CAGR COMPOUND ANNUAL GROWTH EXPLAINED

A measure that provides the mean annual growth rate of an investment over a specified time period, taking into account the effect of compounding.

	2023	2024	2025	2026	2027	2028	CAGR
Revenues							
Product 1	25,000	25,500	28,422	29,000	31,000	33,000	5.7%
Product 2	26,500	27,000	29,922	30,500	41,000	44,000	=+((H5/C5)^(1/5))-1
Product 3	29,080	29,580	32,502	33,080	43,580	51,000	11.9%
Total	80,580	82,080	90,846	92,580	115,580	128,000	9.7%

CAGR= $((BV/EV)^{1/n}-1)x100$

EV=Ending value
BV Beginning value,
n=Number of years

5.7% $((33000/25000)^{1/5}-1)x100$

EV 33000
BV=25000
n= 2008 2003 = 5

WHY AND WHEN IS APPLIED

CAGR is a useful measure because it gives you a smoothed annual rate, ignoring the effects of volatility and fluctuations during the period. Uses of CAGR in Finance:

Uses Of CAGR in Finance

- **Investments:**
  Investors use CAGR to compare the returns of different investments over time.
- **Business Analysis:**
  Companies might use CAGR to analyze the growth over periods of their revenues, profits, or any other metric to understand business performance trends.
- **Forecasting:**
  CAGR can be used to project future values based on historical data. If a company has grown at a CAGR of 8% over the past 5 years, one might make projections based on that rate continuing, though this assumes a lot and isn't always realistic.
- **Comparing Growth Rates:**
  CAGR is beneficial when comparing the growth rates of two or more data sets that have experienced volatility. For example, two businesses might have the same beginning and end values over a period but might have gotten there in very different ways.
- **Economic Analysis:**
  Economists and analysts might use CAGR to describe the growth of macroeconomic metrics like GDP, employment rates, etc.