** — The opposite of inflation: prices in general slowly falling over time, so a dollar buys more later than it does today. It sounds nice but can signal a weak economy.
- **Deleveraging** — Cutting back on borrowed money and debt, by a company, a fund, or a whole market. When everyone deleverages at once by selling, prices can fall fast, as happened in the 2008 crisis.
- **Delisting** — When a stock is removed from an exchange, usually because the company broke the exchange's rules or its price fell too low for too long. After delisting, the stock becomes much harder to buy and sell.

- **Delivery** — In futures, the moment the actual goods behind a contract (like oil or gold) are due to change hands. Most traders close or roll their futures contracts before delivery so they never deal with real barrels or bars.
- **Delta** — An options number that estimates how much an option's price will move if the stock moves $1. A delta of 0.40 means the option gains roughly $0.40 if the stock rises $1, and loses roughly $0.40 if the stock falls $1.
- **Delta hedging** — Adjusting a position to offset its directional risk, usually by buying or selling shares against an options position. Market makers do this constantly so a big stock move does not hurt them too much either way.
- **Delta neutral** — A position set up so a small move in the stock barely changes its value, because the positive and negative deltas cancel out. Traders use it when they want to bet on volatility or time passing rather than on direction.
- **Demand** — How much of something buyers want at a given price. When demand is high and supply is limited, prices tend to rise.
- **Depreciation** — An accounting way of spreading the cost of a long-lived asset, like factory equipment, across the years it is used instead of all at once. It lowers reported profit on paper even though no cash left the company that year.
- **Derivative** — A contract whose value comes from something else, like a stock, an index, or a commodity. Options and futures are derivatives — they have no value on their own, only through the thing they are based on.
- **Descending triangle** — A chart pattern where the price keeps hitting the same flat support level while its highs get lower and lower, squeezing it into a downward-pointing triangle. It often resolves with a break below support, but the pattern fails plenty of times.
- **Diagonal spread** — An options spread using two different strike prices AND two different expiration dates. It blends a calendar spread and a vertical spread, and its risk is typically limited to the debit paid.
- **Diamond hands** — Internet slang for holding an investment through big drops and pressure to sell, refusing to let go. It sounds brave, but holding a truly broken investment all the way down is how small losses become disasters — a plan beats stubbornness.
- **Dip** — A small, short-term drop in a price. "Buying the dip" means buying after that small drop, hoping the price climbs back.
- **Discount broker** — A broker that charges very low or zero commissions and offers few extras like advice or research. Most modern app-based brokers are discount brokers.
- **Discretionary trading** — Trading by human judgment, feel, and experience rather than by fixed written rules. It can work for seasoned traders, but beginners using pure discretion usually end up trading their emotions instead.
- **Distribution day** — A day when a major index falls on heavier trading volume than the day before, hinting that big institutions are selling. A cluster of distribution days in a few weeks is a classic warning that an uptrend may be tiring.
- **Diversification** — Spreading your money across different investments instead of putting it all in one. If you own 20 different stocks and one crashes, the other 19 soften the blow.
- **Dividend** — A cash payment a company sends its shareholders — like a small thank-you check for owning the stock. Not every company pays one, and dividends are never guaranteed.

- **Dividend capture** — A strategy of buying a stock just before its ex-dividend date to collect the dividend, then selling soon after. It rarely works as free money, because the stock's price usually drops by about the dividend amount on the ex-date.
- **Dividend payout ratio** — The share of a company's profit paid out as dividends. A company earning $4 per share and paying $1 in dividends has a payout ratio of 25%; a ratio near or above 100% can mean the dividend is at risk.
- **Dividend yield** — A simple way to compare dividends: the yearly dividend divided by the stock price, shown as a percent. A stock at $50 paying $2 a year in dividends has a dividend yield of 4%.
- **Doji** — A single candlestick on a chart where the price opened and closed at almost the same place, leaving a very small body with wicks sticking out. It suggests buyers and sellers are evenly matched and undecided.
- **Dollar index (DXY)** — An index measuring the US dollar's value against a basket of other major currencies. A rising dollar index can pressure company profits from overseas sales and often weighs on gold and other commodities.
- **Dollar-cost averaging** — Investing the same amount of money on a regular schedule, no matter the price — for example, $100 into an index fund every payday. You automatically buy more shares when prices are low and fewer when prices are high.
- **DOM (depth of market)** — A live display, common in futures, showing the stack of waiting buy and sell orders at each price above and below the current one. It shows orders, not intentions — big orders can be pulled in an instant, and the DOM never shows what price will do next.
- **Double bottom** — A chart pattern shaped like a W, where price fell to a low, bounced, and fell to about the same low again before rising. Some traders read it as a possible sign a downtrend is ending, but it is never a guarantee.
- **Double top** — A chart pattern shaped like an M, where price rose to a high, pulled back, and rose to about the same high again before falling. Some traders read it as a possible sign an uptrend is ending, but it is never a guarantee.
- **Dow Jones Industrial Average** — A famous index that tracks 30 very large, well-known US companies, such as Apple and Walmart. When news reports say "the Dow rose 200 points," this is the index they mean.
- **Downside** — How much you could lose if a trade goes wrong. If you buy a stock at $40 and it could realistically fall to $30, your downside is about $10 a share.
- **Downtrend** — A stretch where a price keeps making lower highs and lower lows, like a staircase going down. The general direction is down even though there are small bounces along the way.
- **Drawdown** — The drop from a high point down to a low point, usually measured in your account or in a stock's price. If your account falls from $10,000 to $8,000, you are in a 20% drawdown.
- **Due diligence** — Doing your homework before putting money into something: reading about the company, checking its finances, and understanding the risks. Never skip it just because someone online is excited.

E

- **E-mini futures** — Smaller, electronically traded futures contracts on indexes, like the ES, which tracks the S&P 500. Even smaller "micro" versions, like the MES, exist so beginners can trade with less money at risk per point.
- **Earnings** — A company's profit for a period of time, usually reported every three months. If a company brought in $1 billion and spent $800 million, its earnings are $200 million.
- **Earnings guidance** — A company's own forecast for how it expects to do in the coming months, given when it reports earnings. Stocks often move sharply when a company raises or lowers its guidance.
- **Earnings per share** — A company's profit divided by its number of shares, written as EPS. If a company earned $10 million and has 5 million shares, its EPS is $2 per share.
- **Earnings report** — The official update a company publishes every three months showing its sales, profit, and outlook. Stock prices often jump or drop right after it comes out.
- **Earnings season** — The few weeks, roughly in January, April, July, and October, when most big companies release their earnings reports one after another. Markets tend to be extra jumpy during these weeks.
- **Earnings surprise** — The difference between what a company actually earned and what analysts expected it to earn. A big surprise in either direction is a common reason a stock jumps or drops right after an earnings report.
- **Earnings whisper** — An unofficial earnings estimate that circulates among traders, separate from the published analyst consensus. Whispers are rumors by nature — a stock can beat the official estimate and still fall if it misses the whisper.
- **Earnings yield** — Earnings per share divided by the stock price, shown as a percent — the flip side of the P/E ratio. A stock with a P/E of 20 has an earnings yield of 5%, handy for comparing stocks against bond yields.
- **EBITDA** — A measure of a company's operating profit before subtracting interest, taxes, depreciation, and amortization — roughly, what the core business earns. It is not the same as cash flow or true profit, and companies sometimes highlight it to make results look better than they are.
- **Economic calendar** — A schedule listing upcoming economic reports and events, like jobs numbers, inflation reports, and Federal Reserve meetings. Traders watch it because these events can move the whole market.
- **Economic indicator** — A statistic that shows how the economy is doing, such as the unemployment rate or the inflation rate. Investors watch these numbers to guess where the economy and markets may head next.
- **Economic moat** — A lasting advantage that protects a company from competitors, like a famous brand or being the cheapest producer. The term was popularized by investor Warren Buffett.
- **Effective rate** — Short for the effective federal funds rate: the actual average interest rate banks really charged each other for overnight loans, published by the Federal Reserve Bank of New York. It usually sits close to the Federal Reserve's target rate but is the real-world number banks paid.
- **Elasticity (options)** — A measure of how much an option's price moves, in percent, for a 1% move in the stock. Cheap, far out-of-the-money options have very high elasticity, which is why they can double — or lose half their value — on a small stock move.

- **Elliott Wave Theory** — The idea, followed by some chart traders, that prices move in repeating wave-like patterns driven by crowd psychology. It is a theory for reading charts, not a proven rule, and different traders often count the waves differently.
- **EMA ribbon** — A chart display of several exponential moving averages of different lengths fanned out like ribbons. When the ribbon spreads out in order, traders read it as a strong trend; when it twists together, the market is choppy and trendless.
- **End of day** — The close of the regular trading session, 4:00 PM Eastern Time for US stocks. Prices quoted as "closing prices" are from this moment.
- **Engulfing candle** — A candlestick pattern of two candles where the second candle's body completely covers the first one's body. A green candle engulfing a red one after a drop can signal buyers taking over, and the reverse can signal sellers taking over.
- **Enterprise value (EV)** — A measure of what a whole company is worth to a buyer: its market cap plus its debt, minus its cash. It is often a fairer size measure than market cap alone, because a buyer takes on the company's debt but keeps its cash.
- **Entry point** — The price at which you get into a trade. If your plan says to buy a stock when it reaches $75, $75 is your entry point.
- **Equity** — Ownership. Owning stock means owning equity in a company, and the word is also used for the total value of your trading account (your cash plus your positions).
- **Equity curve** — A line graph showing the value of a trading account over time. A healthy equity curve generally climbs, while a jagged one crashing downward shows a strategy that is losing money.
- **Equity risk premium** — The extra return investors expect from stocks, above the safe return on government bonds, as payment for taking stock market risk. If stocks are expected to return 8% and safe bonds pay 4%, the equity risk premium is about 4%.
- **ETF** — Short for exchange-traded fund: a basket holding many stocks or bonds that you can buy and sell as a single ticker, like a stock, all day long. One share of an S&P 500 ETF gives you a tiny piece of all 500 companies at once.
- **ETF premium and discount** — The small gap between an ETF's market price and the actual value of everything it holds. If an ETF trades above the value of its contents it is at a premium, and below it, at a discount; for big popular ETFs the gap is usually tiny.
- **European-style option** — An option that can only be exercised on its expiration day, never before. Many index options work this way — SPX options are European-style and cash-settled.
- **Evening star** — A three-candle pattern at the top of an uptrend: a strong green candle, a small indecisive candle, then a strong red candle. Some traders read it as a possible sign the uptrend is ending, but like all patterns it is a hint, not a promise.
- **Event risk** — The risk that a sudden specific event — an earnings report, a court ruling, an FDA decision, a central bank surprise — gaps a price before you can react. Stops do not protect against gaps, which is why position size matters most around known events.
- **Ex-dividend date** — The first day a stock trades without the upcoming dividend attached. To receive a dividend, you must own the stock before this date; if you buy on or after it, the seller gets the payment instead.
- **Exchange** — The marketplace where trades happen, such as the New York Stock Exchange (NYSE) or the Nasdaq. Think of it as the official store where stocks are bought and sold.

- **Exchange rate** — How much one currency is worth in terms of another. If the EUR/USD rate is 1.10, one euro is worth $1.10.
- **Execution quality** — How good your fills actually are: how close your price was to the market price when you clicked, and how fast and completely the order filled. Poor execution quietly eats profits, especially in fast-moving or thinly traded names.
- **Exercise** — Using the right an option gives you. Exercising a call means buying 100 shares at the strike price; exercising a put means selling 100 shares at the strike price.
- **Exercise price** — Another name for an option's strike price: the set price at which the option lets you buy or sell the stock. A $150 exercise price means the trade happens at $150, no matter where the stock actually trades.
- **Exhaustion gap** — A gap in the direction of a trend that appears near the trend's end, after a long run, often on very heavy volume as the last buyers or sellers pile in. When a stock gaps up one final time and then stalls, traders suspect the move is exhausted.
- **Exit point** — The price at which you plan to get out of a trade, either to take a profit or to cut a loss. Deciding your exit point before you enter is a core habit of careful traders.
- **Expected move** — The amount a stock is predicted to move over a set time, worked out from its options prices (implied volatility). If a $100 stock has an expected move of $5 into earnings, the options market is pricing a finish roughly between $95 and $105 — a forecast, not a boundary.
- **Expense ratio** — The yearly fee a fund charges, shown as a percent of your money. An expense ratio of 0.10% means you pay $10 a year for every $10,000 invested in that fund.
- **Expiration date** — The last day an options contract exists. After this date the option is gone — if it has value it is typically settled automatically, and if not, it expires worthless.
- **Expiration pinning** — The tendency of a stock to drift toward a heavily traded option strike price as expiration nears, as option sellers and market makers adjust their hedges. It is a tendency, not a magnet, and news can overwhelm it at any time.
- **Extended-hours trading** — Trading that happens before the regular 9:30 AM open (pre-market) or after the 4:00 PM close (after-hours). Fewer people are trading then, so prices can swing more and orders can fill at worse prices.
- **Extrinsic value** — The part of an option's price that is above its built-in (intrinsic) value — you are paying for time left and expected movement. This is the part that melts away as expiration approaches.

F

- **Face value** — The amount a bond promises to pay back when it ends (matures), usually $1,000 per bond. It is also called par value.
- **Fade** — Trading slang for betting against a move: selling into a sharp rally or buying into a sharp drop, expecting it to reverse. Fading a strong trend is one of the fastest ways beginners get run over — the move usually has more room than it looks.
- **Fair value (futures)** — The theoretical price a futures contract should trade at, based on the underlying index plus interest costs minus dividends. When futures trade above or below fair value before the open, it hints at how the cash market may open.
- **Falling knife** — Slang for a stock dropping fast and hard. "Catching a falling knife" means buying it while it is still plunging, which often means catching more losses — traders prefer to let it hit the floor and stop

bouncing first.

- **Fear and Greed Index** — A 0-to-100 gauge published by CNN that blends several market measures into one mood reading, from extreme fear to extreme greed. It describes the crowd's mood; it does not predict what happens next.
- **Fed pivot** — Slang for the Federal Reserve switching direction on interest rates, such as from raising rates to cutting them. Markets often rally on pivot hopes, and disappointments when a pivot does not come can be sharp.
- **Federal funds rate** — The target interest rate, set by the Federal Reserve, that banks charge each other for overnight loans. It influences almost every other interest rate, from credit cards to mortgages.
- **Federal Reserve (Fed)** — The central bank of the United States. Its job is to keep prices stable and employment strong, and its decisions on interest rates move the entire stock market.
- **Fibonacci extension** — A chart tool that projects where a price might travel beyond its previous high or low, using ratios like 127.2% and 161.8% of an earlier move. Traders use the levels as possible targets or pause points, but they are conventions, not guarantees.
- **Fibonacci retracement** — A chart tool that draws lines at set percentages (like 38.2%, 50%, and 61.8%) of a price move, marking spots where a pullback might pause. Many traders watch these levels, though they are guidelines, not guarantees.
- **Fill** — The completion of your order — the moment your buy or sell actually happens. A "fill price" is the exact price you got, which may differ slightly from the price you saw when you clicked.
- **Fill or kill (FOK)** — An order instruction meaning: fill the entire order right now at my price, or cancel it completely — no partial fills, no waiting. It is mostly used by fast or institutional traders.
- **Financial statement** — One of a company's official report cards: the income statement (sales and profit), the balance sheet (what it owns and owes), and the cash flow statement (cash in and out). Public companies must publish these every quarter.
- **Fiscal policy** — Government decisions about taxes and spending, made by Congress and the President, as opposed to monetary policy, which is the Federal Reserve's interest-rate decisions. Big tax or spending changes can move markets and whole industries.
- **Fiscal year** — A company's 12-month accounting year, which does not have to match the calendar year. A retailer might end its fiscal year in January, right after the holiday season.
- **Fixed income** — Investments that pay a set, predictable stream of interest, mainly bonds. People call them fixed income because the payments are scheduled in advance, unlike stock dividends.
- **Flag pattern** — A short, tight pause on a chart that slopes slightly against a strong move, shaped like a small flag after a steep "flagpole." It often continues in the direction of the original move, but failed flags reverse hard.
- **Flash crash** — A sudden, severe market drop that reverses within minutes. In the famous 2010 flash crash, the Dow fell almost 1,000 points in minutes and then recovered most of it the same day.
- **Flat** — Holding no position at all in something. If you sell all your shares of a stock, you are flat that stock — no risk, no reward from it until you buy again.
- **Float** — The number of a company's shares actually available for the public to trade. A stock with a small float (few shares available) can jump or crash quickly because even modest buying or selling overwhelms it.

- **Float rotation** — When trading volume in a small-float stock reaches or exceeds the entire float in a single day, meaning the available shares have effectively changed hands once over. It signals extreme speculative frenzy and usually comes with violent price swings.
- **FOMC** — Short for Federal Open Market Committee, the group inside the Federal Reserve that votes on interest rates. It meets eight times a year, and its announcements are some of the most market-moving events on the calendar.
- **FOMO** — Short for "fear of missing out": the urge to buy something just because its price is running up and everyone is talking about it. FOMO is a feeling, not a strategy, and it leads many beginners to buy at the worst moment.
- **Footprint chart** — An advanced chart, used mostly in futures, that breaks every candle into the actual buy and sell volume traded at each price inside it. It shows real orders and prints, not intent or the future — no chart can show what price will do next.
- **Forex** — Short for foreign exchange: the global market where currencies are traded in pairs, like euros against US dollars (EUR/USD). It is the largest market in the world and trades around the clock on weekdays.
- **Forward P/E** — A P/E ratio calculated with analysts' expected earnings for the next 12 months instead of past earnings. It looks kinder when earnings are expected to grow, but it rests on forecasts that can be wrong.
- **Fractional share** — A piece of a share, less than one whole share. If a stock costs $400 and you invest $50, you can own 0.125 of a share instead of nothing.
- **Free cash flow** — The cash a company has left after paying its operating costs and buying the equipment it needs to keep running. It is the money truly available for dividends, buybacks, debt payments, or growth, and many investors value it above reported profit.
- **Freeriding** — A cash-account violation: buying a stock with money that has not settled yet and selling it before that money arrives. Doing it can get your account restricted, so wait for funds to settle.
- **Front month** — The futures contract that expires soonest and is usually the most actively traded. When traders say "the ES front month," they mean the nearest upcoming ES contract.
- **Front-running** — When a broker or insider trades ahead of a big client order they know is coming, profiting from the price move that order will cause. It is illegal and unethical.
- **Fund** — A pool of money collected from many people and invested together, such as a mutual fund or an ETF. Instead of picking one stock, your money is spread across everything the fund holds.
- **Fundamental analysis** — Judging an investment by the health of the business itself: its sales, profit, debt, and competition, to decide what it is really worth. It is the opposite of technical analysis, which studies price charts.
- **Funding rate** — In crypto perpetual futures, a small periodic payment between buyers and sellers that keeps the contract's price close to the spot price. When the rate is very positive, buyers are crowded and pay sellers — a sign of speculation running hot.
- **Futures** — Contracts where two sides agree to trade something (like oil, gold, or a stock index) at a set price on a future date, and both sides must honor the deal. Futures use leverage, so gains and losses are magnified, and beginners can lose money very fast.
- **Futures commission merchant (FCM)** — The regulated firm that holds futures traders' accounts and handles their orders and margin — the futures world's version of a broker. Your futures broker must be

registered, and you can verify it with regulators before depositing money.

