How to Calculate Compound Interest in Google Sheets: A Step-by-Step Guide

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Compound interest is calculated in Google Sheets by using the "FV" function. This function takes three arguments: the present value, the interest rate, and the number of periods. By providing these three arguments to the function, you can calculate the future value of the investment with compound interest applied. Three examples of how to calculate compound interest in Google Sheets are provided in this article to help illustrate the process.

We can use the following compound interest formula to find the ending value of some investment after a certain amount of time:

A = P(1 + r/n)nt

where:

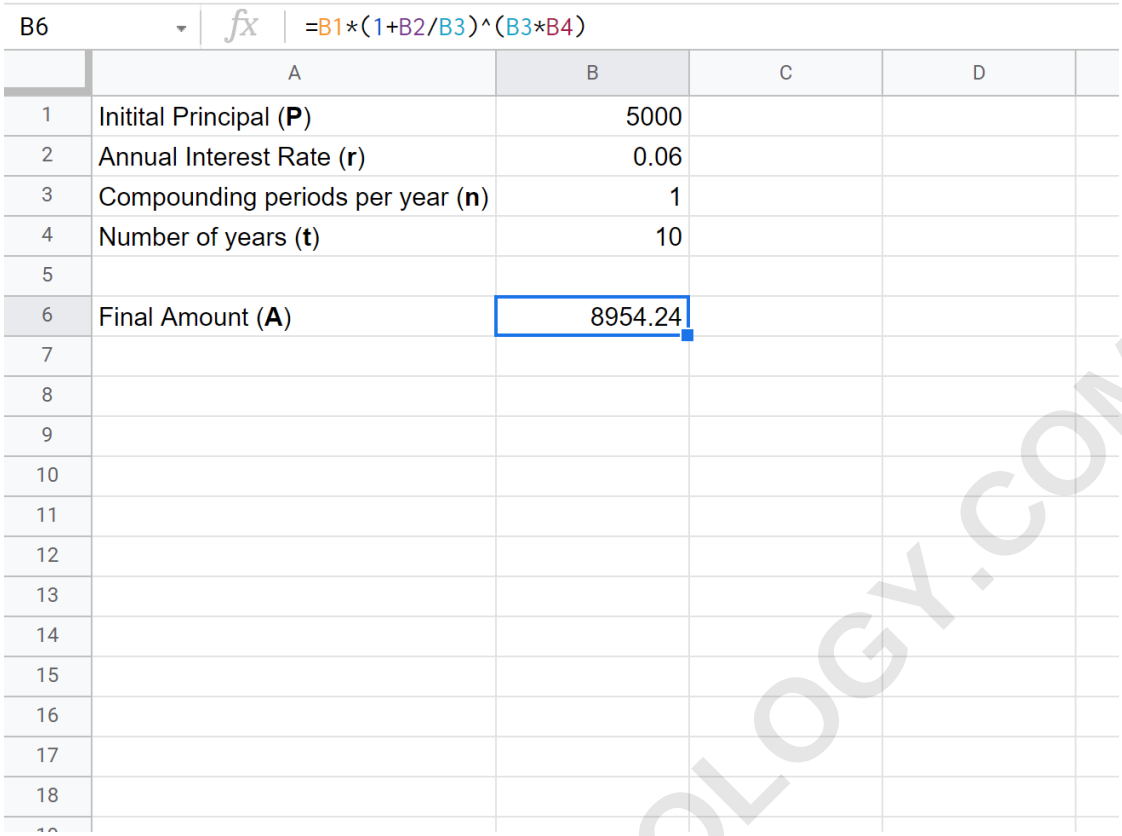
A: Final Amount
P: Initial Principal
r: Annual Interest Rate
n: Number of compounding periods per year
t: Number of years

The following examples show how to use this formula in Google Sheets to calculate the ending value of investments in different scenarios.

Example 1: Compound Interest Formula with Annual Compounding

Suppose we invest $5,000 into an investment that compounds at 6% annually.

The following screenshot shows how to use the compound interest formula in Google Sheets to calculate the ending value of this investment after 10 years:



This investment will be worth **$8,954.24** after 10 years.

The following screenshot shows how to calculate the ending investment after each year during the 10-year period.

