

1 Explain CAGR.

ASSIGNMENT-6

With examples

CAGR (Compound Annual growth rate) is the rate at which an investment grows annually over a period of time, assuming the profits are reinvested at the end of each year. It gives a smooth average growth rate that removes the volatility of periodic returns.

The formula for CAGR is:

$$\text{CAGR} = \left(\frac{\text{Ending value}}{\text{Beginning value}} \right)^{\frac{1}{n}} - 1$$

Where:

- * Ending value = the final value of the investment
- * Beginning value = the initial value of the investment
- * n = the number of years

Example:

Let's say you invested \$10,000 in a fund, and after 5 years, your investment grew to \$16,105.

- * Beginning value = 10,000
- * Ending value = 16,105
- * n = 5 years.

Applying the formula

$$CAGR = \left(\frac{16,105}{10,000} \right)^{1/5} - 1 = 0.1 \text{ or } 10\%$$

So, the investment grew at an average rate of 10% per year over the 5-year period.