- **Futures contract** — One single futures agreement. Each one has a standard size and dollar value per point — for example, each point the ES futures contract moves is worth $50.
- **Futures expiration** — The last day a futures contract can trade before it ends. Traders who do not want delivery close the contract or roll it into the next month's contract before this date.
- **Futures roll yield** — The gain or loss created when a futures position is rolled from an expiring contract into the next one, depending on whether the next contract is cheaper or more expensive. When later contracts cost more (contango), long-term holders of futures-based products steadily lose a little on every roll.
- **Futures spread** — A position holding two related futures contracts at once, such as long one month and short another (a calendar spread), to bet on the price difference between them rather than on overall direction. Spreads usually move less violently than outright positions, but they can still lose money.

G

- **Gain** — A profit: you sold something for more than you paid for it. Buying at $30 and selling at $38 is a gain of $8 a share.
- **Gamma** — An options number that shows how fast delta itself changes when the stock moves. High gamma means your option's delta will swing quickly, which makes the position more sensitive and harder to predict near expiration.
- **Gamma exposure (GEX)** — An estimate of how much hedging market makers must do, across all options on a stock or index, as the price moves — calculated from options gamma and open interest. Large positive GEX tends to dampen price moves, while negative GEX can amplify them; it is an estimate and a gauge, not a signal or a guarantee.
- **Gamma flip** — The price level where estimated dealer gamma exposure switches from positive to negative (or back). Traders watch it because markets often behave calmer above the flip and wilder below it — a tendency, not a rule.
- **Gamma scalping** — An advanced options strategy where a trader holding options repeatedly buys and sells shares to stay delta neutral, harvesting small stock swings along the way. It demands constant attention and low trading costs, and it is not a beginner strategy.
- **Gamma squeeze** — A sharp price spike driven by options hedging: as a stock rises, market makers who sold call options must buy shares to hedge, pushing the price higher still and forcing more buying. Gamma squeezes can reverse just as violently when the hedging unwinds.
- **Gap** — An empty space on a chart where the price opens much higher or lower than where it closed the day before, skipping the prices in between. Earnings news often causes gaps — a stock closing at $50 might open the next morning at $56.
- **Gap and go** — A day-trading strategy that trades stocks which gap up in the morning and keep running on heavy volume. It is fast and unforgiving — late entries chase extended prices, and failed gap-and-go trades fall quickly.
- **Gap fill** — When a stock's price later moves back across a gap, covering the empty space on the chart. If a stock gaps up from $50 to $56 and later falls back to $50, the gap is filled.
- **Gap risk** — The risk that a price jumps straight past your stop or exit price overnight or on news, so you get out much worse than planned. Gap risk is the main reason a stop loss is a plan, not a guarantee, and

why size matters.

- **GARP (growth at a reasonable price)** — An investing approach that looks for growing companies whose stocks are not outrageously priced — a middle path between pure growth investing and pure value investing. The investor Peter Lynch made the style famous.
- **General obligation bond** — A municipal bond backed by the full taxing power of the city, county, or state that issued it. They are generally considered steadier than bonds backed by a single project's revenue, though no bond is risk-free.
- **Global macro** — An investing strategy that bets on big worldwide themes — interest rates, currencies, commodities, and country economies — across many markets at once. It is practiced mostly by large funds and demands deep economic knowledge.
- **Globex** — The CME Group's electronic trading platform, where most futures trades happen. It is why futures trade nearly around the clock, from Sunday evening through Friday afternoon, US Eastern Time.
- **Going long** — Buying something because you expect its price to rise. If you own shares of a stock hoping they go up, you are long that stock — the most basic position there is.
- **Going private** — When a public company's shares are bought out and removed from the stock exchange, so the public can no longer trade them. Shareholders are typically paid a set cash price per share when the deal closes.
- **Going public** — When a private company sells shares to the general public for the first time so anyone can buy them on an exchange. This first sale is called an IPO, an initial public offering.
- **Going short** — Selling something first, planning to buy it back cheaper later, because you expect the price to fall. It is risky: a stock you short can keep rising, so your losses can grow quickly and, with stocks, have no fixed limit.
- **Golden cross** — A chart signal where a stock's 50-day average price crosses above its 200-day average price, after the stock has been rising. Some traders treat it as a hopeful long-term sign, but it is not a guarantee of future gains.
- **Good 'til canceled (GTC)** — An order that stays active until it fills or you cancel it, instead of expiring at the end of the day. A GTC sell order at $60 will sit waiting even if the stock takes two weeks to get there.
- **Good faith deposit** — A nickname for futures margin: the money you must park in your account to hold a futures contract. It is a deposit showing you can cover losses, not a loan and not the full price of the contract.
- **Good faith violation** — A cash-account violation that happens when you buy a stock with money from a sale that has not settled yet, then sell that new stock before the money settles. Too many of these can get your account restricted for 90 days.
- **Government bond** — A loan you make to the US government, sold as a Treasury bond, note, or bill. These are considered among the safest investments in the world and pay you interest.
- **Gravestone doji** — A single candlestick with a long upper wick and its open and close near the bottom, shaped like a gravestone, appearing after a rise. It hints that buyers pushed the price up but sellers dragged it all the way back; traders treat it as a warning sign, not proof of a top.
- **Greeks** — A group of options numbers, named with Greek letters (delta, gamma, theta, vega, and rho), that measure different risks of an option, like how it reacts to price moves, passing time, and volatility. Traders check the Greeks the way a pilot checks dashboard gauges.

- **Gross domestic product (GDP)** — The total dollar value of everything a country produces in a period of time. When GDP grows, the economy is expanding; when it shrinks for two quarters in a row, people often call it a recession.
- **Gross exposure** — The total size of all a trader's or fund's positions added together, longs plus shorts, ignoring offsetting. A fund with $60 million long and $40 million short has $100 million of gross exposure, which shows how much total market risk it carries.
- **Gross margin** — The share of a company's sales left over after paying the direct cost of making its products, shown as a percent. If a company sells $100 of goods that cost $60 to make, its gross margin is 40%.
- **Gross profit** — The same idea as gross margin, but in dollars instead of a percent: sales minus the direct cost of what was sold. $100 in sales minus $60 in product costs equals $40 of gross profit.
- **Growth investing** — A strategy of buying companies expected to grow much faster than average, even if their stocks look expensive today. The bet is that future growth will be worth the high price.
- **Growth stock** — A stock of a company whose sales and profits are growing much faster than average. These companies usually pay no dividend because they reinvest everything into growing, and their prices can swing hard.

H

- **Haircut** — A safety discount a broker or lender applies to the value of your assets when they are used as collateral. Example: a $10,000 stock position with a 25% haircut only counts as $7,500 of borrowing power.
- **Halt** — A temporary pause in trading of a stock, set by the exchange. Halts usually happen when big news is coming out or a price is moving too wildly, and trading restarts a few minutes later.
- **Halving** — In crypto, a scheduled event (Bitcoin's happens about every four years) where the reward paid to miners is cut in half, slowing the creation of new coins. It reduces new supply but does not guarantee the price will rise.
- **Hammer Candle** — A single candle (one bar on a chart) with a long lower tail and a small body near the top. After a fall, it can be an early sign that buyers are stepping in and price may turn up.
- **Hard Assets** — Physical things with real-world value, like real estate, gold, oil, and equipment. People buy them partly because they tend to hold value when paper money loses buying power to inflation.
- **Hard Stop** — A real stop order you place with your broker that sells automatically if price hits your level. It is "hard" because the broker's computer does it for you, even if you are not watching.
- **Hard to Borrow** — A label for a stock that is difficult or expensive to borrow for short selling (betting it will fall). If a stock is hard to borrow, your broker may charge extra fees or block the short sale entirely.
- **Head and Shoulders** — A chart pattern shaped like a head between two shoulders, made of three peaks where the middle peak is the highest. Traders watch it as a possible sign that an uptrend is tiring out and may reverse down.
- **Head Fake** — A quick move in one direction that suddenly reverses, trapping traders who chased it. Example: a stock pops above resistance, buyers pile in, and it immediately dumps back below — the "breakout" was a fake.
- **Hedge** — A second position you take to protect your main position, like insurance. Example: if you own a stock and fear a drop, you might buy a put option so a fall hurts less.
- **Hedge Fund** — A private investment fund for wealthier investors that can use advanced strategies like short selling and leverage. Hedge funds have looser rules than the mutual funds everyday investors buy.
- **Hedge Ratio** — How much of a hedge you need to offset a position's risk, often figured from delta. Example: to hedge 100 shares of stock (delta 100), you might buy 2 put contracts with a delta of −0.50 each (2 × 100 × −0.50 = −100).
- **Hedging Cost** — What you pay for protection, like the premium on a put option bought as insurance. Hedging always costs something, so it lowers your profit when things go well — that is the trade-off for sleeping at night.
- **Heikin-Ashi** — A special kind of candlestick chart that averages the price data to smooth out noise and make trends easier to see. Because the candles are averaged, they do not show the exact real prices — never use them to judge an exact entry or exit price.
- **High Beta** — Describes a stock that moves more than the overall market, both up and down. A stock with a beta of 2 tends to move about twice as much as the S&P 500, so it is riskier and jumpier.
- **High of Day** — The highest price a stock or contract has traded at so far today, often shortened to HOD. Traders watch it because price pushing above it can signal strength.
- **High-Frequency Trading (HFT)** — Trading by computers that place huge numbers of orders in tiny fractions of a second, profiting from tiny price differences. Retail traders cannot compete on speed,

which is one more reason not to chase every small wiggle.

- **High-Yield Bond** — A bond from a company with a weaker credit rating, nicknamed a junk bond. It pays higher interest because there is a higher chance the company fails to pay you back.
- **Higher High** — A price peak that is higher than the peak before it. A series of higher highs (with higher lows) is the classic picture of an uptrend.
- **Higher Low** — A price dip that stops at a higher level than the dip before it. It suggests buyers are stepping in earlier each time, which is a sign of an uptrend.
- **Higher Time Frame** — A chart that shows a longer stretch of time per candle, like the daily or weekly chart instead of the 1-minute chart. Big-picture charts show the main trend that smaller charts must fit inside.
- **Historical Volatility** — A measure of how much a stock's price actually moved in the past, based on real price history. It looks backward, unlike implied volatility, which looks forward.
- **Hold** — Keeping a position you already own instead of selling it. If you bought shares and simply keep them while you wait, you are holding.
- **Holding Period** — How long you own something before you sell it. For taxes, holding a stock more than one year usually gets a lower tax rate on profits than selling sooner.
- **Horizontal Level** — A price drawn as a flat line across a chart where price has repeatedly stopped, bounced, or reversed before. Traders treat these levels as likely turning points in the future.
- **Horizontal Spread** — Another name for a calendar spread: options with the same strike price but different expiration dates. It profits mainly from the nearer option losing time value faster than the farther one.
- **Hot Money** — Money that moves in and out of an investment very quickly, chasing fast gains. Hot money rushes in when something is exciting and rushes out just as fast, making prices jumpy.
- **Hourly Chart** — A price chart where each candle covers one hour of trading. Traders use it to see the trend inside the day without the noise of very small time frames.
- **House Money Effect** — The trap of taking bigger, careless risks after a win because the profit "feels" like the market's money instead of yours. It is always your money — protect winnings with the same rules as your starting funds.
- **Hybrid Security** — An investment that mixes features of two types, like a convertible bond that pays interest like a bond but can turn into stock. The mix can be useful, but read the fine print — hybrids come with extra rules and risks.

I

- **Immediate-or-Cancel (IOC)** — An order instruction meaning: fill whatever you can right now and cancel the rest. If 30 of your 100 shares fill instantly, the other 70 are cancelled instead of waiting.
- **Implied Move** — The amount the options market expects a stock to move up or down by a certain date, shown as a dollar amount or a percentage. Traders check it before earnings to see how big a swing is already "priced in."
- **Implied Volatility** — Often shortened to IV, this is how much movement the market expects from a stock in the future, built into option prices. High IV makes options expensive; low IV makes them cheap.
- **In the Money** — Describes an option that already has real value if used right now. Example: a call option with a $50 strike is in the money when the stock trades at $55, because you could buy at $50 and the

stock is worth $55.

- **Income Investing** — A strategy focused on regular cash payments — dividends from stocks and interest from bonds — instead of price growth alone. It suits patient investors; the payments are never guaranteed and can be cut.
- **Income Statement** — A company report showing how much money it made and spent over a period, ending with its profit or loss. It answers the basic question: did the business actually make money?
- **Index** — A number that tracks the combined price movement of a group of stocks, like the S&P 500 (500 large companies). You cannot buy an index itself; you trade funds, futures, or options based on it.
- **Index Fund** — A fund that simply copies an index, holding the same stocks in the same proportions. Because no manager is picking stocks, fees are usually very low.
- **Index Futures** — Futures contracts based on a stock index, such as the S&P 500 futures (ES). Traders use them to bet on, or protect against, the whole market moving up or down.
- **Index Option** — An option based on an index instead of a single stock, like SPX options. Index options are settled in cash (no shares change hands) and SPX options can only be exercised at expiration.
- **Index Rebalancing** — When an index like the S&P 500 updates its list of companies, adding some and removing others on a set schedule. Funds that copy the index must buy and sell to match, which can briefly push prices of the added and removed stocks around.
- **Indicator** — A tool drawn on or under a chart that does math on price or volume to help you judge the trend or momentum. Examples include moving averages, MACD, and RSI; indicators suggest, they never guarantee.
- **Inflation** — The general rise in prices over time, which means each dollar buys a little less than before. If inflation is 3%, something that cost $100 last year costs about $103 now.
- **Inflation Hedge** — An investment people hold hoping it keeps its value when inflation eats away at cash, such as gold, real estate, or certain bonds. No hedge is perfect — an asset people call a hedge can still fall in price.
- **Initial Coin Offering (ICO)** — When a new crypto project sells its brand-new tokens to the public to raise money, similar in spirit to an IPO for stocks. ICOs are far less regulated than stock offerings and have been a common vehicle for scams — treat them as extremely risky.
- **Initial Margin** — The amount of money you must put up to open a leveraged position. For stocks it is usually 50% of the purchase; for futures it is a smaller good-faith deposit set by the exchange.
- **Initial Public Offering (IPO)** — The first time a private company sells shares to the public and starts trading on an exchange. After the IPO, anyone with a brokerage account can buy the stock.
- **Inside Bar** — A candle whose entire high-to-low range fits inside the candle before it, also called a "1" in The Strat system. It shows price pausing and coiling, and traders watch for a break out of it.
- **Insider Trading** — Buying or selling a stock using secret, important information the public does not have yet. It is illegal, and company executives trading on inside knowledge can face heavy fines and prison.
- **Institutional Investor** — A big organization that invests huge amounts of money, like a pension fund, bank, or hedge fund. Their large trades can move prices, so small traders watch what they do.
- **Institutional Ownership** — The percentage of a company's shares held by big organizations like pension funds, mutual funds, and hedge funds. Heavy institutional buying or selling can move a stock's price a lot because their orders are so large.

- **Interest Rate** — The price of borrowing money, charged as a percentage per year. When the Federal Reserve raises or lowers rates, it affects loans, savings accounts, and usually stock prices too.
- **Interest Rate Sensitivity** — How much an investment's price moves when interest rates change. Long-term bonds and growth stocks tend to be highly sensitive: when rates rise, their prices often fall the most.
- **Intraday** — Anything that happens within a single trading day. An intraday trader (day trader) opens and closes all positions before the market closes and holds nothing overnight.
- **Intraday Margin** — A lower deposit your broker may require for futures positions opened and closed within the same day, instead of held overnight. The smaller deposit means bigger effective leverage — a small move against you can still produce a large loss fast.
- **Intrinsic Value** — The built-in, real value of an option if it were used right now. A call with a $50 strike has $5 of intrinsic value when the stock is $55; anything above that in the option's price is time value.
- **Inventory** — The positions a trader or market maker is currently holding, the way a store holds goods on its shelves. Holding a lot of inventory overnight means carrying risk while the market is closed and news can hit.
- **Inverse ETF** — A fund designed to go up when its index goes down, and down when the index goes up. It lets you profit from a falling market without short selling, but it is built for short-term trades, not long holds.
- **Investing** — Buying something and holding it for months or years, expecting it to grow in value over time. It is the slower, longer-term cousin of trading.
- **Investment Grade** — A quality rating for bonds meaning the borrower is considered fairly safe and likely to repay. Bonds below investment grade are called high-yield or junk bonds.
- **Investor** — Anyone who puts money into something hoping it grows. You become an investor the moment you buy your first share, fund, or bond.
- **Iron Butterfly** — An options strategy using four options that profits most if the stock lands exactly on one middle price at expiration. Risk and reward are both capped, and it is an advanced strategy.
- **Iron Condor** — An options strategy that sells both a call spread above the price and a put spread below it, collecting premium. You profit if the stock stays inside a range, and your maximum loss is capped and known up front.
- **Island Reversal** — A chart pattern where price gaps one way, trades for a few sessions, then gaps back the other way, leaving a small "island" of candles separated by gaps on both sides. It can mark a sharp change in direction, but no pattern is a guarantee.
- **IV Crush** — The sharp drop in implied volatility right after a big expected event, like an earnings report, passes. Option prices can fall hard from IV crush even when the stock moves the way you predicted.
- **IV Percentile** — A measure comparing today's implied volatility to its own range over the past year, shown as a percentage. Example: an IV percentile of 90% means IV has been lower than today on about 90% of the past year's days — options are expensive compared to their recent norm.
- **IV Rank** — A number from 0 to 100 showing where today's implied volatility sits compared with its own range over the past year. Near 100 means options are unusually expensive versus their own history; near 0 means unusually cheap.
- **IV Skew** — The pattern where options at different strike prices carry different implied volatilities — for example, puts below the current price usually cost more (in IV terms) than calls above it. It shows

traders pay up for crash protection.

