CHART CODE ACADEMY

Decode The Market Code

HOW TO READ FIBONACCI RETRACEMENTS AND EXTENSIONS

KEY LEVELS EXPLAINED

A FREE STUDY RESOURCE BY CHART CODE

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What You Will Learn in This Guide

- Name the key retracement and extension levels (23.6%, 38.2%, 50%, 61.8%, 78.6%, 127.2%, 161.8%) and what each means
- Draw Fibonacci retracement correctly in an uptrend and in a downtrend
- Use Fibonacci extensions to plan profit targets
- Find confluence with support, resistance, moving averages and trendlines
- Build a trade plan with a stop and reward-to-risk, and understand the limits of Fibonacci analysis

What Are Fibonacci Retracements and Extensions?

> QUICK ANSWER
> **Fibonacci retracement** levels (23.6%, 38.2%, 50%, 61.8%, 78.6%) mark how far a pullback may travel back into a prior price move before the trend resumes. **Fibonacci extension** levels (61.8%, 100%, 127.2%, 161.8%) project where the next move may reach, and are used for profit targets. Traders treat the levels as *zones* to watch, not exact turning points.

The ratios come from the Fibonacci sequence, where each number is the sum of the previous two: 0, 1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89. Dividing a number by the next one gives about 0.618 (55 ÷ 89), by the one two places ahead gives about 0.382 (34 ÷ 89), and by the one three places ahead gives about 0.236 (21 ÷ 89). The 78.6% level is the square root of 0.618.

Cheat Sheet: Key Fibonacci Levels at a Glance

Level	Type	What it usually signals
23.6%	Retracement	Very shallow pullback; strong trend, buyers or sellers barely give ground
38.2%	Retracement	Healthy pullback in a strong trend; a common first entry zone
50%	Retracement	Not a Fibonacci ratio but widely watched; the midpoint of the move
61.8%	Retracement	The "golden ratio"; the deepest level where a normal trend pullback is often expected to hold
78.6%	Retracement	Deep pullback; last defence before the move is fully retraced
100%	Extension	Next leg equals the first leg (A to B); a common first target
127.2%	Extension	Common target in a strong trend
161.8%	Extension	Extended target when momentum is powerful

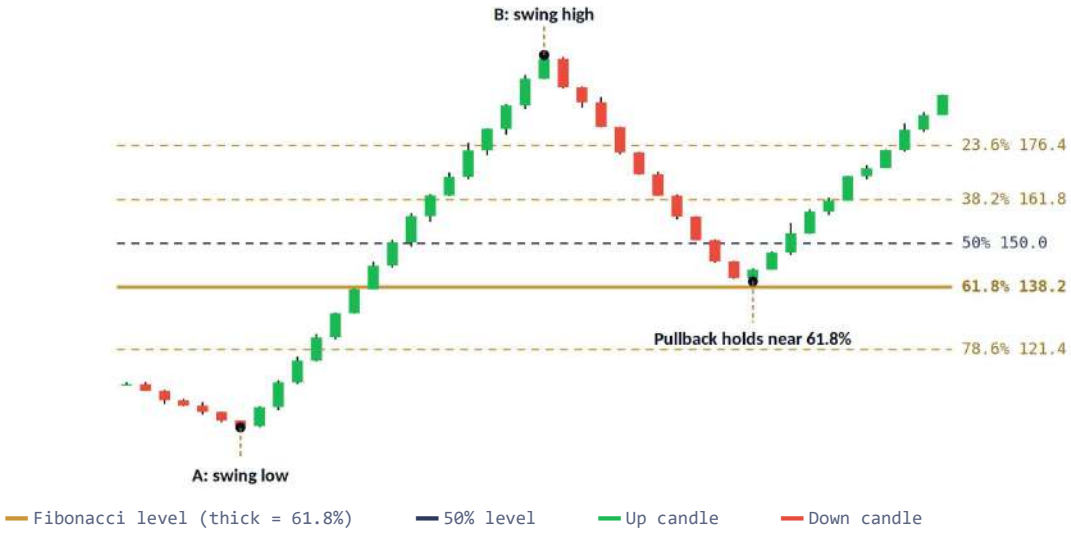
How Do You Draw Fibonacci Retracement Levels?

