COMPOUND INTEREST AND SAVING PART 1 OF 8 · AGES 13+

Compound Interest Explained

Why 1,000 at an example 8% a year grows to over 10,000 in 30 years with compounding, but only 3,400 with simple interest.

1,000 at an example 8% a year for 30 years



Compound: A = P(1 + R/100)^n, interest added once a year. Simple: A = P(1 + Rn/100). P = 1,000 in any currency, R = 8 (example rate), n = years.

10,062.66

Total with compound interest

1,000 after 30 years at an example 8% a year, added once a year.

3,400

Total with simple interest

Same deposit, rate and 30 years, but interest only on the original sum.

6,662.66

Extra earned by compounding

The gap after 30 years: interest earned on earlier interest.

745.38

Interest earned in year 30 alone

8% of a balance of 9,317.27. In year 1 the same rate earned just 80.

A fixed rate is an assumption

Real savings rates change, and investments have no guaranteed return. This page explains the maths: it is financial education, not financial advice.

NEXT IN THE SERIES

2. How to Calculate Compound Interest: Worked Examples

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