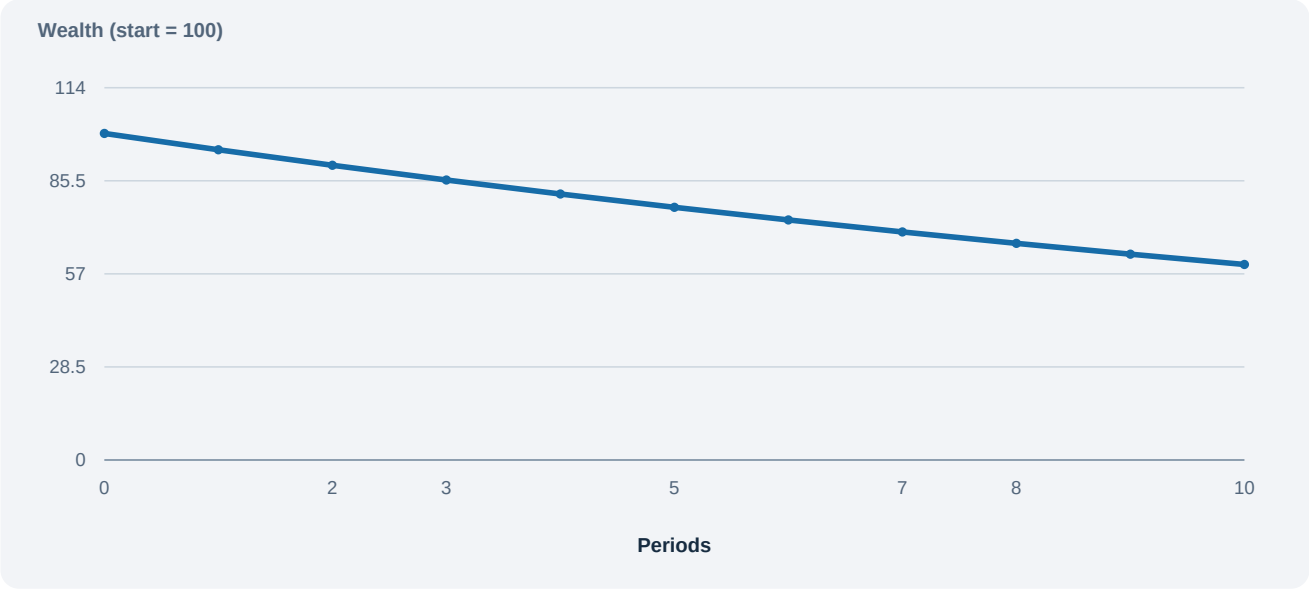
Compounding equal period returns

Performance arithmetic | Original synthetic example | Edition 2026-11-26

A constant hypothetical return reinvested each period creates compound growth or decay. The smooth path is an arithmetic illustration rather than a plausible promise about market returns.

FORMULA Ending wealth = starting wealth x (1 + r)^n

SCENARIO 01: Constant hypothetical period return -5%



WORKED EXAMPLE

After 10 periods the hypothetical value is 59.87; no deposits, fees or varying returns are included.

COMMON MISTAKE

Presenting a constant-return curve as a forecast suppresses volatility and uncertainty.

BEFORE YOU USE THE CALCULATION

1. Match return and period frequency.
2. Include negative-return cases.
3. State whether contributions are excluded.

COMPARE TWO MORE INPUT SETS

Scenario 05: Constant hypothetical period return 1%. After 10 periods the hypothetical value is 110.46; no deposits, fees or varying returns are included.

Scenario 10: Constant hypothetical period return 10%. After 10 periods the hypothetical value is 259.37; no deposits, fees or varying returns are included.

Synthetic values are not historical market data. Educational material; trading can result in substantial losses.