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Uptrend:    level = Swing high − (Swing high − Swing low) × ratio
Downtrend:  level = Swing low + (Swing high − Swing low) × ratio
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Pick a clear, significant swing: in an uptrend, the swing low where the move began and the swing high where it peaked. Draw the tool from the low to the high and the levels appear on their own.

Visualising It: Retracement in an Uptrend

The rally runs from A (100) to B (200). The pullback stalls near the 61.8% level at 138.2 and the uptrend resumes. Illustrative prices, not a live chart.



Worked example with a swing low of 100 and a swing high of 200, a range of 100:

Ratio	Calculation	Level
23.6%	200 − 100 × 0.236	**176.4**
38.2%	200 − 100 × 0.382	**161.8**
50%	200 − 100 × 0.500	**150.0**
61.8%	200 − 100 × 0.618	**138.2**
78.6%	200 − 100 × 0.786	**121.4**

Reading the depth of the pullback: a retracement that holds at 23.6% to 38.2% shows a strong trend; 50% to 61.8% is a normal pullback; a move past 78.6% suggests the trend is weakening; a close beyond the start of the swing (A) means the setup is invalid.

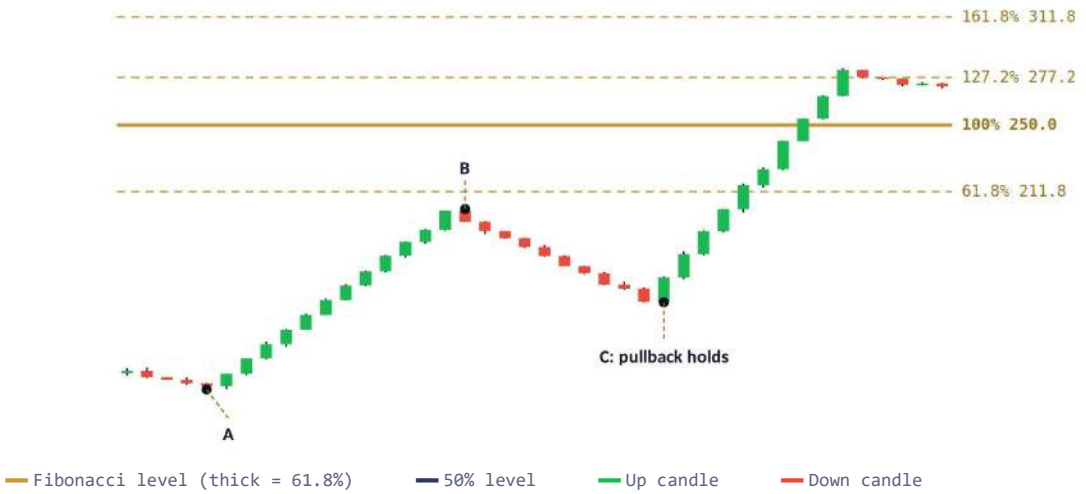
How Do You Use Fibonacci Extensions for Targets?

Extensions need three points: **A** (start of the move), **B** (end of the move) and **C** (the pullback low where the trend resumes). Levels are measured from C, using the size of the A to B move.

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Target = C + (B − A) × ratio   (uptrend; subtract for a downtrend)
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Visualising It: A-B-C Extension Targets

With A at 100, B at 200 and C at 150, price runs through the 100% target at 250 and on to the 127.2% target at 277.2. Illustrative prices, not a live chart.