Note that Column F shows the formula we used in each corresponding cell in Column E:

	A	B	C	D	E	F
1	Initital Principal (**P**)	5000		Year 1	5300	=B1*(1+B2)
2	Annual Interest Rate (**r**)	0.06		Year 2	5618	=E1*(1+$B$2)
3	Compounding periods per year (**n**)	1		Year 3	5955.08	=E2*(1+$B$2)
4	Number of years (**t**)	10		Year 4	6312.38	=E3*(1+$B$2)
5				Year 5	6691.13	=E4*(1+$B$2)
6	Final Amount (**A**)	8954.24		Year 6	7092.60	=E5*(1+$B$2)
7				Year 7	7518.15	=E6*(1+$B$2)
8				Year 8	7969.24	=E7*(1+$B$2)
9				Year 9	8447.39	=E8*(1+$B$2)
10				Year 10	8954.24	=E9*(1+$B$2)
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12						
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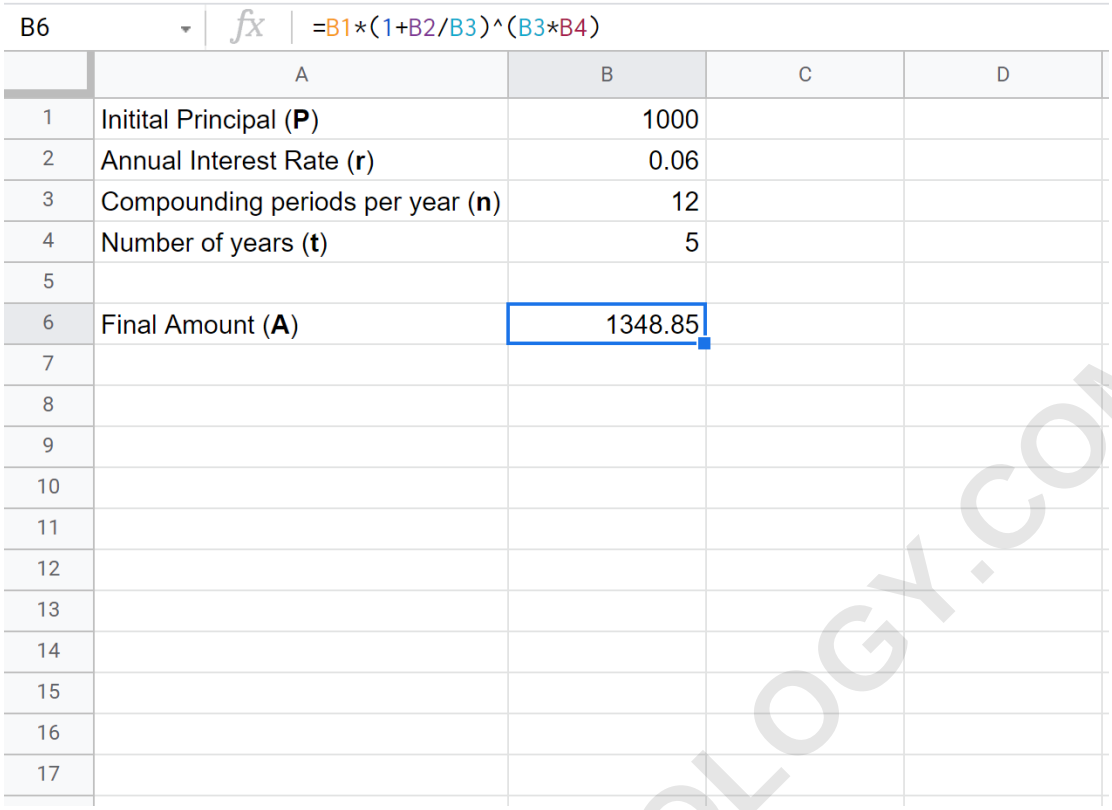
20						

Example 2: Compound Interest Formula with Monthly Compounding

Suppose we invest $1,000 into an investment that compounds at 6% annually and is compounded on a monthly basis (12 times per year).

The following screenshot shows how to use the compound interest formula in Google Sheets to calculate the ending value of this investment after 5 years:



Example 3: Compound Interest Formula with Daily Compounding

Suppose we invest $5,000 into an investment that compounds at 8% annually and is compounded on a daily basis (365 times per year).

The following screenshot shows how to use the compound interest formula in Google Sheets to calculate the ending value of this investment after 15 years:

B6 | fx | =B1*(1+B2/B3)^(B3*B4)

	A	B	C	D
1	Initital Principal (**P**)	5000		
2	Annual Interest Rate (**r**)	0.08		
3	Compounding periods per year (**n**)	365		
4	Number of years (**t**)	15		
5				
6	Final Amount (**A**)	16598.40		
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This investment will be worth **$16,598.39** after 15 years.