Future value of end-period contributions

Return comparisons | Original synthetic example | Edition 2026-11-26

A sequence of equal contributions made at each period end accumulates differently from a lump sum invested at the beginning. The annuity formula assumes a constant hypothetical period return.

FORMULA Future value = contribution x ((1 + r)^n - 1) / r

SCENARIO 01: End-period contribution 100; constant period return 1%



WORKED EXAMPLE

Six deposits of 100 accumulate to 615.2 under the constant 1% rate. This is a hypothetical arithmetic path.

COMMON MISTAKE

Using a beginning-period annuity formula for end-period deposits gives each contribution one extra period of growth.

BEFORE YOU USE THE CALCULATION

1. State deposit timing.
2. Match return and deposit frequency.
3. Use contribution x n when r equals zero.

COMPARE TWO MORE INPUT SETS

Scenario 05: End-period contribution 300; constant period return 1%. Six deposits of 300 accumulate to 1845.6 under the constant 1% rate. This is a hypothetical arithmetic path.

Scenario 10: End-period contribution 550; constant period return 1%. Six deposits of 550 accumulate to 3383.61 under the constant 1% rate. This is a hypothetical arithmetic path.

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