J

- **January Barometer** — An old market saying that the stock market's performance in January hints at how the rest of the year will go. It is a fun piece of folklore, not a reliable rule — never trade real money on a saying.
- **January Effect** — The idea that stock prices, especially smaller stocks, tend to rise more in January than in other months. It is a historical pattern some traders watch, not a promise it will happen.
- **Jobless Claims** — A weekly government report counting how many people filed for unemployment benefits for the first time. Rising claims can signal a weakening job market; it is a smaller, more frequent cousin of the monthly Jobs Report.
- **Jobs Report** — A monthly government report on how many jobs were added or lost and the unemployment rate, usually released on the first Friday of the month. It often moves the whole market within seconds because it hints at the economy's health.
- **Joint Account** — A brokerage account owned by two people, such as spouses, where both can deposit money and place trades. Either owner can usually act on the account without the other's permission.
- **Joint Venture** — When two or more companies team up on one specific project while staying separate companies. News of a joint venture can move both companies' stocks, up or down.
- **Journal** — A written record of every trade you take, including why you entered, where you exited, and what you learned. Reviewing your journal is how traders find and fix their repeated mistakes.
- **Jumbo Loan** — A home loan too large for the standard limits set for government-backed mortgages, so it usually carries stricter approval rules and sometimes a higher interest rate. It matters to real-estate investors borrowing big amounts.
- **Junior Security** — A stock or bond that stands behind others in line to get paid if a company is shut down and sold off. Junior holders get paid last, so they take more risk — and demand higher potential reward for it.
- **Junk Bond** — A nickname for a high-yield bond from a company with a weak credit rating. It pays high interest to make up for the real risk the company might not pay you back.
- **Junk Bond Spread** — The extra interest (yield) junk bonds pay compared to safe government bonds, measured as a difference in percentage points. When this spread widens sharply, it often means investors are scared about the economy.

K

- **Kagi Chart** — A Japanese chart style that draws lines changing direction only when price moves a set amount, ignoring time completely. It filters small noise to highlight trend changes, but it is uncommon on most trading platforms.
- **Keltner Channels** — An indicator that draws two bands above and below a moving average, spaced by how much price typically moves. Price bouncing between or breaking out of the bands helps traders judge trends and stretched moves.
- **Key Level** — An important price where traders expect a reaction, such as a past high, a past low, or a round number like $500. Plans are often built around key levels: buy near support, sell or protect near resistance.

- **Key Reversal** — A session where price first makes a strong new high (or low) and then closes in the opposite direction, near the other end of its range. Traders watch it as a possible turning point, but one candle alone proves nothing — wait for confirmation.
- **Kicker Pattern** — A two-candle pattern where the second candle gaps hard against the first candle's direction, showing a sudden shift in who is in control. It is considered a strong reversal signal, but gaps against you can also mean fast losses if you are on the wrong side.
- **Knock-Out Option** — An option that automatically becomes worthless if the underlying price touches a set barrier level. They are cheaper than regular options for a reason — one touch of the barrier and your entire premium is gone.
- **Know Your Customer (KYC)** — The legal rule that brokers must verify who you are before opening your account. That is why signing up asks for your ID, address, and Social Security number.

L

- **Laddering** — Buying investments with different maturity dates or price levels, spread out like rungs of a ladder — for example, bonds maturing in 1, 3, 5, and 10 years. It balances steady income with flexibility, instead of betting everything on one date.
- **Lagging Indicator** — A tool built from past prices that confirms a trend after it has already started, like most moving averages. It helps you verify what happened, but by design it will always be a little late.
- **Lambda** — An options Greek that measures leverage: roughly how many percent an option's price should move for a 1% move in the stock. A high lambda means explosive percentage swings in both directions — exciting and dangerous.
- **Large Cap** — A big company, usually worth $10 billion or more, like Apple or Walmart. "Cap" is short for market capitalization, the total value of all its shares.
- **Last Price** — The most recent price at which a stock or contract actually traded. It is the number most apps show in big digits next to the ticker.
- **Last Trading Day** — The final day a futures or options contract can be traded before it expires. After this day the contract is settled, so traders must close or roll their position before it.
- **Leading Indicator** — A tool or data series that tries to signal a change before it fully happens, like momentum oscillators or weekly jobless claims for the economy. "Tries" is the key word — leading indicators also give plenty of false alarms.
- **Letter Stock** — Shares that come with restrictions — they cannot be freely sold to the public right away, often because they were issued privately. Restricted shares you cannot sell are riskier than they look on paper.
- **Level 2** — A data feed showing the stack of waiting buy and sell orders at many prices, not just the best one. It helps traders see where large orders are sitting, though reading it well takes practice.
- **Leverage** — Using borrowed power so a small amount of your money controls a much bigger position. Leverage multiplies gains and losses equally — a 10-to-1 leveraged position loses 10% of your money on just a 1% move against you.
- **Leveraged Buyout (LBO)** — When a company is bought mostly with borrowed money, using the target company's own assets and cash flow to back the loan. After an LBO, the acquired company's stock usually stops trading publicly.

- **Leveraged ETF** — A fund that uses borrowing and derivatives to multiply an index's daily move, aiming for 2 or 3 times the return. Because it resets daily, holding it for weeks can produce surprising results, and it is risky for beginners.
- **Limit Move** — The maximum amount a futures price is allowed to move in one session before the exchange pauses or restricts trading. It is a safety brake against panic moves.
- **Limit Order** — An order to buy or sell only at your chosen price or better. A buy limit at $50 means you pay $50 or less — but if price never reaches $50, your order simply never fills.
- **Limit Price** — The exact price you set on a limit order; the worst price you are willing to accept. For a buy it is your ceiling, and for a sell it is your floor.
- **Limit Up-Limit Down (LULD)** — A stock-market rule that pauses trading in a stock for a few minutes when its price shoots outside a set percentage band in a short time. It is a speed bump against wild, disorderly moves — different from the daily price limits used in futures.
- **Line Chart** — The simplest chart type: one line connecting the closing prices over time. It hides the highs and lows inside each period, so it is good for a clean big-picture view but poor for planning entries and exits.
- **Liquidation** — Selling a position to turn it back into cash, whether by your choice or by force. If your margin account falls too far, your broker can liquidate (force-sell) your positions without asking.
- **Liquidity** — How easily something can be bought or sold without moving its price much. A heavily traded stock like Apple is very liquid; a rarely traded stock can be hard to exit at a fair price.
- **Liquidity Premium** — The extra return investors demand for locking money into something hard to sell quickly, like a small company's stock or real estate. If you may need your cash fast, that extra return may not be worth being stuck.
- **Liquidity Provider** — A firm that constantly posts prices to buy and sell, making it easy for everyone else to trade. Their activity keeps markets smooth and bid-ask spreads small.
- **Liquidity Risk** — The danger that you cannot sell something quickly at a fair price when you want out. It shows up in thinly traded stocks and options, where you may have to accept a much worse price.
- **Liquidity Trap** — An economics situation where interest rates are already near zero and people hoard cash instead of spending, so the central bank's usual tools stop working well. It describes a stuck economy, not a single stock or trade.
- **Listed Security** — A stock or fund officially traded on a major exchange like the NYSE or Nasdaq, meeting that exchange's rules. The opposite is "over-the-counter" (OTC) trading, where standards are looser and information is thinner — extra caution is required there.
- **Loan-to-Value (LTV)** — A lender's measure comparing the loan amount to the property's value, as a percentage. Example: a $180,000 loan on a $200,000 home is 90% LTV — a high LTV means a bigger loan relative to the cushion, and more risk for everyone.
- **Lock Limit** — In futures, when price is stuck at its daily limit and almost no trading can happen beyond that price. Being locked means you may be unable to exit a losing position — one of the unique dangers of futures.
- **Long** — Owning something because you expect its price to rise. If you buy 10 shares of a stock, you are "long 10 shares," and you profit when the price goes up.
- **Long-Term Capital Gain** — Profit from selling something you held for more than one year. In the US it is usually taxed at a lower rate than short-term profits — tax rules change, so check with a tax

professional.

- **Long-Term Investing** — Buying and holding for years through ups and downs instead of reacting to daily moves. Retirement accounts are the most common example.
- **Loss** — What happens when you sell something for less than you paid, or a position moves against you. Small, planned losses are a normal cost of trading; the goal is keeping them small.
- **Loss Aversion** — The well-known mental bias where losing money hurts about twice as much as gaining the same amount feels good. It pushes traders to hold losers too long and sell winners too early — a written plan is the cure.
- **Loss Harvesting** — Short for tax-loss harvesting: selling an investment at a loss on purpose to use that loss to lower your tax bill, sometimes buying a similar (but not identical) replacement. Rules like the wash sale rule limit how this works — this is education only, not tax advice.
- **Loss Limit** — A personal rule for the most you will lose before stopping, such as "I stop trading after losing $100 in a day." It protects your account on days when nothing is working.
- **Lot Size** — The standard amount of something in one trade. One stock options contract covers 100 shares, and one futures contract covers a set amount defined by the exchange.
- **Low Float** — A stock with only a small number of shares available for the public to trade. With so few shares around, even modest buying or selling can send the price swinging violently — exciting charts, real danger.
- **Low of Day** — The lowest price a stock or contract has traded at so far today, often shortened to LOD. Traders watch it because dropping below it can signal weakness.
- **Lower High** — A price peak that is lower than the peak before it. Combined with lower lows, it is the classic picture of a downtrend.
- **Lower Low** — A price dip that falls lower than the dip before it. It shows sellers are pushing price to new lows, a sign of a downtrend.

M

- **MACD** — An indicator (Moving Average Convergence Divergence) that compares two moving averages to show momentum — whether a trend is speeding up or slowing down. Traders watch its lines cross as a possible signal that momentum is changing.
- **Maintenance Margin** — The minimum amount of money that must stay in your margin account while a position is open. If your account drops below it, you get a margin call.
- **Margin** — Borrowed money or buying power from your broker that lets you control more than your cash alone could. For futures, margin means something different: a good-faith deposit you post to hold a contract, not a loan.
- **Margin Account** — A brokerage account that lets you borrow money from the broker, use unsettled funds, and sell short. It offers flexibility but charges interest on loans and carries extra rules and risks.
- **Margin Call** — A demand from your broker to add money or close positions because your account fell below the required minimum. If you do not act, the broker can sell your positions for you.
- **Margin Debt** — The total amount of money investors have borrowed from brokers to buy investments, or your own borrowed balance in a margin account. Borrowed money magnifies losses exactly as it magnifies gains, and the interest is a constant drag.

- **Margin of Safety** — An investing principle: only buy when the price is well below what you believe the business is truly worth, leaving room for being wrong. Example: if you estimate a company is worth $80 a share, buying at $55 gives you a margin of safety.
- **Mark Price** — The fair, calculated value used for a futures contract at any moment, based on the underlying market. Brokers use it to figure your profit, loss, and margin fairly.
- **Mark to Market** — The daily process of settling futures accounts: each day, gains are credited and losses are debited in cash based on the closing price. Your futures profit and loss becomes real money in the account every day.
- **Mark-to-Market Election (Section 475)** — A tax election some very active traders make so all their positions are treated as sold at year-end for tax purposes, which also removes the wash sale rule from their trading. It has strict deadlines and rules — education only; this is not tax advice, so talk to a tax professional.
- **Market Breadth** — A measure of how many stocks are rising versus falling across the whole market. Strong breadth means most stocks are joining a move; weak breadth means only a few are carrying it.
- **Market Cap** — The total value of a company in the stock market: share price multiplied by the number of shares that exist. A $50 stock with 100 million shares has a market cap of $5 billion.
- **Market Crash** — A sudden, steep fall in stock prices across the whole market, like the drops in 2008 and March 2020. Crashes are frightening but have historically been followed by recoveries over time.
- **Market Cycle** — The repeating loop markets move through over time: rising trends, topping, falling trends, and bottoming, driven by the economy and investor mood. Knowing which phase you are in helps, but no one can time the turns exactly.
- **Market Depth** — The full picture of waiting buy and sell orders at many price levels, shown in Level 2 data. More depth means bigger orders can trade without moving the price much.
- **Market Hours** — The times a market is open. US stock exchanges trade 9:30 AM to 4:00 PM Eastern on weekdays, while CME futures trade almost around the clock from Sunday evening to Friday.
- **Market Internals** — Gauges that look under the surface of the indexes, like the TICK index (how many NYSE stocks are ticking up minus down at this moment) and breadth (advancers vs. decliners). They are gauges, not signals — they describe the market's health, they do not predict the next move.
- **Market Maker** — A firm whose job is to always offer a price to buy and a price to sell, so trading never stalls. They earn money from the small gap between those two prices, called the spread.
- **Market Microstructure** — The study of how trading actually happens at the smallest level: orders, quotes, spreads, and how exchanges match buyers and sellers. Understanding it explains why you rarely get the exact price you see on the screen.
- **Market Order** — An order to buy or sell right now at whatever the current price is. It almost always fills immediately, but in a fast or thin market the price you get can be worse than expected.
- **Market Sentiment** — The overall mood of traders — fearful, greedy, or somewhere between. Sentiment helps explain why prices sometimes move more than the news alone would suggest.
- **Market Timing** — Trying to buy before rises and sell before falls based on predictions. It sounds simple but is famously hard, because you must be right twice: getting out and getting back in.
- **Market-on-Close (MOC)** — An order instruction to buy or sell at whatever the closing price turns out to be at the end of the day. You give up control of your exact price in exchange for being filled at the close.

- **Married Put** — An options strategy where you buy shares of stock and buy a put option on those same shares at the same time, like taking out an insurance policy the day you buy a car. The put caps your downside, and its premium is the cost of that protection.
- **Max Pain** — The price where, at expiration, the largest number of option contracts would expire worthless and option buyers as a group lose the most. Some traders watch it as a magnet price, though it is a theory, not a rule.
- **Maximum Drawdown** — The biggest peak-to-bottom fall an account or strategy suffered over a period. Example: an account that ran up to $12,000 and then dropped to $8,400 had a maximum drawdown of 30% — know this number before you trust any strategy.
- **Maximum Loss** — The most money a trade can possibly lose, if it can be known in advance. A bought option's maximum loss is the premium you paid; defined-risk spreads also have a fixed maximum loss.
- **Mean Reversion** — The idea that prices that stretch far from their average tend to drift back toward it, like a rubber band snapping back. Traders who use it buy sharp dips and sell sharp spikes.
- **Melt-Up** — A fast, sharp market rise driven by fear of missing out, as late buyers rush in all at once. Melt-ups feel great while they last, but prices pushed up by panic buying can fall just as fast.
- **Meme Stock** — A stock that becomes wildly popular through social media attention rather than the company's business results, like GameStop in 2021. Meme stocks can multiply or collapse in days — the attention is the fuel, and attention moves on.
- **Mental Stop** — A stop-loss level you keep only in your head instead of placing a real order with your broker (also called a soft stop). It only works if you actually act on it — in a fast move, hesitation turns a small planned loss into a big one.
- **Micro Futures** — Smaller versions of popular futures contracts, one-tenth the size of the standard "E-mini" contracts. The Micro E-mini S&P 500 (MES) is worth $5 per point instead of $50, so beginners risk far less per trade.
- **Microcap Stock** — A very small company, usually worth under $300 million. Microcaps can swing wildly and are often thinly traded, making them risky for beginners.
- **Mid Cap** — A medium-sized company, usually worth between about $2 billion and $10 billion. Mid caps sit between small caps and large caps in both growth potential and stability.
- **Mid Price** — The halfway point between the bid (what buyers offer) and the ask (what sellers want). Traders often try to get filled near the mid price instead of paying the full ask.
- **Mini (E-mini) Futures** — The standard-sized electronic futures contracts on stock indexes, like the E-mini S&P 500 (ES), worth $50 per point. They are the most heavily traded futures in the world, and the micro contracts are their one-tenth-size versions.
- **Momentum** — The tendency of prices that are moving strongly in one direction to keep moving that way for a while. Momentum traders buy what is rising and sell what is falling, following the move rather than fighting it.
- **Momentum Crash** — A sudden, sharp drop in popular momentum stocks — the recent winners everyone piled into — when the trend snaps. Crowded trades unwind fast because everyone tries to exit through the same door.
- **Money Flow Index (MFI)** — An indicator like RSI that also factors in volume, scored from 0 to 100, used to judge whether money is flowing into or out of a stock. Readings above 80 or below 20 are hints about extremes, not guarantees of a reversal.

- **Money Market Fund** — A very conservative fund that holds short-term, low-risk debt and aims to keep its value at $1 per share. Many brokers park your uninvested cash in one automatically.
- **Moneyness** — The relationship between a stock's price and an option's strike price. It describes whether an option is in the money (has real value now), at the money (strike equals the stock price), or out of the money (no real value yet).
- **Morning Star** — A three-candle pattern at the bottom of a downtrend: a strong down candle, a small indecisive candle, then a strong up candle. It suggests sellers are exhausted and buyers are stepping in — a hint, not a promise.
- **Moving Average** — A line on a chart showing the average price over the last set number of candles, like the 20-day or 200-day average. It smooths out the bumps so the main trend is easier to see.
- **Moving Average Ribbon** — A chart display of several moving averages of different lengths fanned out together like ribbons. When the ribbons squeeze together, a trend may be tiring; when they fan out in order, the trend looks strong.
- **Multi-Leg Order** — One order that buys and sells two or more options (or futures) together as a package, like a spread. It makes sure all parts fill together at one combined price.
- **Multiplier** — The number that turns an option's quoted price into its real cost. Stock options have a multiplier of 100, so a $2.50 premium really costs $2.50 × 100 = $250 per contract.
- **Municipal Bond** — A bond issued by a state, city, or local agency to pay for things like roads and schools. Its interest is often exempt from federal income tax, which is why investors in higher tax brackets like them — but lower risk is not no risk.
- **Mutual Fund** — A pooled fund where many investors' money is combined and managed together, priced once per day after the market closes. Unlike ETFs, you cannot trade a mutual fund during the day.

