Mean Reversion

PRO PRACTICE WORKSHEET

Work through these by hand or with a spreadsheet. There's no wrong answer, the goal is just practice.

Section 1 - Calculate Z-Scores by Hand

A stock has a 60-day mean of $80 and standard deviation of $4. Calculate the z-score for prices of $92, $84, and $70.

Section 2 - Set Your Own Thresholds

Would you use a +-2 or a +-2.5 threshold for signals? What's the trade-off between a tighter and a wider threshold?

Section 3 - Spot a Falling Knife

Think of a real or hypothetical stock that fell hard on genuinely bad news. How would you distinguish that from a normal statistical extreme?

Section 4 - Choose a Lookback Window

List the pros and cons of a 20-day versus a 120-day lookback window for calculating the historical mean and standard deviation.

Section 5 - Design a Simple Exit Rule

Sketch a rule for exiting a mean-reversion trade if the z-score keeps extending instead of reverting, rather than holding indefinitely.