How do I calculate CAGR in Google Sheets step-by-step?

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CAGR (Compound Annual Growth Rate) is a financial metric used to measure the average annual growth rate of an investment over a specific period of time. It is commonly used to evaluate the performance of investments such as stocks, mutual funds, and real estate. In Google Sheets, calculating CAGR can be done in a few simple steps.

Step 1: Gather the necessary data
Before calculating CAGR, you will need to gather the starting value and ending value of the investment, as well as the number of years in the investment period.

Step 2: Create a new spreadsheet
Open Google Sheets and create a new spreadsheet.

Step 3: Enter the data
In the first column, enter the year numbers corresponding to the investment period. In the second column, enter the starting value of the investment for each year. In the third column, enter the ending value of the investment for each year.

Step 4: Calculate the annual growth rate
In the fourth column, enter the formula "=LN(C3/B3)" to calculate the annual growth rate for each year. This formula calculates the natural logarithm of the ending value divided by the starting value.

Step 5: Calculate the CAGR
In the fifth column, enter the formula "=AVERAGE(D3:Dn)" to calculate the average of the annual growth rates. Replace "n" with the last row number of your data.

Step 6: Format the CAGR cell
Format the cell containing the CAGR formula as a percentage by selecting the cell and clicking on the "%" button in the toolbar.

Step 7: View the CAGR
The calculated CAGR will now be displayed in the formatted cell, representing the average annual growth rate of the investment over the chosen period of time.

In conclusion, calculating CAGR in Google Sheets can be easily done by following these simple steps. This financial metric can provide valuable insights into the performance of investments and is a useful tool for decision-making in the world of finance.

Calculate CAGR in Google Sheets (Step-by-Step)

The acronym CAGR stands for compound annual

growth rate, which is the average annualized revenue growth rate during a certain time period.

The formula to calculate CAGR is as follows:

CAGR = (future value / present value)1/periods - 1

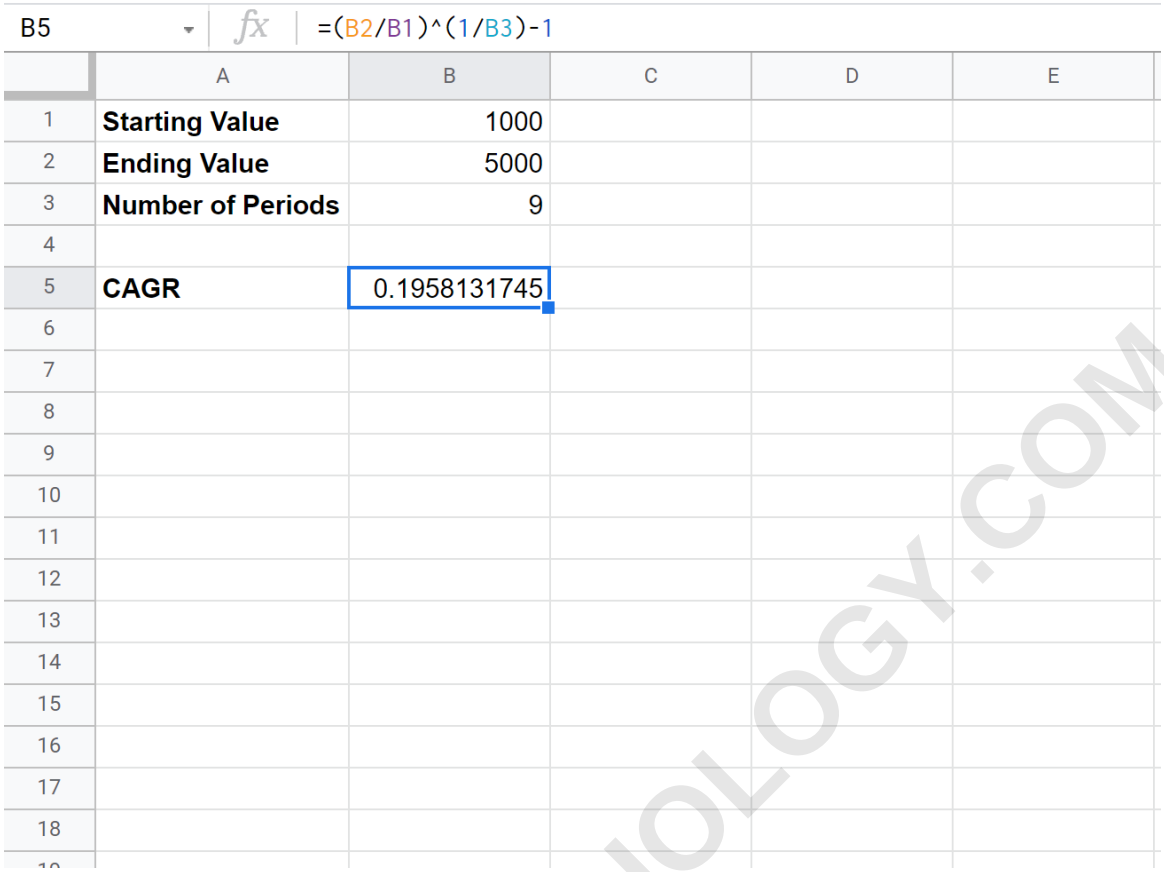
The following examples show two equivalent ways to calculate CAGR in Google Sheets.

Method 1: Calculate CAGR Manually

We can use the following formula to calculate CAGR manually in Google Sheets:

=(ENDING_VALUE/STARTING_VALUE)^(1/PERIODS)-1

The following screenshot shows how to use this formula to calculate CAGR for an investment that started at $1,000 and ended at $5,000 after 9 investment periods:



B5 | fx | =(B2/B1)^(1/B3)-1

	A	B	C	D	E
1	**Starting Value**	1000			
2	**Ending Value**	5000			
3	**Number of Periods**	9			
4					
5	**CAGR**	0.1958131745			
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					

The CAGR is 19.58%. This represents the compound annual growth rate of the investment during these 9 investment periods.

We can confirm this answer is correct by calculating the growth of an initial $1,000 investment if it grew consistently at 19.58% each year for 9 years:

E9 | fx | =E8*(1+B5)

	A	B	C	D	E
1	**Starting Value**	1000		Year 1	1195.813175
2	**Ending Value**	5000		Year 2	1429.969148
3	**Number of Periods**	9		Year 3	1709.975947
4				Year 4	2044.811765
5	**CAGR**	0.1958131745		Year 5	2445.212848
6				Year 6	2924.017738
7				Year 7	3496.578934
8				Year 8	4181.255155
9				Year 9	5000
10					
11					
12					
13					
14					

Method 2: Calculate CAGR Using RRI Function

Another way to calculate CAGR in Google Sheets is by using the RRI function, which uses the following syntax:

RRI(number of periods, starting value, ending value)

The following screenshot shows how to use this function in practice:

B5 | fx | =RRI(B3, B1, B2)

	A	B	C	D	E
1	**Starting Value**	1000			
2	**Ending Value**	5000			
3	**Number of Periods**	9			
4					
5	**CAGR**	0.1958131745			
6					
7					
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This matches the value that we calculated manually using the previous method.