N

- **Naked Call** — A call option sold by someone who does not own the shares behind it. If the stock rockets upward, the seller must buy shares at the high price to deliver them, so the possible loss is unlimited.
- **Naked Option** — An option sold by someone who does not own the shares or the offsetting position behind it. It can lose far more than the price it was sold for, so brokers only allow it for experienced traders with large accounts.
- **Naked Put** — A put option sold without setting aside the cash or holding a hedge to cover it. If the stock crashes, the seller can be forced to buy shares far above their market price, so the loss can be very large.
- **Narrow Range** — A candle or trading day where the distance between the high and the low is small compared to usual. It means buyers and sellers were quiet and in balance, and traders watch for a bigger move once price finally leaves the range.
- **NASDAQ** — A major American stock exchange where shares are bought and sold electronically. Many famous technology companies, like Apple and Microsoft, trade here.
- **Nasdaq Composite** — An index that tracks nearly every stock listed on the NASDAQ exchange — more than 3,000 companies. When news reports say "the Nasdaq rose today," they usually mean this number.
- **Nasdaq-100** — An index (a numbered scorecard) of 100 of the largest non-bank companies listed on the NASDAQ, mostly technology names. It is the index the popular QQQ fund follows.
- **National Best Bid and Offer (NBBO)** — The highest bid and lowest ask for a stock across all US exchanges at that moment. Rules require brokers to fill your order at this best price or better.
- **Net Asset Value (NAV)** — The value of everything a fund owns, minus what it owes, divided by its shares. It is the per-share worth of a fund, figured out at the end of each trading day for mutual funds.
- **Net Change** — How much a price moved compared to the previous day's closing price. If a stock closed at $50 yesterday and $52 today, its net change is +$2.
- **Net Credit** — When a multi-part options trade (like a spread) puts money into your account when you open it, because you sold more premium than you bought. Credit trades usually profit if price stays put or moves away from the sold options.
- **Net Debit** — When a multi-part options trade costs you money to open, because you bought more premium than you sold. The debit paid is the most a buyer-side spread trade can lose.
- **Net Delta** — All of your positions' deltas added together, showing your total directional exposure in share terms. A net delta of +200 means your account roughly gains or loses what 200 shares would if the stock moves $1.
- **Net Income** — A company's profit after every cost, bill, and tax is paid. If a shop takes in $10,000 and spends $8,000 on everything, its net income is $2,000.
- **Net Liquidation Value (Net Liq)** — The cash value of your whole account if you closed every position right now at current prices. Broker apps show this number as the real-time worth of your account.
- **Net Worth** — Everything you own (cash, accounts, property) minus everything you owe (loans, card balances, debts). It is the single best scorecard of your overall financial health.
- **Neutral Strategy** — A trade designed to profit when price stays in a range instead of running in one direction, such as an iron condor. These trades lose when price makes a big move either way.

- **New Highs and New Lows** — A daily count of stocks reaching their highest or lowest price of the past year (usually 52 weeks). Lots of new highs suggests a strong market; lots of new lows suggests a weak one.
- **New York Stock Exchange (NYSE)** — The largest stock exchange in the United States, based on Wall Street in New York City. Companies like Walmart and Coca-Cola trade here.
- **News Catalyst** — A news event that pushes a stock's price, such as an earnings report, a new product, or a government announcement. Traders watch for catalysts because quiet stocks often start moving when big news hits.
- **Noise (Market Noise)** — The small, random up-and-down wiggle in prices that carries no real information about where price is going. Beginners lose money chasing noise; experienced traders learn to ignore most of it.
- **Nominal Value** — The stated face value of a security, or a dollar figure that has not been adjusted for inflation. A bond's nominal value is the amount printed on it that will be repaid at maturity.
- **Nonfarm Payrolls (NFP)** — A government report, usually released on the first Friday of each month, showing how many jobs the US economy added or lost. It often causes big, fast moves in stocks, futures, and currencies.
- **Notional Value** — The total dollar value a futures contract controls, found by multiplying the contract size by the price. One oil futures contract controls 1,000 barrels, so at $70 a barrel its notional value is $70,000 — far more than the deposit you put down.

O

- **Odd Lot** — An order for fewer than 100 shares of a stock. Buying 25 shares is an odd lot; it still works fine, it is just smaller than the standard block.
- **Off-Exchange Trading** — Buying and selling that happens away from the public exchanges, such as in private venues called dark pools or inside a broker's own system. A large share of US stock trades happen this way, and the prices still must match the public best quotes.
- **Offer (Ask Price)** — The lowest price a seller is currently willing to accept for a stock or contract. When you buy at market, this is roughly the price you pay.
- **OHLC (Open, High, Low, Close)** — The four key prices of any time period: where it started, the highest trade, the lowest trade, and where it ended. Every candle on a chart is drawn from these four numbers.
- **Omega** — An options number that shows an option's effective leverage: roughly how many percent the option's price moves for a 1% move in the stock. High omega means big swings in both directions, so small stock moves can make or wreck the option fast.
- **On-Balance Volume (OBV)** — An indicator that keeps a running total of volume, adding the day's volume when price closes up and subtracting it when price closes down. Traders use it to check whether money is quietly flowing into or out of a stock.
- **One-Cancels-Other (OCO) Order** — Two linked orders where filling one automatically cancels the other. Traders use it to set a profit-taking order and a stop-loss order at the same time, so whichever happens first ends the trade.
- **Open** — The price of the first trade of the day (or of any candle's time period). The word is also a verb — to "open" a position means to start a new trade.

- **Open Interest** — The total number of option or futures contracts that exist right now and have not been closed, exercised, or expired. High open interest means lots of traders are involved in that contract.
- **Open Interest Change** — How much open interest (the number of open contracts) rose or fell over a period. Rising open interest alongside a price move suggests new money is joining that move; falling open interest suggests traders are closing out.
- **Open Order** — An order you have placed that has not filled yet and has not been canceled. A limit order waiting for your price is an open order.
- **Open Position** — Any trade you are still holding. If you own 50 shares of a stock right now, that is an open position until you sell them.
- **Opening Auction** — The short process right at the market open where buy and sell orders are matched together to set one fair opening price. It handles the pile-up of orders placed overnight.
- **Opening Bell** — The bell rung at 9:30 a.m. Eastern Time that starts regular US stock market hours. Prices often move quickly in the first minutes after it rings.
- **Opening Range** — The high and low prices from the first few minutes of the trading day, often the first 5, 15, or 30 minutes. Many day traders watch this range as a map for the rest of the day.
- **Opportunity Cost** — What you give up by putting your money in one trade instead of another. Every dollar parked in a slow trade is a dollar that cannot work somewhere else, so good traders compare choices, not just ideas.
- **Option** — A contract that gives you the right, but not the obligation, to buy or sell a stock at a set price (the strike price) before a set date (the expiration). You pay a fee, called the premium, for that right.
- **Option Chain** — The big price list for a stock's options, showing every strike price and expiration date with the current price of each call and put. Think of it as the menu you order options from.
- **Option Contract** — One single option. A standard stock option contract controls 100 shares, so a premium quoted at $2.50 costs you $250 for one contract.
- **Option Seller (Writer)** — The person on the other side of an option trade, who collects the premium and takes on the obligation if the buyer uses the option. Selling options can bring in income but can carry large risk.
- **Options Approval** — Permission your broker gives you to trade options, granted in levels based on your experience and account. Beginners usually start with basic levels, like buying calls and puts, before spreads or selling options are allowed.
- **Options Assignment Risk** — The risk carried by anyone who has sold options: the buyer can exercise at any time before expiration (on American-style options), suddenly handing the seller shares or taking them away. This risk jumps around dividend dates on short calls.
- **Options Expiration** — The date an option contract ends. If the option has no value by the end of that day, it expires worthless and the buyer loses the premium paid.
- **Order** — An instruction you give your broker to buy or sell. A market order fills right away at the current price, while a limit order only fills at your chosen price or better.
- **Order Book** — The live list of buy and sell orders waiting at different prices for a stock or contract. Traders look at it to see how many buyers and sellers are lined up.
- **Order Flow** — The stream of buy and sell orders coming into the market right now. Watching order flow helps some traders judge whether buyers or sellers are more aggressive at the moment.

- **Oscillator** — A technical indicator that swings back and forth between set bounds, like 0 and 100, to suggest a stock may have risen or fallen too far, too fast. The RSI is the most famous example.
- **Out-of-Sample Testing** — Checking a trading strategy on market data it was NOT built or tuned on. A strategy that only works on the data used to create it will usually fail with real money.
- **Out-of-the-Money (OTM)** — Describes an option with a strike price that is currently on the losing side. A call is out-of-the-money when its strike is above the stock price; a put is out-of-the-money when its strike is below it — such options are cheaper but need a bigger move to pay off.
- **Outside Bar** — A candle whose high is higher and low is lower than the candle before it, completely swallowing the earlier candle's range. It shows a burst of two-sided fighting and often appears near turning points.
- **Outstanding Shares** — The total number of a company's shares that exist and are held by all investors. Multiply this by the share price and you get the company's market cap (total value).
- **Over-the-Counter (OTC)** — Trading that happens away from the big exchanges like the NYSE and NASDAQ, usually in tiny, little-known companies. OTC stocks follow looser rules and are much riskier than exchange-listed stocks.
- **Overbought** — A word traders use when a price has risen a lot in a short time and may be due for a pause or pullback. An RSI reading above 70 is a common overbought signal, but it is a hint, not a guarantee.
- **Overfitting** — Tuning a strategy's rules so precisely to past data that it memorizes random noise instead of real patterns. Overfit strategies look brilliant in backtests and usually fall apart in live trading.
- **Overnight Risk** — The danger of holding a position while the market is closed, when news can break and price can open (gap) far from your stop price. Losses from an overnight gap can be much bigger than the loss you planned.
- **Overnight Session** — Trading that happens outside regular daytime hours. Futures trade nearly around the clock on weekdays, and stocks can trade in pre-market and after-hours sessions with less activity.
- **Oversold** — The opposite of overbought: a price has fallen a lot in a short time and may be due for a bounce. An RSI reading below 30 is a common oversold signal, but prices can keep falling anyway.
- **Overvalued** — When a stock's price looks higher than the underlying business seems to be worth, based on its earnings, sales, or growth. An overvalued stock can be a great company and still be a risky buy at that price.

P

- **P/E Ratio (Price-to-Earnings)** — A popular way to judge whether a stock is cheap or expensive: share price divided by the company's yearly profit per share. A $100 stock earning $5 per share has a P/E of 20, meaning buyers pay $20 for each $1 of yearly profit.
- **Panic Selling** — When frightened investors all rush to sell at once, pushing prices down fast. It often happens after bad news and can make prices drop far below what a company is really worth.
- **Paper Trading** — Practicing with a pretend-money account that uses real market prices. It lets you learn how orders, options, and futures work without risking a single real dollar.
- **Par Value** — The face value printed on a bond or stock certificate — the amount a bond promises to pay back at the end. US bonds are commonly issued with a par value of $1,000.

- **Parabolic Move** — When a price rises faster and faster, curving steeply upward like a rocket launch. These moves feel exciting but usually end with a sudden, sharp drop, because the buying feeding them cannot last.
- **Partial Fill** — When only part of your order gets completed because there were not enough buyers or sellers at your price. If you ordered 200 shares and only 120 traded, you got a partial fill.
- **Passive Investing** — Buying broad funds that simply track an index and holding them for the long term, instead of picking stocks or timing trades. It is low-cost, low-effort, and beats most active traders over long periods.
- **Pattern (Chart Pattern)** — A shape that price repeatedly draws on a chart, such as a triangle or a flag, that traders watch for clues about what might happen next. Patterns can help plan trades, but none of them work every time.
- **Pattern Day Trader (PDT)** — A label for someone who makes four or more day trades within five business days in a margin account. Under the classic US rule, pattern day traders must keep at least $25,000 in account equity — but US regulators have been replacing this rule with new intraday-margin standards and brokers are transitioning, so check your own broker's current rule before relying on either version.
- **Payout Ratio** — The share of a company's profits that it pays out to shareholders as dividends. If a company earns $4 per share and pays a $1 dividend, its payout ratio is 25%; a ratio near or above 100% can mean the dividend is in danger.
- **PEG Ratio** — A stock's P/E ratio divided by its expected earnings growth rate, meant to judge price against growth instead of current profit alone. A PEG near 1 is often called fairly valued, but it is a rough rule of thumb, not a fact.
- **Penny Stock** — A stock trading under $5 per share, usually from a very small company. Penny stocks can swing wildly, are hard to sell quickly, and are a favorite target of scams, so beginners should be extremely careful.
- **Performance Chasing** — Buying whatever has just gone up a lot (or jumping into last year's winning fund) and selling whatever has fallen. It feels sensible but usually means buying high and selling low, arriving after most of the move is over.
- **Pin Risk** — The uncertainty when a stock closes almost exactly at an option's strike price on expiration day. The option seller cannot be sure whether they will be assigned, which makes planning the following Monday's position difficult.
- **Pip** — The smallest standard price step in currency (forex) trading, usually the fourth decimal place. If EUR/USD moves from 1.0850 to 1.0851, it moved one pip.
- **Pivot Point** — A price level worked out from the previous day's high, low, and close that traders use as a possible turning point. Prices often stall or reverse near pivot points, so many traders mark them on their charts.
- **Point (Futures)** — A full 1.00 move in a futures price. Its cash value depends on the contract: on the E-mini S&P 500 (ES) one point is worth $50, while on the Micro version (MES) one point is worth $5.
- **Portfolio** — Everything you own across your investment accounts — all your stocks, funds, options, and cash combined. Looking at your portfolio means looking at the whole picture, not just one trade.
- **Portfolio Margin** — A risk-based margin system for large, experienced accounts (usually $100,000 or more) that calculates required margin from the whole portfolio's combined risk instead of fixed

percentages. It allows much more leverage, which means losses can grow much faster too.

- **Position** — One holding or trade you currently have open, like 100 shares of a stock or two option contracts. Traders say "I have a position in Apple" to mean they are in that trade right now.
- **Position Delta** — The total delta of one position, found by multiplying the option's delta by the number of contracts and the 100 shares each controls. It tells you how many shares' worth of up-or-down exposure that position gives you.
- **Position Sizing** — Deciding how much money to put into each trade before you enter it. Good position sizing makes sure one bad trade can never wipe out your account.
- **Position Trading** — A longer-term style of trading that holds positions for weeks to months, riding major trends rather than daily swings. Position traders use daily and weekly charts and ignore most day-to-day noise.
- **Post-Market Trading** — Trading after the regular 4:00 p.m. Eastern close, also called after-hours. Fewer traders participate, so prices can jump around more and orders can fill at worse prices than during the day.
- **Pre-Market Trading** — Trading that happens before the regular 9:30 a.m. Eastern open, available through most brokers. Prices can jump on overnight news, but fewer traders are active, so moves can be jumpy.
- **Premium** — The price you pay to buy an option, quoted per share. Since one contract covers 100 shares, a $2.50 premium costs $250 per contract — and for a buyer, that $250 is the most you can lose on the trade.
- **Premium Decay** — The steady loss of an option's time value (extrinsic value) as expiration gets closer, driven by theta. Premium decay works against option buyers every single day and in favor of option sellers.
- **Price Action** — Reading the movement of price itself — the candles, trends, and support and resistance levels on a chart — instead of relying on indicators. It is the skill of watching what price is actually doing, bar by bar.
- **Price Discovery** — The process by which buyers and sellers, through their competing orders, find the price where trades actually happen. It is the market doing its main job: deciding what something is worth right now.
- **Price Improvement** — When your broker fills your order at a better price than the one publicly quoted. Even a few cents of price improvement per share adds up over many trades.
- **Price Limit (Limit Up / Limit Down)** — The maximum move a futures contract is allowed in one day, set by the exchange. When price hits the limit it can lock there with trading nearly stopped, which can trap traders in a losing position.
- **Price Target** — The future price an analyst predicts a stock will reach, usually within about a year. It is an educated opinion, not a promise — analysts are often wrong.
- **Primary Market** — Where brand-new securities are sold for the very first time, like a company selling shares to the public in an IPO. Money paid here goes to the company itself, not to another investor.
- **Principal** — The original amount of money you invested or borrowed, before any gains, losses, or interest. Protecting your principal means first making sure the base amount survives.
- **Private Placement** — A sale of shares directly to a small group of chosen investors instead of to the public on an exchange. These shares usually cannot be resold easily and are risky, so they are normally

limited to wealthy, experienced investors.

- **Profit and Loss (P&L)** — The total amount of money you have made or lost. A gain or loss is "realized" once you sell and lock it in; before that it is "unrealized" — just on paper, and it can still change.
- **Profit Factor** — A score for a set of trades: total gross profits divided by total gross losses. Above 1.0 means the trades made more than they lost before costs; many traders look for 1.5 or better, and it says nothing by itself about how bumpy the ride was.
- **Profit Margin** — The share of a company's sales it keeps as profit after costs. If a company sells $100 of goods and keeps $10 as profit, its profit margin is 10%.
- **Profit Target** — A price or profit level you choose in advance where you plan to sell and take your winnings. Setting a profit target before entering stops greed from making your decisions mid-trade.
- **Protective Put** — A put option bought by someone who owns the stock, as insurance. If the stock falls hard, the put gains value and cushions the loss, like a seatbelt for your shares.
- **Public Company** — A company whose shares are sold to the general public on a stock exchange, so anyone can buy a piece of it. Apple and Walmart are public companies; your local family restaurant is not.
- **Pullback** — A temporary dip in price during an overall uptrend, like a short rest during a climb. Traders often wait for a pullback to buy at a slightly better price.
- **Pump and Dump** — A scam where promoters hype up a cheap stock so the price rises ("pump"), then sell their own shares at the top and leave everyone else holding the crash ("dump"). It is illegal and mainly targets beginners — avoid any stock being pushed by strangers online.
- **Put Option** — A contract giving you the right to sell 100 shares at the strike price before expiration. Puts generally gain value when the stock falls; for example, a $50 put bought for $2.00 breaks even at $48 at expiration.
- **Put Wall** — A strike price holding an unusually large amount of put open interest, which some traders believe can act like support because of dealer hedging flows. It is a positioning gauge to be aware of, never a guarantee that price will stop there.
- **Put/Call Ratio** — The number of put options traded compared to calls in a market or stock. A high ratio means traders are buying more downside protection (fear); a low ratio suggests more optimism.
- **Pyramiding** — Adding more size to a position that is already winning, in steps. Done carelessly it raises your average cost so much that one normal pullback can turn a winner into a loser, so it needs a written plan.