Ratio	Calculation (A 100, B 200, C 150)	Target
61.8%	150 + 100 × 0.618	**211.8**
100%	150 + 100 × 1.000	**250.0**
127.2%	150 + 100 × 1.272	**277.2**
161.8%	150 + 100 × 1.618	**311.8**

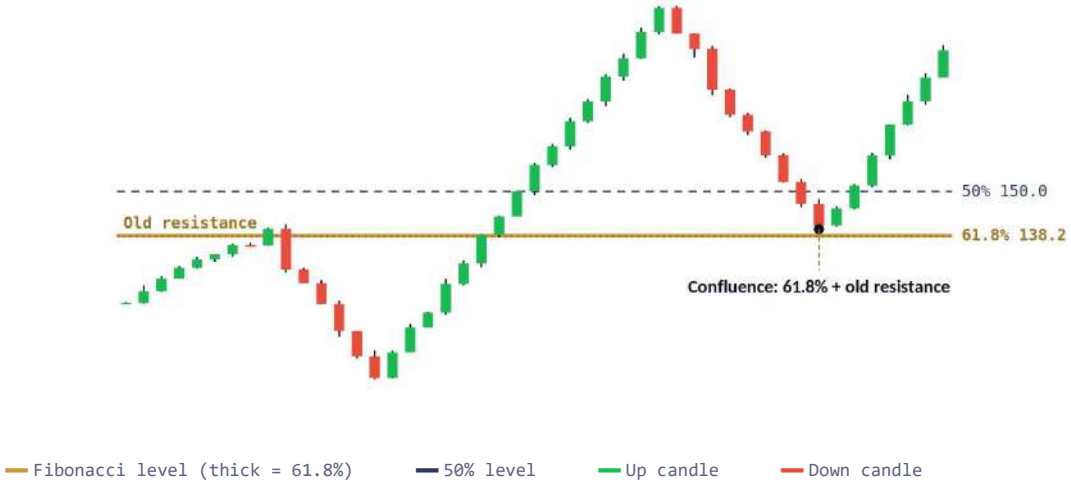
What Is Confluence and Why Does It Matter?

A Fibonacci level on its own is one opinion. When it lines up with other evidence at the same price, the zone carries more weight. This overlap is called **confluence**. Common partners for a Fibonacci level:

- **Former support or resistance**, especially a broken resistance that becomes support.
- **A rising moving average or trendline** passing through the zone.
- **A reversal candle** at the level, such as a Hammer or Bullish Engulfing from the **Candlestick Charts guide**.
- **A volume signature**, with pullback volume drying up and the bounce candle showing above-average volume, as in the **Volume Analysis guide**.

Visualising It: A Confluence Zone

The 61.8% level (138.2) sits at the same price as the former resistance (138). Price bounces from the zone where both agree. Illustrative prices, not a live chart.



How Do Fibonacci Levels Work in a Downtrend?

The logic is mirrored. Draw from the swing high to the swing low, and the retracement levels appear above the low. A bounce that stalls at 38.2% to 61.8% is a normal relief rally within the downtrend.

Visualising It: Retracement in a Downtrend

Price falls from 200 to 100, bounces to the 61.8% level at 161.8, stalls, and then makes new lows. Illustrative prices, not a live chart.



How Can You Build a Trade Plan Around Fibonacci?

One common structure, shown as an educational example and not a recommendation:

1. **Trend first.** Confirm the higher-timeframe trend, and only look for pullback entries in its direction.
2. **Mark the zone.** Draw the retracement from a significant swing and note where levels overlap other support or resistance.
3. **Wait for confirmation.** Look for a reversal candle closing at the zone, ideally with a volume clue.
4. **Place the stop.** Put the stop just beyond the next Fibonacci level or the pullback extreme, so you know the loss before entering.
5. **Set targets.** First target is usually the previous swing high (B), then extension levels such as 127.2% and 161.8%.

Check the reward-to-risk ratio before entering. If the distance to the first target is smaller than the distance to the stop, the setup is usually not worth taking.

What Are the Limits of Fibonacci Analysis?

- **It is subjective.** Different traders pick different swings and get different levels. Use clear, significant swings.
- **Levels are zones, not lines.** Price often overshoots or stops just short. Allow a small margin.
- **Evidence is mixed.** Part of the reaction comes from many traders watching the same levels. Nothing guarantees a bounce.
- **It suits trending markets.** In a sideways range the levels have little meaning.
- **Do not fit levels after the fact.** Drawing new swings until a level "works" is hindsight, not analysis.