Q

- **QQQ** — The ticker symbol of a hugely popular fund (ETF) that tracks the Nasdaq-100 index. Buying one share of QQQ is like buying a small slice of 100 big Nasdaq companies at once.
- **Quadruple Witching** — A day, four times a year (the third Friday of March, June, September, and December), when several kinds of options and futures contracts expire at the same time. These days often bring extra trading volume and sharper price swings.
- **Quantitative Easing (QE)** — When the US central bank (the Federal Reserve) buys large amounts of bonds to pump money into the financial system and push interest rates down. It is meant to encourage borrowing and spending, and markets often rise while it runs.

- **Quantitative Tightening (QT)** — When the Federal Reserve shrinks its balance sheet by letting bonds it owns mature without replacing them, slowly pulling money out of the financial system. It is the opposite of quantitative easing and tends to pressure asset prices.
- **Quantitative Trading** — Trading driven by mathematical models and computer programs that follow fixed rules instead of human judgment in the moment. It ranges from simple rule-based systems to huge funds trading in fractions of a second.
- **Quarterly Earnings Report** — A report card every public company must publish about every three months, showing its sales and profits. Stock prices can jump or drop sharply in the hours after one is released.
- **Quick Ratio** — A simple check of whether a company could pay its near-term bills using only its most easily-sold assets, like cash. A ratio above 1 means it has more quick assets than short-term debts.
- **Quote** — The current prices being offered for a stock or contract: the bid (what buyers will pay) and the ask (what sellers want). When you "get a quote," you are seeing those live numbers.
- **Quote Currency** — In a currency pair, the second currency listed — the one the price is stated in. In EUR/USD at 1.08, the US dollar is the quote currency: one euro costs 1.08 dollars.
- **Quote Stuffing** — Flooding the market with a huge number of orders that are canceled almost instantly. Regulators have accused some high-speed trading firms of using it to slow or confuse competitors; it is hard to prove, and ordinary traders cannot do it from a normal brokerage account.

R

- **Rally** — A strong rise in a price over hours, days, or weeks. After weeks of falling, a market that climbs steadily for several days is said to be rallying.
- **Range** — The distance between a price's high and its low over a period, or the zone a price keeps bouncing inside, between support below and resistance above. A stock trapped between $90 and $100 is "trading in a range."
- **Range-Bound** — Describes a price stuck moving sideways between a clear ceiling (resistance) and floor (support), with no real trend. Strategies that work in trends usually bleed money in range-bound markets, and the opposite is also true.
- **Rate Hike and Rate Cut** — When the Federal Reserve raises (hike) or lowers (cut) its main target interest rate. Hikes make borrowing more expensive and often pressure stocks; cuts do the opposite.
- **Rate of Change (ROC)** — An indicator that measures how much price has changed over a set number of periods, shown as a percentage. It is a simple momentum gauge: strongly positive values mean price has climbed fast, strongly negative values mean it has fallen fast.
- **Ratio Spread** — An options trade that buys a certain number of options and sells a larger number of further-out options at the same time. It can be opened cheaply, but the extra sold options leave part of the trade with undefined, potentially large risk.
- **Real-Time Quote** — A price that is live right now, with no delay. Some free websites and apps show prices delayed by 15 minutes or more, which is too slow for active trading.
- **Realized Gain or Loss** — A profit or loss that is final because you have closed the trade. If you buy at $40 and sell at $46, your $6-per-share gain is realized — it is yours to keep.
- **Realized Volatility** — How much a price actually moved around over a past period, measured from real price history. Traders compare it with implied volatility (what options are pricing in) to judge whether

options look expensive or cheap.

- **Rebalancing** — Adjusting your portfolio back to your planned mix after prices move. If your plan was 60% stocks and 40% bonds and stocks grew to 70%, rebalancing means selling some stocks and buying bonds to restore the mix.
- **Recession** — A period when the overall economy shrinks and business slows down, often described as two quarters (six months) in a row of falling economic output. Jobs get harder to find, company profits fall, and stock markets usually struggle.
- **Record Date** — The deadline date set by a company: you must officially own the shares by this date to receive the upcoming dividend. Buy after the record date and the dividend goes to the previous owner instead.
- **Regular Trading Hours (RTH)** — The main US stock market session: 9:30 a.m. to 4:00 p.m. Eastern Time, Monday through Friday, excluding holidays. This is when trading is busiest and prices are most reliable.
- **Regulation T (Reg T)** — The US rule that lets a broker lend you up to 50% of the purchase price when you first buy stock in a margin account. Buy $10,000 of stock and you must put up at least $5,000 of your own money at the start.
- **Relative Strength** — How a stock's price performance compares to a benchmark index over a period — not to be confused with the RSI indicator. A stock up 15% while the S&P 500 is up 5% shows strong relative strength.
- **Relative Strength Index (RSI)** — A popular indicator that scores recent price momentum from 0 to 100. Readings above 70 suggest a stock may be overbought, and readings below 30 suggest it may be oversold — signals to pay attention, never guarantees.
- **Relative Volume (RVOL)** — A stock's trading volume compared to its own average volume for that same time of day. An RVOL of 3 means it has traded three times its usual amount, which usually signals news or unusual interest.
- **Resistance** — A price level where a rising stock keeps getting pushed back down, like a ceiling. If a stock fails to get past $100 three times, traders call $100 resistance.
- **Retracement** — A partial move back against the main trend. If a stock climbs from $100 to $120 and then slips to $110, it has retraced half of the move — traders watch these pullbacks for chances to join the trend.
- **Return** — The gain or loss on your money, usually shown as a percentage. Making $100 on a $1,000 investment is a 10% return.
- **Return of Capital** — A payment from a fund or company that hands investors back part of their own invested money rather than paying from profits. It is not earnings — receiving it lowers what the investment itself still holds.
- **Revenue** — The total money a company takes in from selling its products or services, before subtracting any costs. It is also called sales or the "top line" because it sits at the top of the financial report.
- **Reversal** — When a price trend changes direction — an uptrend ends and prices start falling, or a downtrend ends and prices start rising. Catching the exact moment of a reversal is one of the hardest things in trading.
- **Reward-to-Risk Ratio** — A comparison of how much you could make on a trade versus how much you could lose, worked out before you enter. Risking $100 to aim for $300 is a 3-to-1 reward-to-risk ratio.

- **Rho** — The Greek that measures how much an option's price changes when interest rates move — roughly, the price change for a 1 percentage-point rate shift. It matters most for long-dated options and is usually the least important Greek for short-term trades.
- **Rights Offering (Rights)** — When a company gives existing shareholders short-lived "rights" to buy new shares, usually at a discount, in proportion to what they already own. Rights can often be sold if you do not want to use them, but they expire quickly.
- **Risk** — The chance that you will lose money on a trade or investment. Every trade has risk; the goal of learning is not to remove it, but to control how much of it you take.
- **Risk Capital** — Money set aside for trading or speculation that you can afford to lose completely without harming your housing, bills, or family's security. Trading with anything other than risk capital is how people get hurt.
- **Risk Graph** — A chart your broker draws showing a position's estimated profit or loss at many different stock prices, often for today and for expiration day. It is the fastest way to see where a trade wins, where it loses, and its worst case.
- **Risk Management** — The set of habits and rules that protect your account: sizing positions small, using stop losses, and never betting too much on one idea. It is the main skill that separates long-lasting traders from gamblers.
- **Risk Tolerance** — How much loss and how big a price swing you can handle, both in your wallet and in your stomach. A person who cannot sleep when their account drops 10% has a low risk tolerance and should trade smaller.
- **Risk-Adjusted Return** — A way of judging performance that weighs how much risk was taken to earn a return, instead of looking at profit alone. A strategy making 10% with small, calm swings is genuinely better than one making 10% with terrifying drops, even though the headline numbers match.
- **Risk-On / Risk-Off** — A quick way to describe the market's mood. "Risk-on" means investors feel brave and buy stocks and other growth assets; "risk-off" means they feel cautious and move toward safer assets like cash and bonds.
- **Role Reversal (Polarity)** — The principle that a price level often flips its job after it breaks: support that gives way tends to become resistance on the way back up, and broken resistance tends to become support. Traders watch old levels for exactly this flip.
- **Roll (Rolling a Position)** — Closing a contract that is about to expire and opening the same kind of position in a later expiration, to keep the trade going. Futures traders roll to the next month's contract, and option traders roll to a later date (and sometimes a different strike).
- **Rotation (Sector Rotation)** — When big investors move money out of one group of stocks and into another — for example, out of technology and into energy. Watching rotation shows where money is flowing across the market.
- **Round Lot** — The standard block of 100 shares of a stock. Prices are often quoted and big orders filled in round lots, though today anyone can buy even a single share.
- **Round Trip** — One complete trade: opening a position and closing it again. Buying a stock on Monday and selling it on Tuesday is one round trip.
- **RSI Divergence** — When price and the RSI indicator disagree — for example, price makes a new high but RSI makes a lower high. It warns that momentum is tiring, but it is a caution sign, not a guarantee of reversal, and prices can diverge for a long time.

- **Rule-Based Trading** — Making every entry, exit, and size decision from rules written down in advance, instead of feelings in the moment. It is the foundation of both disciplined manual trading and automated systems.

S

- **S&P 500** — A list of 500 of the biggest companies in the United States, tracked as one number that goes up and down. When people say "the market went up today," they often mean this list went up.
- **Scalping** — A very fast style of trading where you buy and sell within minutes, or even seconds, trying to grab tiny profits many times a day. It is fast, stressful, and hard for beginners.
- **Scenario Analysis** — Thinking through "what happens to my trade if price goes up, down, or nowhere" before you enter, instead of only imagining the win. Good traders plan for all three outcomes, not just the one they want.
- **Seasonality** — The idea that prices sometimes follow patterns tied to the time of year, like certain months often being stronger than others. It is a tendency, not a guarantee.
- **SEC (Securities and Exchange Commission)** — The United States government agency that polices the markets. It makes the rules public companies and brokers must follow and punishes fraud.
- **Secondary Market** — The market where regular people buy and sell stocks to each other after the shares first exist. Almost everything you will ever trade happens here, on exchanges like the New York Stock Exchange and Nasdaq.
- **Secondary Offering** — When a company sells more new shares after it is already public. It raises cash for the company but can push the price down because there are now more shares sharing the same company.
- **Sector** — A group of companies that do similar business, like technology, healthcare, energy, or banks. Traders watch sectors because stocks in the same sector often move together.
- **Sector Rotation** — When big investors move money from one sector into another as the economy changes. For example, money might leave technology stocks and flow into energy stocks.
- **Secular Trend** — A very long trend that lasts for years, like a decade-long rise in technology stocks. It is much bigger and slower than the day-to-day trends most traders watch.
- **Securities** — A general word for tradable financial assets: stocks, bonds, options, and similar products. If you can buy and sell it on a market, it is probably a security.
- **Sell the News** — When a stock falls right after good news comes out, because traders who bought early sell to lock in profits. It is the flip side of "buy the rumor, sell the news."
- **Sell to Close** — An order that sells an option you already own, ending that position. If you bought a call for $200 and sell to close at $300, you keep the $100 difference minus fees.
- **Sell to Open** — An order that creates a brand-new short option position by selling an option you do not own yet. You collect money (the premium) up front but take on an obligation, which can be risky.
- **Sell-Off** — A sudden wave of selling that pushes prices down quickly. It often happens when bad news scares many holders into selling at the same time.
- **Session (Trading Session)** — One full day of trading. For US stocks, the regular session runs 9:30 AM to 4:00 PM Eastern Time.
- **Settlement** — The final step of a trade, when the money and the shares officially change hands and become fully yours. Buying a stock feels instant, but settlement happens behind the scenes a little later.
- **Settlement Date** — The day a trade is officially finished and the cash or shares actually change hands. For most US stock trades this is T+1 — one business day after the trade date.

- **Settlement Price** — The official closing price a futures exchange sets at the end of each day. Your futures account gains and losses are calculated from this price.
- **Settlement, Cash** — How index options like SPX finish: no shares change hands, the winner simply receives the cash difference. This is why you never get assigned shares from an SPX option.
- **Settlement, Physical** — How most stock options finish: the actual shares are delivered and paid for when the option is exercised. This is the normal way stock and ETF options settle.
- **Shakeout** — A sharp, quick drop that scares nervous holders into selling, right before price recovers. Shakeouts punish traders who place their stop losses in the most obvious spots.
- **Share** — One small unit of ownership in a company. If a company has 1,000 shares and you own 10, you own 1% of that company.
- **Share Class** — Some companies sell different types of shares, often called Class A and Class B. They may carry different voting power even though they represent ownership in the same company.
- **Share Price** — The cost of one single share of a stock at a given moment. If a stock shows $50, that is the price for one share, not the whole company.
- **Shares Outstanding** — The total number of shares of a company that exist and are held by everyone. Multiply this by the share price and you get the company's total market value (market cap).
- **Sharpe Ratio** — A score that measures how much return a trader or fund earned for the amount of ups and downs they took to get it. Higher is smoother; a big return with wild swings can score worse than a smaller, steadier one.
- **Short Covering** — Buying back shares you previously sold short, which closes your short position. If many short sellers cover at once, the rush of buying can push the price up fast.
- **Short Float** — The percentage of a stock's available shares (its float) that have been sold short. A very high short float means many traders are betting against the stock — and it can fuel a squeeze if they all rush to exit.
- **Short Interest** — The total number of a stock's shares that have been sold short and not yet bought back. High short interest means many traders are betting the price will fall.
- **Short Position** — A position that profits when a price goes down and loses when it goes up. You can be short by selling shares you borrowed, or by holding options that gain when price falls.
- **Short Selling** — Borrowing shares from your broker, selling them at today's price, and hoping to buy them back cheaper later to return them. If the price rises instead, losses can keep growing with no limit.
- **Short Squeeze** — When a heavily shorted stock jumps in price and short sellers rush to buy back shares to stop their losses. That extra buying pushes the price even higher, very fast.
- **Side** — Which side of a trade you are on: the buy side or the sell side. Every trade has both — for you to buy, someone else has to sell.
- **Sideways Market** — A market that drifts up and down inside a range without a clear direction. Prices move, but they do not really go anywhere over time.
- **Signal** — A clue from a chart, indicator, or strategy that suggests it might be time to act, like a moving average crossover. A signal is a hint to check your plan, never a guarantee or an order to trade.
- **Simple Moving Average (SMA)** — A line on a chart that averages a stock's price over a set number of days, like the last 50 days. It smooths out daily wiggles so the bigger trend is easier to see.

- **Size (Position Size)** — How many shares or contracts you trade in one position. Size is what turns a small price move into a small loss or a disaster — it is the most important risk decision you make.
- **Skew (Options Skew)** — The pattern where options at different strike prices carry different implied volatility, usually with puts priced richer than calls. It shows traders are paying up more for downside protection than for upside bets.
- **Slippage** — The small difference between the price you expected and the price your order actually filled at. It happens most when prices move fast or few people are trading.
- **Small-Cap Stock** — A stock of a smaller company, usually worth between about $300 million and $2 billion in total. Small-caps can grow fast but tend to swing more and are riskier than big-company stocks.
- **Smart Money** — A nickname for big professional investors like funds and institutions, whose moves traders try to follow. Be careful: nobody can see their full picture, and plenty of "smart money" trades lose too.
- **Smoothing** — Using an average to flatten out jagged price or data lines so the trend is easier to see, the way a moving average smooths daily prices. Smoothing makes charts calmer but also slower to react.
- **Social Sentiment** — The overall mood about a stock on social media and forums — bullish, bearish, or panicked. It can move small stocks fast, and it is one of the easiest things for promoters to fake.
- **Soft Stop** — A stop loss you keep in your head instead of entering it as a real order with your broker. It only works if you are watching and actually act — many beginners freeze, which is how mental stops become huge losses.
- **Speculation** — Buying something mainly because you hope its price moves your way soon, accepting a real chance of losing money. It is different from long-term investing, and most trading is speculation.
- **Spike** — A sudden, sharp move up or down that looks like a thin spike on the chart, often caused by news or a burst of orders. Spikes frequently reverse just as fast, so chasing them is risky.
- **Spin-Off** — When a company splits off one of its divisions into a brand-new, separate public company, and existing shareholders receive shares of the new one. Example: a big company spinning off its streaming division into its own stock.
- **Split-Adjusted** — A past price that has been recalculated to account for a stock split, so old and new prices can be compared fairly. Without adjusting, a chart would show a fake crash on the split day.
- **Spot Price** — The price of something right now, for immediate delivery. When a news report names the price of gold or oil, that is the spot price.
- **Spread** — Most often, the small gap between the highest price a buyer offers (the bid) and the lowest price a seller accepts (the ask). It can also mean a trade built from two or more options at the same time.
- **Squeeze** — Any situation where traders caught on the wrong side rush to exit at once, pushing price even harder against them. Short squeezes are the famous kind, but long squeezes happen on the way down too.
- **Stagflation** — A nasty mix of slow economic growth and high inflation at the same time. It is hard on stocks because the economy is weak while prices keep rising.
- **Standard Deviation** — A math measure of how much prices usually swing around their average. A bigger number means wilder, jumpier price movement.
- **Stock** — A piece of ownership in a company. When you buy a stock, you own a small slice of that business and your money rises or falls with it.

- **Stock Buyback** — When a company uses its own cash to buy its shares back from the market. Fewer shares remain, so each remaining share represents a slightly bigger slice of the company.
- **Stock Dividend** — A dividend paid in extra shares instead of cash. If you own 100 shares and get a 5% stock dividend, you receive 5 more shares.
- **Stock Exchange** — An organized marketplace where stocks and other securities are bought and sold, like the New York Stock Exchange (NYSE) and Nasdaq. Exchanges enforce rules so trading is fair and orderly.
- **Stock Index** — A number that tracks the combined performance of a chosen group of stocks, like the S&P 500 or the Nasdaq-100. You cannot buy an index directly; you trade funds, futures, or options based on it.
- **Stock Market** — The whole system of exchanges and networks where company shares are bought and sold. It is where businesses raise money and everyday people invest.
- **Stock Quote** — The latest price information for a stock: its last trade price, the current bid and ask, and how much it has moved today. Your broker app shows quotes all day long.
- **Stock Screener** — A search tool that filters thousands of stocks by rules you pick, like price, size, or how much they moved today. It helps you find candidates instead of scrolling everything.
- **Stock Split** — When a company cuts each share into several cheaper shares. In a 2-for-1 split, your 10 shares at $100 become 20 shares at $50 — you own the same total value.
- **Stop Hunting** — When price briefly pushes past a level where many stop orders sit, triggering them, then reverses. It is one reason beginners sometimes get stopped out right before price goes their way.
- **Stop Order (Stop Loss)** — An order that sits waiting until price reaches your chosen level, then becomes a market order to get you out. Traders use it to cap a loss — for example, sell automatically if a $50 stock falls to $45.
- **Stop-Limit Order** — An order that becomes a limit order once price reaches your stop price. It protects you from a terrible fill price, but if price jumps past your limit, the order may never fill at all.
- **Straddle** — An options trade that buys a call and a put at the same strike price and expiration. It profits if the stock makes a big move in either direction, and loses if price stays quiet.
- **Strangle** — Like a straddle, but the call and put have different strike prices, usually a put below the current price and a call above it. It costs less than a straddle but needs an even bigger move to profit.
- **Street Name** — When your shares are officially registered under your broker's name, even though they belong to you. This is how nearly all brokerage accounts hold stock — it is normal and your ownership is still recorded.
- **Strike Price** — The fixed price written into an option contract. A call's strike is the price you may buy the stock at; a put's strike is the price you may sell it at.
- **Strike Selection** — The skill of choosing which strike price to trade on an option — closer strikes cost more but move more like the stock; farther strikes are cheaper but expire worthless far more often. Cheap is not the same as good value.
- **Suitability** — The rule that a broker should only recommend or allow strategies that fit a customer's experience, finances, and risk tolerance. It is why brokers ask questions and set approval levels before letting you trade advanced strategies.
- **Supertrend** — A popular indicator that draws a line above or below price to show the trend and suggest trailing stop levels. Like every indicator, it lags and whipsaws in choppy markets — it is a guide, not a

promise.

- **Supply and Demand** — The basic engine of every price: more eager buyers than sellers pushes price up, and more eager sellers than buyers pushes it down. Every chart move comes back to this.
- **Supply Zone** — An area on a chart where heavy selling pushed price down hard before, and where sellers may step in again. Traders watch supply zones overhead the way they watch support below.
- **Support** — A price area where a falling stock has tended to stop and bounce, like a floor. Buyers have stepped in there before, so traders watch to see if they do it again.
- **Support Flip** — When an old resistance level that price finally breaks above turns into support on the way back down. Levels often swap jobs once they are broken — traders call this role reversal.
- **Survivorship Bias** — The trap of only seeing the winners that survived — like judging a strategy by the stocks still trading today while ignoring all the ones that failed and disappeared. It makes the past look easier and safer than it really was.
- **Swap** — A private contract where two parties exchange cash flows, such as swapping a fixed interest rate for a floating one. Swaps are mostly an institutional tool; beginners will mainly hear about them in news about big banks.
- **Swing High** — A peak on a chart where price rose, then turned down, leaving a clear high point with lower prices on both sides. Swing highs mark where sellers last took control.
- **Swing Low** — A valley on a chart where price fell, then turned up, leaving a clear low point with higher prices on both sides. Traders often place stop losses just below important swing lows.
- **Swing Trading** — A style of trading that holds positions for a few days to a few weeks, aiming to catch a medium-sized move. It is slower than day trading and does not require watching the screen all day.
- **Symbol (Ticker)** — The short code that identifies a stock or fund, like AAPL for Apple or SPY for a popular S&P 500 fund. You type the symbol into your broker app to find and trade it.
- **Systematic Trading** — Trading by a completely written set of rules — often run or checked by a computer — with no gut-feel decisions. The opposite of discretionary trading, where the trader decides in the moment.

T

- **T+1 Settlement** — The current US rule (since May 2024) that stock trades officially settle one business day after the trade. Sell a stock on Monday, and the cash is fully settled on Tuesday.
- **Take Profit** — Deciding in advance the price at which you will sell and lock in a gain. Many traders place a take-profit order so the exit happens automatically instead of getting greedy.
- **Takeover** — When one company buys control of another company. The target company's stock often jumps because the buyer usually pays more than the current price.
- **Tape Reading** — Watching the live stream of actual trades — prices, sizes, and speed — to judge whether buyers or sellers are stronger right now. It is one of the oldest skills in trading.
- **Target Price** — The price level where you plan for a trade to reach, or a price an analyst publishes as their estimate of a stock's value. It is a goal or opinion, never a promise.
- **Tax Lot** — A specific batch of shares you bought at one time and price, which the IRS tracks separately for taxes. When you sell, which lot you sell can change how much tax you owe.

- **Tax-Loss Harvesting** — Selling a losing position on purpose near year-end so the loss can lower your taxes, while staying invested in something similar. Tax rules here are tricky, so this is educational only — talk to a tax professional.
- **Technical Analysis** — Studying price charts and trading volume to make trading decisions, instead of studying the company's business. It assumes past price patterns and trends can help time entries and exits.
- **Technical Default** — When a borrower breaks a rule in its loan agreement — like a debt limit — even if it is still making its payments. It can trigger penalties or demands for repayment and is an early warning sign for bondholders.
- **Theta** — A measure of how much value an option loses each day just because time is passing. If an option's theta is −0.05, it loses about $5 per contract per day, all else equal.
- **Theta Decay Curve** — The pattern showing how an option's time value melts slowly at first, then faster and faster as expiration approaches. The last few days are where decay hits hardest — brutal for option buyers, helpful for sellers.
- **Thin Market** — A market or stock with very few buyers and sellers active. Prices can jump around on small orders, spreads get wide, and getting in or out at a fair price is harder.
- **Tick** — The smallest amount a price is allowed to move. For most stocks one tick is one cent; for futures it varies by product, such as 0.25 points on the ES.
- **Tick Chart** — A chart that draws a new candle after a set number of trades (ticks) instead of after a set amount of time. Fast markets produce candles quickly; quiet markets produce them slowly.
- **TICK Index** — A gauge that shows, at this moment, how many NYSE stocks are ticking up minus how many are ticking down. It is a mood meter for the whole market — a gauge to glance at, not a signal to buy or sell by itself.
- **Tick Value** — The dollar value of one tick in a futures contract. On the ES, one tick (0.25 points) is worth $12.50 per contract; on the smaller MES it is $1.25.
- **Tight Market** — A market with a very narrow bid-ask spread and lots of orders, where you can trade quickly with little cost. The opposite of a wide market; big, popular stocks are usually tight.
- **Time and Sales** — A live feed showing every trade as it happens: price, number of shares or contracts, and time. It is the raw data tape readers watch.
- **Time Decay** — The daily shrinking of an option's time value as expiration gets closer. It speeds up in the final days, which is why bought options can melt away even when the stock barely moves.
- **Time Frame Alignment** — Checking that the trend agrees across several chart time frames — for example, the daily and hourly charts both pointing up. Trades taken with the bigger trend tend to fight less headwind.
- **Time in Force** — The instruction telling your broker how long an order stays active: DAY means it cancels at the close if unfilled, and GTC (Good 'Til Canceled) means it stays working until you cancel it or it fills. Always check this before assuming an old order is gone.
- **Time Value** — The part of an option's price that comes from time remaining and the chance of a big move, rather than from the stock's current price. A $60 call on a $55 stock trading at $2 is all time value.
- **Timeframe** — The amount of time each candle or data point on your chart represents, like 1 minute, 1 hour, or 1 day. Day traders use short timeframes; investors use daily and weekly ones.

- **Top Line** — A company's total sales (revenue), the first line on its earnings report. The "bottom line" is what is left as profit after all costs.
- **Total Return** — Everything you earn from an investment combined: price gains plus dividends or interest. A stock up 5% that also paid a 2% dividend gave a total return of about 7%.
- **Trade Confirmation** — The official record your broker sends after a trade, showing what you bought or sold, the price, and the fees. Always check it to make sure the trade matches what you intended.
- **Trade Date** — The day a trade actually happens. This is different from the settlement date, which is when the money and shares officially change hands.
- **Trade Journal** — A notebook or spreadsheet where you record every trade: why you entered, where you exited, and what you learned. Reviewing it is one of the fastest ways for beginners to improve.
- **Trade Location** — Where your entry sits relative to nearby support and resistance. Buying right at support is a good location; buying in the middle of nowhere, far from any level, is a poor one — even for the same setup.
- **Trade Management** — Everything you do after entering: moving stops, taking partial profits, adding, or getting out early. Many traders have fine entries and still lose money through sloppy management.
- **Trader** — A person who buys and sells in the markets, usually aiming for shorter-term moves than an investor. Traders can trade stocks, options, futures, and more.
- **Trading Halt** — A temporary pause in trading of a stock or the whole market, ordered by the exchange. Halts happen during extreme moves or while important news is released.
- **Trading Plan** — A written set of rules you decide before trading: what you trade, when you enter, how much you risk, and when you exit. A plan keeps emotions from running your money.
- **Trading Psychology** — How emotions like fear, greed, hope, and revenge affect trading decisions. Managing your mindset is often harder than learning the charts.
- **Trading Range** — The space between a high price (resistance) and a low price (support) where a stock keeps bouncing back and forth. Traders say a stock is "range-bound" while it stays inside.
- **Trailing Stop** — A stop order that follows the price as it rises, staying a set distance below it. If a stock climbs from $50 to $60, a $5 trailing stop rises to $55, locking in gains if price falls.
- **Trailing Twelve Months (TTM)** — Numbers measured over the most recent 12 months, like a company's revenue for the last four reported quarters. It gives an up-to-date picture instead of using one calendar year.
- **Transaction Cost** — The total cost of making a trade: commissions, fees, the bid-ask spread, and slippage combined. Frequent traders can bleed more to costs than they realize.
- **Trend** — The general direction a price is moving over time: up, down, or sideways. Many traders try to trade in the same direction as the trend rather than fighting it.
- **Trend Day** — A session where price moves mostly one direction from open to close with only small pullbacks. Trend days reward holding with the move and punish traders who keep fading it.
- **Trend Exhaustion** — The point where a trend runs out of energy — moves get smaller, momentum fades, and price stalls. Exhaustion warns a move may be ending, but calling the exact top or bottom is still a guess.
- **Trend Following** — A strategy of jumping on established trends and riding them as long as they last, exiting when the trend breaks. It accepts many small losses to catch a few big moves.

- **Trendline** — A straight line drawn on a chart connecting a series of highs or lows. It helps you see the trend and spot where price might bounce or break through.
- **Triple Bottom** — A chart pattern where price falls to the same low area three times and bounces each time. Three failed attempts to break lower suggest buyers are defending that level.
- **Triple Top** — A chart pattern where price rises to the same high area three times and fails each time. Three failed attempts to break higher suggest sellers are defending that level.
- **True Range** — A measure of how much a candle really moved, including any gap from the previous close. It is the building block of the ATR indicator used to size stops.
- **Two-Sided Market** — A market where buyers and sellers are both active, with real bids and offers on both sides. Market makers are required to provide this so you can always trade.

U

- **Uncovered (Naked) Option** — An option sold without owning protection against it, like selling a call without owning the stock. Losses can be huge or even unlimited, so brokers restrict this and beginners should avoid it.
- **Underlying** — The thing an option or future is based on. For an Apple call option, the underlying is Apple stock; for S&P 500 futures, it is the S&P 500 index.
- **Underperform** — To do worse than a comparison point, usually the overall market. If your stock rose 2% while the S&P 500 rose 8%, your stock underperformed.
- **Underweight** — An analyst's way of saying they expect a stock to do worse than average, so investors might own less of it than usual. The opposite opinion is called overweight.
- **Underwriter** — A bank that helps a company sell new shares to the public, such as during an IPO (a company's first public stock sale). The underwriter organizes the sale and helps set the starting price.
- **Unlimited Risk** — A position where there is no cap on how much money you can lose. Selling stock short or selling a naked call carries unlimited risk because prices can rise without any ceiling.
- **Unrealized Gain or Loss** — The profit or loss on a position you still hold, measured at today's prices. It only becomes real (realized) when you sell and lock it in.
- **Unwind** — To close out a position or a complicated trade completely, often piece by piece. Headlines about a fund "unwinding" a big position mean it is exiting, which can move prices.
- **Upside** — The potential for a price to rise, or the amount it might gain. If a stock at $40 could reasonably reach $50, traders say it has $10 of upside.
- **Uptick** — A trade that happens at a price slightly higher than the trade just before it. A series of upticks shows buyers are actively pushing price up.
- **Uptick Rule** — A market rule (SEC Rule 201) that limits short selling on a stock that has fallen 10% or more in one day: short sales must then be priced above the current best bid. It exists to slow down pile-on selling in a crashing stock.
- **Uptrend** — A pattern where prices keep making higher highs and higher lows over time. It is the chart's way of showing buyers are in control.

V

- **Valuation** — The process of estimating what a company or asset is actually worth. Investors compare that estimate to the current price to decide if something looks cheap or expensive.

- **Value Stock** — A stock that looks cheap compared to the company's earnings, assets, or sales. Value investors buy these hoping the market eventually prices them fairly.
- **Value Trap** — A stock that looks cheap — low price, low P/E — but keeps falling because the business itself is getting worse. Cheap can always get cheaper; a low price alone is not a bargain.
- **Variable Cost** — A cost that changes depending on how much you trade, like per-contract option fees or interest on a margin loan. The more active you are, the more these add up.
- **Vega** — A measure of how much an option's price changes when expected volatility moves by one percentage point. If vega is 0.10, the option gains or loses about $10 per contract for each 1% change in implied volatility.
- **Velocity** — How fast price is moving, not just which direction. High velocity moves can blow straight through stop levels, which is why fast markets demand smaller size.
- **Vertical Spread** — An options trade using two options of the same type and expiration but different strike prices, like buying a $50 call and selling a $55 call. It costs less than a single option and caps both your risk and your reward.
- **VIX (Volatility Index)** — A number that measures how much movement traders expect in the S&P 500 over the next 30 days. It often spikes when fear rises, which is why it is nicknamed the "fear gauge."
- **Volatility** — How much and how fast a price swings around. A stock that moves 5% a day is far more volatile than one that moves 0.5% a day.
- **Volatility Crush (IV Crush)** — A sharp drop in an option's price right after a big expected event, like an earnings report, because the uncertainty is gone. It can hurt option buyers even when the stock moves their way.
- **Volatility Smile** — The curved pattern — shaped like a smile — that appears when you plot implied volatility across an option chain's strike prices. It shows that far out-of-the-money options carry extra implied volatility compared to at-the-money ones.
- **Volatility Targeting** — A strategy approach where position size is adjusted based on how wild the market is: smaller size when volatility is high, larger when it is calm. The goal is keeping your dollar risk steadier instead of your share count.
- **Volume** — How many shares or contracts changed hands during a period. A stock that trades 10 million shares a day has far more volume than one that trades 10 thousand.
- **Volume Profile** — A chart tool that shows how much trading happened at each price level, not just over time. It highlights prices where buyers and sellers were most active.
- **VWAP (Volume-Weighted Average Price)** — The average price of a stock for the day, weighted so trades with more volume count more. Big institutions compare their fills to VWAP, and many traders use it as a fair-price line on the chart.

W

- **Wall Street** — A street in New York City where the financial industry grew up, now used as a nickname for the entire US financial system: the exchanges, big banks, and funds.
- **Warrant** — A long-term certificate, usually issued by a company, giving the holder the right to buy its stock at a set price before a future date. It works much like a long-dated call option.
- **Wash Sale** — A tax rule: if you sell a stock for a loss and buy a substantially identical one within 30 days before or after that sale (a 61-day window total), the loss is disallowed for taxes for now. This is

educational only, not tax advice — talk to a tax professional.

- **Wash Trading** — The illegal practice of buying and selling the same asset to yourself or a partner to fake trading activity. It creates the illusion of interest in a stock or coin — a classic pump-and-dump ingredient.
- **Watchlist** — A personal list of stocks or contracts you are keeping an eye on but have not bought. Most traders track a small watchlist instead of the whole market.
- **Waterfall** — A rapid series of drops where each fall triggers more selling, like price falling down steps. Waterfall declines often come from stop losses and margin calls firing one after another.
- **Weak Hands** — Traders who bail out at the first sign of trouble, selling into small dips. Price often shakes out weak hands right before a move — strong hands are the ones with a plan they can actually hold.
- **Wedge** — A chart pattern where price swings get narrower between two slanted lines, squeezing like a wedge. It often shows a move is running out of steam and may reverse or break out.
- **Weekly Options** — Option contracts that expire in about a week, listed with expirations on multiple days each week for popular stocks and indexes. Their short life makes time decay very fast.
- **Weighting** — How much influence each stock has inside an index or fund. In the S&P 500, bigger companies count more, so Apple moving 1% shifts the index far more than a small company moving 1%.
- **Whipsaw** — When price suddenly reverses direction right after moving the other way, trapping traders who just entered. Choppy markets whipsaw traders with repeated small losses.
- **Wick** — The thin line sticking out of the top or bottom of a candlestick, showing how far price traveled beyond the candle's body. A long lower wick means buyers pushed price back up; a long upper wick means sellers pushed it back down.
- **Wide Market** — A market with a big gap between the bid and ask prices, usually in thin, unpopular stocks or options. Trading wide markets is expensive — you lose a chunk to the spread the moment you enter.
- **Window Dressing** — When fund managers buy winning stocks and dump losers right before reporting their holdings, so the portfolio looks smarter than it was. It is cosmetic, and it happens near the end of each quarter.
- **Winner's Curse** — The tendency for the person who wins an auction — or chases a hot stock everyone wants — to have overpaid. Winning the bidding war often means you paid more than the thing was worth.
- **Working Order** — An order you have placed that has not filled yet and is still active, like a limit order waiting for its price. It stays working until it fills, you cancel it, or it expires.
- **Writer (Option Writer)** — The person who sells an option contract and collects the premium. The writer takes on the obligation: a call writer may have to sell shares at the strike price.