Common Fibonacci Mistakes

01 **Drawing from insignificant swings** Small wiggles produce cluttered levels. Anchor to clear, major swing points.	02 **Treating levels as exact lines** Price reacts around a level, not to the decimal. Think in zones.	03 **Buying at a level with no confirmation** A touch is not a signal. Wait for a candle to close and show rejection.
04 **Using Fibonacci alone** Combine it with support and resistance, candles and volume for higher-quality setups.	05 **Applying it in a sideways market** Retracements need a trend to retrace. In a range the levels are noise.	06 **Ignoring invalidation** A close beyond the swing start means the idea failed. Exit and reassess.

📌 Combining Fibonacci with support, resistance, candles and volume is taught hands-on in our **MarketEdge Pro course** at Chart Code, offline in Boisar or live online anywhere in India.

Your Fibonacci Checklist

Run this five-point check before acting on any Fibonacci level:

✓	**Clear swing** Is the swing low and high obvious and significant on a meaningful timeframe?
✓	**Trend direction** Are you trading a pullback in the direction of the higher-timeframe trend?
✓	**Confluence** Does the level overlap prior support or resistance, a moving average or a trendline?
✓	**Confirmation** Has a candle closed with rejection at the zone, with supportive volume?
✓	**Defined risk and target** Do you know the stop, the first target and that the reward is larger than the risk?

Educational content only. This guide explains chart analysis and is not investment advice or a recommendation to buy or sell any security. Trading involves risk of loss; always use a defined stop-loss.

Practice Exercises: Apply It on Real Charts

Reading a concept is not the same as spotting it live. Work through these on the daily chart of any Nifty 50 stock, and treat the results as practice, not proof.

1	**Draw one uptrend swing** On a daily chart, draw from the swing low to the swing high. Note which retracement levels the pullback respected and which it ignored.
2	**Repeat in a downtrend** Draw from the swing high to the swing low on a falling chart. Confirm the levels now sit above the low.
3	**Mark the confluence** On the same chart, mark prior support or resistance and a moving average. Circle any Fibonacci level that overlaps them.
4	**Write a full trade plan** For one level, write the entry zone, the stop, the first extension target and the reward-to-risk ratio before looking at what happened next.

Common Questions

Q. Is 50% a real Fibonacci level?

Not strictly. The 23.6%, 38.2%, 61.8% and 78.6% ratios come from the Fibonacci sequence, while 50% comes from the idea that markets often retrace about half of a move. It is included on almost every Fibonacci tool because so many traders watch it.

Q. How do I draw Fibonacci retracement in an uptrend and a downtrend?

In an uptrend, draw from the swing low to the swing high; the levels then appear below the high. In a downtrend, draw from the swing high to the swing low; the levels appear above the low. Charting tools handle the direction once you click the two swing points.

Q. What is the difference between retracement and extension?

Retracement levels show how far a pullback may go back into the previous move, and are used to look for entries. Extension levels project beyond the previous move, using three points A, B and C, and are used to set profit targets.

Q. Does Fibonacci really work?

The evidence is mixed. Because many traders watch the same levels, price often reacts near them, but they are not guaranteed and can be drawn from many different swings. Treat Fibonacci levels as zones of interest, and act only with confirmation from candles, volume and other levels.

Q. Which timeframe is best for Fibonacci levels?

Any timeframe works, but levels drawn from daily and weekly swings carry more weight than levels from 5-minute swings, which are noisier. Many traders draw the levels on a higher timeframe and time the entry on a lower one.

Q. What is confluence in Fibonacci trading?

Confluence is when a Fibonacci level lines up with other evidence such as prior support or resistance, a moving average or a trendline. Overlapping signals mark a zone rather than a single line, and reactions at such zones tend to be more meaningful than at a Fibonacci level on its own.

Ready to Read Live Charts With Confidence?

Recognising the shape is step one. Reading it with trend, volume and risk management is step two. Chart Code Academy runs structured stock market courses — offline at our Boisar training centre, and live online for students anywhere in India — covering everything from these fundamentals to advanced Technical Analysis, F&O, and Smart Money Concepts.

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