Y

- **Year-over-Year (YoY)** — Comparing a number to the same period one year earlier, like this quarter's sales versus the same quarter last year. It removes seasonal effects and shows true growth.
- **Year-to-Date (YTD)** — A measurement from January 1 to today. If a stock is "up 12% YTD," it has gained 12% since the start of the year.

- **Yield** — The income an investment pays you, shown as a percentage of its price. A stock priced at $100 that pays $3 a year in dividends has a dividend yield of 3%.
- **Yield Curve** — A line showing interest rates for bonds of different lengths, from months to 30 years. Normally longer bonds pay more; when short-term rates rise above long-term ones, economists watch closely because it has often preceded recessions.
- **Yield Spread** — The difference in yield between two bonds — for example, a risky corporate bond versus a safe Treasury. A widening spread means investors are demanding more pay for risk, which can be an early stress warning.
- **Yield to Maturity (YTM)** — The total yearly return you would earn if you bought a bond at today's price and held it until it matures, collecting every payment. It lets you compare bonds with different prices and coupons fairly.

Z

- **Zero DTE (0DTE)** — Options that expire today, on the same day you trade them ("DTE" means days to expiration). They can move from cheap to worthless in minutes, so they are extremely risky and decay incredibly fast.
- **Zero-Coupon Bond** — A bond that pays no regular interest; instead you buy it at a discount and receive the full face value at maturity. The gap between your price and the face value is your return.
- **Zero-Sum Market** — A market where one trader's gain is exactly another trader's loss, like futures and options. For every winner there is a loser on the other side of the trade, before fees.
- **Zone** — A price area — rather than one exact line — where buying (demand zone) or selling (supply zone) is expected to show up. Traders draw zones because real buying and selling happens across ranges, not at single pennies.



AA-25

QUICK REFERENCE CHEAT SHEETS

Order types, Greeks, futures specs, and market hours — one-glance tables.

Alpha Academy reference series · Team Alpha Trading

Quick Reference Cheat Sheets

Some pages you read once. These pages you will come back to hundreds of times. This document collects the facts traders look up constantly — order types, candlestick signals, the options Greeks, futures contract values, loss math, market hours, and account types — into simple tables you can scan in seconds.

You do not need to memorize any of this today. Each table is explained in full in its own chapter elsewhere in Alpha Academy. This is the shortcut version: when you are mid-lesson or mid-trade and think "wait, what does that one do again?" — start here. If a term in a table is new to you, the **Alpha Trading Glossary** has a plain-language definition for every single one.

> **NOTE**
> Numbers that come from exchanges and brokers — fees, margin requirements, some contract details, and trading-hour exceptions around holidays — can change over time. The values below are the standard, textbook figures. Always confirm the current number with your broker or the exchange before you trade.

Order Types at a Glance

An **order** is the instruction you give your broker to buy or sell. Choosing the right order type is how you control the price you get and the risk you take.

Order Type	What It Does	When to Use It
---	---	---
Market order	Buys or sells right now at the best available price	When getting in or out matters more than the exact price
Limit order	Buys or sells only at your price or better	When you refuse to pay more (or accept less) than a set price
Stop order	Sleeps until price hits your stop price, then becomes a market order	To limit a loss automatically, or to enter when price breaks a level
Stop-limit order	At the stop price, becomes a limit order instead of a market order	When you want a trigger but will not accept a worse price than your limit
Trailing stop	A stop that follows the price by a set amount or percent as it moves in your favor	To lock in gains while giving a winning trade room to run

Candlestick Signals at a Glance

A **candlestick** is a picture of one period of trading — a day, an hour, five minutes — showing where price opened, where it closed, and how far it traveled in between. Single candles and small groups of candles form **patterns** traders watch for clues about what might happen next. A pattern is a clue, never a promise: traders wait to see what the *next* candles do before acting.

Signal	What It Looks Like	What Traders Watch Next
---	---	---
Hammer	Small body at the top, long tail below, after a fall	A strong candle closing up next — buyers may be stepping in
Shooting star	Small body at the bottom, long wick above, after a rise	A weak candle closing down next — buyers may be exhausted
Doji	Open and close at almost the same price, like a plus sign	Indecision — the next candle's direction matters more than usual
Bullish engulfing	A green candle whose body completely covers the red candle before it	Follow-through buying after the pattern
Bearish engulfing	A red candle whose body completely covers the green candle before it	Follow-through selling after the pattern
Morning star	Three candles: big red, small pause, big green	A reversal up after a decline, confirmed by rising prices
Evening star	Three candles: big green, small pause, big red	A reversal down after a climb, confirmed by falling prices
Three white soldiers	Three strong green candles in a row, each closing higher	Strong buying — but also watch for the move getting overheated

The Greeks at a Glance

Option prices move for several reasons at once, and traders give each reason a name borrowed from the Greek alphabet. These are **the Greeks**. Each one measures how sensitive an option's price is to one thing changing. You met them in the options chapters; here is the one-line version. Remember that one standard option contract controls 100 shares, so a Greek measured per share gets multiplied by 100 in real dollars.

Greek	What It Measures	Option Buyers Generally Want	Option Sellers Generally Want
---	---	---	---
Delta	How much the option price moves when the stock moves $1	The stock to move their way — up for calls, down for puts	The stock to stay still or move against the buyer
Gamma	How fast delta itself grows as the stock moves	Big, fast moves — their delta grows in their favor	Calm, slow prices — delta stays small and predictable
Theta	How much value the option loses each day just from time passing	A big move soon, before the daily drip eats their premium	Quiet days, one after another — time passing pays them

Greek	What It Measures	Option Buyers Generally Want	Option Sellers Generally Want
Vega	How much the price moves when expected future swings (implied volatility) change	Implied volatility to rise — options get more valuable	Implied volatility to fall — options get cheaper to buy back
Rho	How much the price moves when interest rates change	Matters mainly on options many months out; small either way short term	The same — a minor factor for most everyday trades

Futures Contracts at a Glance

A **futures contract** is an agreement to buy or sell something — a stock index, gold, oil — at a set price on a future date. Traders mostly use them to bet on price direction. Every contract has a fixed **point value**: how many dollars you gain or lose when the price moves one full point. The smallest allowed move is a **tick**. Learn the values for your contract before you trade it — in futures, size mistakes are expensive mistakes.

Contract	Trades On	$ per Point	$ per Tick
---	---	---	---
ES (E-mini S&P 500)	CME	$50	$12.50 (tick = 0.25)
MES (Micro E-mini S&P 500)	CME	$5	$1.25 (tick = 0.25)
NQ (E-mini Nasdaq-100)	CME	$20	$5.00 (tick = 0.25)
MNQ (Micro E-mini Nasdaq-100)	CME	$2	$0.50 (tick = 0.25)
YM (E-mini Dow)	CME	$5	$5.00 (tick = 1.0)
RTY (E-mini Russell 2000)	CME	$50	$5.00 (tick = 0.10)
GC (Gold)	CME	$100	$10.00 (tick = 0.10)
CL (Crude Oil)	CME	$1,000	$10.00 (tick = 0.01)

Notice the micro contracts — MES, MNQ — move in the same markets as their big brothers at one-tenth the dollar size. That is exactly why beginners start there.

Options Outcomes at Expiration

Options eventually reach their **expiration date** — the day the contract ends. The table below shows the best and worst possible results for the four basic positions when a contract expires. The **breakeven** is the stock price where you neither make nor lose money. Example used everywhere in this school: a $50 strike with a $2.50 premium has a call breakeven of $52.50 and a put breakeven of $47.50.

Position	Maximum Gain	Maximum Loss	Breakeven at Expiration
---	---	---	---
Long call (you bought a call)	Unlimited — the stock can keep rising	The premium you paid, nothing more	Strike price + premium
Long put (you bought a put)	Strike price − premium, if the stock fell all the way to $0	The premium you paid, nothing more	Strike price − premium
Short call (you sold a call)	The premium you received	Unlimited — the stock can keep rising	Strike price + premium
Short put (you sold a put)	The premium you received	Strike price − premium, if the stock fell all the way to $0	Strike price − premium

Read the pattern in the table: **buyers risk only what they paid; sellers collect a small, fixed payment and accept the big risk.** That trade-off is the heart of options.

The Loss-Recovery Table

Losing money is mathematically harder to undo than it looks, because percentages do not cancel out. If you lose 50% of your account, a 50% gain does *not* get you back — you would be applying that gain to a smaller pile of money. This table shows what a loss really costs. Traders keep it nearby for a reason.

If You Lose	You Need This Gain Just to Break Even
---	---
5%	5.3%
10%	11.1%
20%	25%
25%	33.3%
33%	49.3%
50%	100%
75%	300%
90%	900%

Work one by hand: an account falls from $1,000 to $500 — a 50% loss. To climb from $500 back to $1,000, the account must *double* — a 100% gain. Small losses are errands; big losses are expeditions. Protect the account accordingly.

Market Hours at a Glance

Different markets keep different hours. All times below are Eastern Time (ET), the timezone US markets run on. Stock market hours apply Monday through Friday, except market holidays.

Market	Hours (ET)	Schedule
---	---	---
US stocks — regular session	9:30 AM – 4:00 PM	Monday–Friday
US stocks — pre-market	Commonly 4:00 AM – 9:30 AM	Monday–Friday; exact hours depend on your broker
US stocks — after hours	4:00 PM – 8:00 PM	Monday–Friday; exact hours depend on your broker
Futures (CME Globex)	6:00 PM – 5:00 PM the next day, with a daily break from 5:00–6:00 PM	Sunday evening through Friday — nearly 24 hours
Forex (currencies)	Opens Sunday ~5:00 PM, closes Friday ~5:00 PM	24 hours a day, 5 days a week
Crypto	Never closes	24 hours a day, 7 days a week

A warning worth its row: pre-market and after-hours sessions have far fewer buyers and sellers, so prices jump around more and orders can fill at surprisingly bad prices. Beginners belong in the regular session.

Account Types at a Glance

Your **brokerage account** is the account you trade from, and it comes in a few basic flavors. The full comparison lives in the accounts chapter; here is the one-line version of each.

Account	In One Line	Good to Know
---	---	---
Cash account	You trade only with money you have deposited and that has settled	You can never owe the broker money — the safest place to learn
Margin account	The broker lends you money to trade bigger, and charges interest on the loan	The loan can amplify losses as easily as gains, and the broker can demand repayment
IRA (retirement account)	A tax-advantaged account meant for retirement savings	Tax benefits come with rules and penalties for early withdrawal — and risky strategies are usually restricted

> **NOTE**
> Account rules and tax treatment are educational summaries only — not financial, tax, or legal advice. Tax law changes and personal situations differ, so talk to a qualified professional before making account or tax decisions.

Keep This Close

That is the whole cheat sheet set: orders, candles, Greeks, futures values, expiration outcomes, loss math, hours, and accounts. Print it, bookmark it, keep it beside your screen. The facts on these pages are the ones that come up every single trading day — and now you know where they live.

> **TIP**
> When a number in these tables decides a real trade — a futures point value, a breakeven, a margin figure — slow down and verify it against your broker's screen before you click. Ten seconds of checking has saved more accounts than any strategy ever written.



CU-13

THE MARKET ALMANAC

Every recurring event — and the Numbers That Matter.

Curriculum & Assessment · Team Alpha Trading

The Market Almanac — Events, Seasons & the Numbers That Matter

Some days on the market are ordinary. Some days, a single report lands at 8:30 in the morning and the whole market jumps before you finish your coffee. This document is your calendar for those days — and your formula sheet for every day.

Part 1 walks through the recurring events that move markets on a schedule: inflation reports, Federal Reserve decisions, jobs numbers, expiration days, earnings season, and the year-end games big funds play. For each one you get what it is, when it lands, who it hits hardest, and a checklist for trading it — or standing aside from it.

Part 2, **Numbers That Matter**, collects every key formula from across Alpha Academy in one place: how to size a position, how losses recover, option breakevens, spread math, expected move, expectancy, and the futures point-value table. When you need a number mid-week, this is the page you open.

> **NOTE**
> Everything here is education, not financial advice. Event dates follow the standard US schedules, but exact dates are published each year by the Bureau of Labor Statistics, the Federal Reserve, and the exchanges — confirm the current calendar before you plan around any single date.

Part 1 — The Event Calendar

The Year at a Glance

Event	When it lands	Hits hardest
CPI (inflation report)	Monthly, usually 8:30 AM ET	0DTE options, index futures
FOMC (Fed decision)	8 times a year, 2:00 PM ET	Everything, all at once
Jobs report (NFP)	Usually the first Friday, 8:30 AM ET	Index futures, 0DTE options
OPEX (monthly expiration)	Third Friday of the month	Options near big strikes
Quad witching	Third Friday of Mar, Jun, Sep, Dec	Index options and futures
Earnings season	Starts ~2 weeks after each quarter ends	Single stocks, swing traders
Index rebalancing	Quarterly (S&P), June (Russell)	Stocks being added or dropped
Year-end effects	November through December	Losers (tax selling), winners (window dressing)

CPI — The Inflation Report

What it is. The **Consumer Price Index (CPI)** is the government's monthly measure of how much more expensive everyday life got — food, rent, gas, insurance, all blended into one number. Traders watch it because inflation drives what the **Federal Reserve** (the Fed, the US central bank) does with interest rates. Hot inflation means the Fed may keep rates high or raise them; cooling inflation gives the Fed room to cut. Rates steer the whole market, so this one number can move everything.

When it lands. Monthly, usually at **8:30 AM ET**, before the stock market opens — released by the Bureau of Labor Statistics (BLS).

Who it hits. Index futures and 0DTE options first and fastest. The first minutes after a surprise print are the most violent of the month: spreads widen, prices gap, and stops get jumped.

Trade it or stand aside?

- Know the exact morning it's coming — never be surprised by CPI day.
- Expect the first move to reverse: the opening spike after a surprise often retraces hard.
- If you trade it, size down — the same stop distance gets hit far more easily.
- Standing aside until 10:00 AM, when the dust settles, is a complete and respectable strategy.

FOMC — The Fed Decides

What it is. The **Federal Open Market Committee (FOMC)** is the Fed's rate-setting group. Eight times a year it announces whether the federal funds rate — the base interest rate that influences every loan, mortgage, and credit card in the country — goes up, down, or stays. The surprise is rarely the decision itself (it's usually expected) but the *statement's wording* and the Chair's press conference answers, which hint at what comes next.

When it lands. Eight scheduled meetings a year. The statement drops at **2:00 PM ET**; the Chair's press conference follows at **2:30 PM ET**.

Who it hits. Everyone. Stocks, bonds, futures, options, gold, crypto — all repriced in the same minutes, often whipping up, then down, then up again before picking a direction.

Trade it or stand aside?

- The danger window is 2:00–3:00 PM. Volatility in that hour is the widest of the month.
- Implied volatility is pumped up before the announcement and crushes right after — bought options can lose value even when price moves your way.
- Many professionals simply flatten before 2:00 PM and let others gamble on the wording.
- If you trade the afternoon, wait for the press conference — the second move is often the real one.

The Jobs Report (NFP)

What it is. The **Employment Situation report**, nicknamed **NFP** for its headline number, **nonfarm payrolls** — how many jobs the US economy added or lost last month, plus the unemployment rate. Strong jobs mean a strong economy (good for stocks) but also a Fed that can keep rates high (bad for stocks). That two-sided logic is why the reaction is often messy.

When it lands. Monthly, usually the **first Friday of the month at 8:30 AM ET**, from the Bureau of Labor Statistics.

Who it hits. Same profile as CPI: index futures pre-market, then 0DTE options from the open. Bond yields jump instantly, and rate-sensitive sectors (tech growth stocks, homebuilders, banks) swing hardest.

Trade it or stand aside?

- It's an 8:30 AM release — futures traders see the move a full hour before the stock market opens.
- Wage growth inside the report matters almost as much as the jobs number — fast wage growth is inflation fuel.
- Friday expirations plus an NFP morning is maximum 0DTE chaos; beginners should watch, not trade.
- Revisions to prior months are printed in the same report and can flip the story mid-morning.

OPEX — Monthly Options Expiration

What it is. Standard monthly stock and index options expire on a fixed day each month. That day is called **OPEX**. Huge numbers of contracts die at once, and the hedging around them can tug prices toward heavily-traded strike prices into the close — an effect traders call **pinning**, because price seems pinned to a strike. (You met the hedging engine behind this in AA2-14 and AA2-15: dealers adjusting hedges as expiration approaches.)

When it lands. The **third Friday of each month**. If that Friday is a market holiday, expiration usually moves to Thursday — check the exchange calendar.

Who it hits. Options traders holding that month's contracts, and anyone trading index options in the final hours, when gamma — the speed at which an option's sensitivity changes — is at its maximum.

Trade it or stand aside?

- Know which of your open options expire this Friday — every month, no exceptions.
- Expect strange, choppy price action near big open-interest strikes late in the day.
- Weekly and daily expirations have made "expiration effects" a daily reality on the big indexes, but the monthly OPEX is still the largest.
- Rolling or closing positions *before* expiration week removes the whole problem.

Quad Witching

What it is. Four times a year, several contract types expire on the *same* day: stock options, index options, and index futures. (The fourth member of the original "quad" — single-stock futures — no longer trades in the US, but the name stuck.) The result is one of the highest-volume days of the year, with a chaotic final hour as massive positions settle, roll, or close.

When it lands. The **third Friday of March, June, September, and December** — it is OPEX, supersized.

Who it hits. Index futures and index options traders most; but the volume surge and end-of-day price swings reach individual stocks too, especially index members.

Trade it or stand aside?

- Quad witching days have a split personality: often quiet and range-bound midday, then wild in the final hour.
- Settlement prints can move a stock for reasons that have nothing to do with its business — don't take the last hour personally.

- Futures traders: your expiring contract's last trading arrangements differ by product — know yours and roll on time.
- When in doubt, finish early. The day's strangest moves happen after most traders have gone home.

Earnings Season

What it is. Public companies must report their results — revenue, profit, and guidance (management's outlook) — every quarter. The reports cluster into **earnings season**: roughly six weeks when hundreds of companies print, starting with the big banks. A single report can gap a stock 10% or more overnight, up or down, because the stock is being repriced on real news.

When it lands. Seasons begin about **two weeks after each quarter ends** — mid-January, mid-April, mid-July, mid-October — and run about six weeks. Most reports drop **before the open or after the close**.

Who it hits. Swing and position traders above all: you hold through the print, and stops do not protect against gaps (a stop becomes a market order at the open, filled at the gapped price). Options traders face **IV crush** — implied volatility inflates before the report and collapses after, shrinking option values even on a correct directional call (AA2-06).

Trade it or stand aside?

- Keep a written list of every holding's next earnings date. Never be surprised by your own portfolio.
- Decide *before* the print: hold, reduce, or exit. Deciding during the gap is not deciding — it's reacting.
- If you buy options into earnings, you are betting on a move bigger than the expected move (see Part 2), not just a direction.
- Beginners: earnings season is for watching and journaling how stocks react, until the tuition is cheap.

Index Rebalancing

What it is. Indexes like the S&P 500 and the Russell 2000 are lists, and lists get edited. Companies that grow get added; companies that shrink get dropped. Every index fund on Earth must then buy the additions and sell the deletions — forced, price-insensitive trading in size, announced in advance. **Rebalancing** is the day those edits take effect.

When it lands. S&P 500 changes are announced as needed, with the big quarterly reviews effective in **March, June, September, and December**. The Russell indexes rebuild their lists **once a year, traditionally in late June**, with the preliminary add/drop lists published weeks ahead.

Who it hits. The specific stocks being added or dropped — additions often pop on announcement and again at the effective close; deletions sag. Index futures and ETF traders feel it as heavy closing volume rather than chaos.

Trade it or stand aside?

- The announcement move and the effective-date move are two different events — know which one you're looking at.
- The effective day's closing auction is enormous; prices can print oddly in the final minutes.
- Owning a stock *because* it's being added is a trade about fund flows, not about the company — size and exit accordingly.
- For long-term holders, rebalancing is mostly noise: your index fund handles it for you.

Year-End — Window Dressing & Tax-Loss Selling

What it is. Two seasonal flows collide in November and December. **Tax-loss selling**: investors sell losing positions before December 31 to book the loss against their taxes, pushing the year's losers down further late in the year. (The **wash sale rule** still applies: buy a substantially identical security within 30 days before or after the sale — a 61-day window — and the loss is disallowed.) **Window dressing**: fund managers tidy their portfolios before year-end reports, buying the year's winners and selling losers so their published holdings look smart.

When it lands. Tax-loss pressure builds through **November and December**, with the last trading day of the year as the hard deadline. Window dressing concentrates in the **final days of December** (and, in smaller form, at every quarter-end).

Who it hits. The year's biggest losers get sold hardest, then often bounce in January when the pressure lifts — the flip side swing traders watch for. The year's winners get a cosmetic bid into year-end.

Trade it or stand aside?

- A beaten-down stock falling in December may be facing tax selling, not new bad news — context matters.
- January bounces in former losers are a tendency, not a promise; the company's problems may be real.
- If you harvest losses yourself, mind the wash sale window and keep records — and get tax questions answered by a professional.
- Holiday weeks are thin: low volume, early closes, wide spreads. Smaller size or no size is a legitimate year-end position.

> **TIP**
> Build your own one-page calendar each January: CPI and NFP Fridays, FOMC days, OPEX Fridays, quad witching, and the earnings dates of everything you own. Every event in this section stops being a surprise the moment it's written down.

Part 2 — Numbers That Matter

Position Sizing — The Master Formula

One formula decides how big every trade is:

shares = dollars you are risking ÷ (entry price − stop price)

Decide the dollars first, from your account and your risk rule. The school's standard starting rule is risking about **1% of the account per trade**. On a $10,000 account, that's $100 of risk. You want to buy at $50 with a stop at $48, so each share risks $2: $100 ÷ $2 = **50 shares**. The position costs $2,500, but the amount you actually stand to lose at the stop is $100 — the position size and the risk are different numbers, and the risk is the one that matters.

The Loss-Recovery Table

Losses are not symmetrical. Lose 10% and you need more than 10% just to get back to even, because the gain is earned on a smaller account:

If you lose	You need to gain	Just to get back to
10%	+11.1%	Even
25%	+33.3%	Even
50%	+100%	Even
75%	+300%	Even
90%	+900%	Even

This table is the entire argument for small position sizing and hard stops. A −50% hole requires doubling your money to escape. Professionals fear the deep hole far more than they chase the big win.

Options Breakevens — Where a Bought Option Starts Winning

One standard option contract controls **100 shares**, so every premium is multiplied by 100: a $2.50 premium costs **$250 per contract**, and that full premium is the **maximum loss** on a bought option.

- **Call breakeven = strike + premium.** Buy the $100 call for $2.50 (paying $250): the stock must reach **$102.50** at expiration before you profit.
- **Put breakeven = strike − premium.** Buy the $100 put for $2.50: the stock must fall to **$97.50** at expiration before you profit.

Between today's price and the breakeven, the option can still gain or lose value before expiration — but at expiration, these are the lines that matter.

Spread Math — Max Gain and Max Loss, Before You Enter

A **spread** is two options traded together, and its great virtue is that both edges of the outcome are known on day one. Prices below are per share; multiply by 100 for the dollars on one spread.

- **Debit spread** (you pay to enter, e.g. buy the $100 call, sell the $105 call for a net $1.80 debit): **max loss = the debit = $180**. **Max gain = width − debit = $5.00 − $1.80 = $3.20 = $320**, reached if the stock finishes at or above $105.
- **Credit spread** (you are paid to enter, e.g. sell the $95 put, buy the $90 put for a net $1.20 credit): **max gain = the credit = $120**. **Max loss = width − credit = $5.00 − $1.20 = $3.80 = $380**, reached if the stock finishes at or below $90.

Notice the habit: with any spread, state the max loss out loud before entering. If you can't, you don't understand the trade yet.

The Iron Condor

An **iron condor** is two credit spreads at once — a put spread below the price and a call spread above it — built for a stock you expect to stay in a range. You collect credit from both sides.

- **Max gain = total credit received.** Collect $1.20 on the put side and $1.10 on the call side: max gain = **$2.30 = $230** per condor, kept in full if price finishes between the two short strikes.
- **Max loss = the wider wing width − total credit.** With 5-point wings: $5.00 − $2.30 = **$2.70 = $270** per condor. Only one side can lose at expiration — price can't finish below the put spread *and* above the call spread — so you never add both wings together.

Expected Move — How Far the Market Thinks It Moves

Options prices contain a forecast: the move the market expects over a period, called the **expected move**. From any option's implied volatility (IV), the formula is:

expected move % = IV × √(days ÷ 365)

Example: a stock with IV of 20% and 30 days to expiration: √(30 ÷ 365) ≈ 0.287, so the expected move is 20% × 0.287 ≈ **5.7%**. On a $200 stock, that's about **$11.50** in either direction. Use it constantly: it prices earnings bets (AA2-06), frames 0DTE days (AA3-03), and tells you whether a move was ordinary or genuinely surprising.

Expectancy — Your Edge in One Number

Expectancy is what a trade is worth on average, over many repetitions:

expectancy = (win rate × average win) − (loss rate × average loss)

Win 40% of the time, average win +$300, average loss −$150: (0.40 × $300) − (0.60 × $150) = $120 − $90 = **+$30 per trade**. A system that loses more often than it wins can still be profitable — and a system that wins 70% of the time can still bleed if the losses are huge. This is why the school grades your journal by expectancy, not by win rate.

The VIX and the Month Ahead

The **VIX** is the S&P 500's implied volatility, quoted as an *annual* number. To turn it into the move expected over the next month, divide by **√12 ≈ 3.46**:

one-month expected move % ≈ VIX ÷ √12

A VIX of 20 therefore means roughly 20 ÷ 3.46 ≈ **5.8%** expected over the next 30 days — the derivation you met in AA2-05. Remember the standing warnings: the VIX itself is an index, **not something you can buy**

directly, and products that track volatility long-term tend to decay because of how their futures contracts roll (contango, in AA2-05's terms).

Futures Point Values

In futures, money is counted in **points**, and every contract has its own dollar value per point. Wrong point value, wrong math — memorize your instrument's row before you trade it.

Contract	Dollars per point	Minimum tick	Tick value
ES (S&P 500)	$50	0.25 point	$12.50
MES (Micro ES)	$5	0.25 point	$1.25
NQ (Nasdaq-100)	$20	0.25 point	$5.00
MNQ (Micro NQ)	$2	0.25 point	$0.50
GC (Gold)	$100	0.10 point	$10.00
MGC (Micro Gold)	$10	0.10 point	$1.00
CL (Crude Oil)	$1,000	0.01 point	$10.00
MCL (Micro Crude)	$100	0.01 point	$1.00

So a 10-point ES move is 10 × $50 = **$500 per contract**; the same 10 points on MES is **$50**. And one ES contract at an index level of 6,000 controls 6,000 × $50 = **$300,000** of exposure — the leverage fact from AA3-06 that should sit behind every futures decision.

R Multiples — Measuring Every Trade the Same Way

R is your planned risk on a trade — the dollars between entry and stop, after sizing. Express every result in R and trades of different sizes become comparable:

- Risk $100, make $250 → **+2.5R**. Risk $100, lose $100 → **−1R**. Risk $100, lose $60 because you exited early → **−0.6R**.
- A run of trades reads like a report card: +2.5R, −1R, −1R, +3R = **+3.5R total**, whatever the account size was.
- Your stop defines R *before* the trade. If there was no stop, there was no R — and the trade can't be graded.

R multiples are how the Paper Challenge (PP-09) and the Capstone grade you: not on dollars, which depend on account size, but on how many units of planned risk you gained or lost.

Chapter Summary

- The market has a rhythm section: CPI and the jobs report at 8:30 AM ET, the FOMC at 2:00 PM ET, OPEX on the third Friday, quad witching four times a year, earnings seasons, rebalancing days, and year-end flows. None of them should ever surprise you.
- Every event has the same three questions: when exactly does it land, which arena does it hit hardest, and is your edge good enough to trade it — or is standing aside the trade?

- Position sizing is one formula: shares = dollars risked ÷ distance to the stop. Risk is chosen first; size is computed second.
- Losses compound against you: −25% needs +33.3%, −50% needs +100%. Small losses are cheap; deep holes are nearly permanent.
- Options math anchors: premium × 100, call breakeven = strike + premium, put breakeven = strike − premium, bought option max loss = premium paid.
- Spreads and condors tell you their max gain and max loss before you enter — credit spread max loss = width − credit; condor max loss = widest wing − total credit.
- Expected move = IV × √(days ÷ 365); the VIX converts to a monthly move by dividing by √12.
- Expectancy — not win rate — is the number that decides whether a system lives.
- Futures are counted in points with fixed dollar values (ES $50, MES $5, NQ $20, MNQ $2, GC $100, CL $1,000 per point), and every trade gets graded in R.

> **RULE**
> The calendar tells you when the storms are scheduled; the numbers tell you how big your boat is. Check both before you leave the dock — a trader who knows the date and the math is never truly surprised.



PP-13

POSTER
CANDLESTICKS

Print it. Pin it. Every major candlestick pattern in words, at a glance.

Alpha Academy Practice Pack · Team Alpha Trading

Poster: Candlestick Patterns

Pin this by your charts. A **candlestick** is one bar that shows where price opened, went high, went low, and closed for that period. **Support** is a price area where falls have stopped before; **resistance** is where rises have stalled. Patterns mean the most AT those areas.

Single Candles

Pattern	What it looks like	What it can mean	Where it matters
Doji	Open and close almost equal; cross shape	Indecision — buyers and sellers tied	After a long run, either direction
Hammer	Tiny body on top, long lower wick (the thin line below)	Sellers pushed down, buyers fought back	At support, after a fall
Inverted Hammer	Tiny body at bottom, long upper wick	Buyers tried to push up	At support, after a fall
Shooting Star	Tiny body at bottom, long upper wick	Buyers pushed up, sellers slammed it down	At resistance, after a rise
Marubozu	All body, almost no wicks	One side in total control	Mid-trend, shows strong momentum
Spinning Top	Small body, wicks both sides	Indecision, momentum fading	After a strong move

Pairs and Triples

Pattern	What it looks like	What it can mean	Where it matters
Bullish Engulfing	Green candle's body fully covers the prior red body	Buyers took over	At support, after a fall
Bearish Engulfing	Red candle's body fully covers the prior green body	Sellers took over	At resistance, after a rise
Piercing Line	Green candle closes past the halfway point of the prior red candle	Buyers reclaiming ground	At support, after a fall
Dark Cloud Cover	Red candle opens above, closes past halfway down the prior green candle	Sellers pushing back	At resistance, after a rise
Morning Star	Big red, then a small indecision candle, then a big green	A bottom forming	At support, after a downtrend
Evening Star	Big green, then a small indecision candle, then a big red	A top forming	At resistance, after an uptrend
Harami	Small candle sits inside the prior big candle's body	Momentum is stalling	After a strong move
Tweezer Bottom	Two candles share the same low	That price got defended twice	At support
Tweezer Top	Two candles share the same high	That price got rejected twice	At resistance

NOTE
Patterns are hints, not guarantees. A hammer in the middle of nowhere means little — context (support, resistance, trend) and confirmation from the next candle are what make a pattern worth acting on.



PP-14

POSTER
CHART PATTERNS

Continuation and reversal patterns — shape, bias, and the trigger.

Alpha Academy Practice Pack · Team Alpha Trading

Poster: Chart Patterns

Larger shapes price draws over many candles. A **bias** is which direction the pattern leans. The **trigger** is the price break that says the pattern is actually in play — no break, no trade.

Continuation Patterns — the trend takes a breath

Pattern	Shape in words	Bias	The trade trigger
Bull Flag	Sharp rise (the pole), then a small downward drift in a narrow channel	Up	Break above the flag's top edge
Bear Flag	Sharp drop (the pole), then a small upward drift in a narrow channel	Down	Break below the flag's bottom edge
Pennant	Sharp move, then a tiny triangle that squeezes tighter	Same way as the move before it	Break out of the little triangle
Ascending Triangle	Flat top (resistance), rising bottom (higher lows)	Up	Break above the flat top
Descending Triangle	Flat bottom (support), falling top (lower highs)	Down	Break below the flat bottom
Symmetrical Triangle	Both sides squeeze toward each other	Follows the prior trend	Break of either edge, with the trend
Rectangle	Price bounces sideways between flat support and resistance	Same way as the move before it	Break of support or resistance

Reversal Patterns — the trend may be ending

Pattern	Shape in words	Bias	The trade trigger
Head & Shoulders	Three peaks; the middle is tallest; a **neckline** connects the dips	Down after an uptrend	Break below the neckline
Inverse Head & Shoulders	Head & Shoulders flipped upside down	Up after a downtrend	Break above the neckline
Double Top	Two peaks at about the same price — an "M"	Down	Break below the low between the peaks
Double Bottom	Two dips at about the same price — a "W"	Up	Break above the high between the dips
Triple Top	Three peaks at about the same price	Down	Break below the lowest dip between peaks
Triple Bottom	Three dips at about the same price	Up	Break above the highest peak between dips
Rising Wedge	Price climbs but the swings get narrower, leaning up	Down	Break below the wedge's lower edge
Falling Wedge	Price falls but the swings get narrower, leaning down	Up	Break above the wedge's upper edge

NOTE

The **measured move** rule of thumb: the height of the pattern (for Head & Shoulders, head down to neckline) is roughly how far price often travels after the break. It is a convention traders use for targets — an estimate, not a promise.



PP-15

POSTER
THE GREEKS

The five Greeks on one wall sheet — what buyers want, what sellers want.

Alpha Academy Practice Pack · Team Alpha Trading

Poster: The Greeks

The **Greeks** are numbers that measure how an option's price reacts to change. One standard contract controls 100 shares, so every Greek's dollar effect is the Greek × 100 per contract.

Greek	Plain meaning	If you BUY options you want	If you SELL options you want	Watch out for
Delta	How much the option gains per $1 move in the stock	High delta when you're sure of direction	Low delta — far-away strikes that likely expire worthless	Delta grows and shrinks as price moves
Gamma	How fast delta itself changes	High gamma near expiration = explosive moves	Low gamma — stability	Gamma makes positions swing wildly near expiration
Theta	How much value the option loses each day to time passing	Low theta — lots of time left	High theta — you collect the daily decay	Decay speeds up in the final days
Vega	How much the option gains per 1-point rise in implied volatility	Rising IV after you buy	Falling IV after you sell	Earnings IV crush (see below)
Rho	How much the option moves when interest rates change	Barely matters for short trades	Barely matters for short trades	Only matters on long-dated options

Implied Volatility (IV) in One Glance

- **IV** is the market's guess of how much the stock will move, baked into option prices.
- **IV high** = options are expensive. Same strike, same stock — you pay more for the same bet.
- **IV low** = options are cheap. Buyers pay less; sellers collect less.
- **IV crush**: right after earnings print, IV usually collapses — win or lose. A bought option can lose money even when the stock moves your way, because the expensive fear premium vanishes.

> **TIP**
> Theta is rent — the buyer pays it every day, the seller collects it.



PP-16

POSTER
THE RISK RULES

The ten rules and the loss-recovery table. Put it where you can see it while you trade.

Alpha Academy Practice Pack · Team Alpha Trading

Poster: The Risk Rules

Print it. Read it before every session. These rules exist because losses compound faster than gains — the table at the bottom proves it.

#	Rule	Why
1	**Risk only 1% of your account per trade**	Ten losses in a row still leave about 90% of your money
2	**Decide your exit before you enter**	A plan made calm beats a decision made scared
3	**Use a stop loss (an automatic exit order) on every trade**	One bad trade can never become an account-ending trade
4	**Never add money to a losing trade to "get back to even"**	Averaging down turns a small loss into a huge one
5	**Stop for the day after 2–3 losses**	Tilted traders dig holes; fresh traders don't
6	**Size by the stop, not by your gut**	Shares = dollars risked ÷ distance to the stop
7	**Never trade money you need for rent, bills, or debt**	Scared money makes scared decisions
8	**Write every trade in your journal**	What gets recorded gets fixed
9	**No trade is a must-take trade**	Cash is a position; the market is open tomorrow
10	**Survive first, profit second**	You cannot win a game you have been knocked out of

Why Losses Hurt More Than Gains Help

If you are down	You need this gain just to break even
10%	+11%
25%	+33%
50%	+100%
75%	+300%

> **SETUP**
> The 1% formula — shares to buy = (account size × 1%) ÷ (entry price − stop price). Example: ($10,000 × 1%) ÷ ($50 − $48) = $100 ÷ $2 = 50 shares.