OMNEVOLVE

Return Calculation

March 2014

Returns

Consider:

You have 2 gardens
Each produces 5 Roses

Which is better?

Returns

In absence of any other information, both gardens are of equal value.

The roses are the returns you get from the gardens.

You get 5 roses. Your return is 5 roses.

This is called **Return**

Returns - definition

The **RETURN** is a measure of the gain or loss on an investment portfolio

Returns

Few Terms:

Initial Investment: The amount you had initially invested

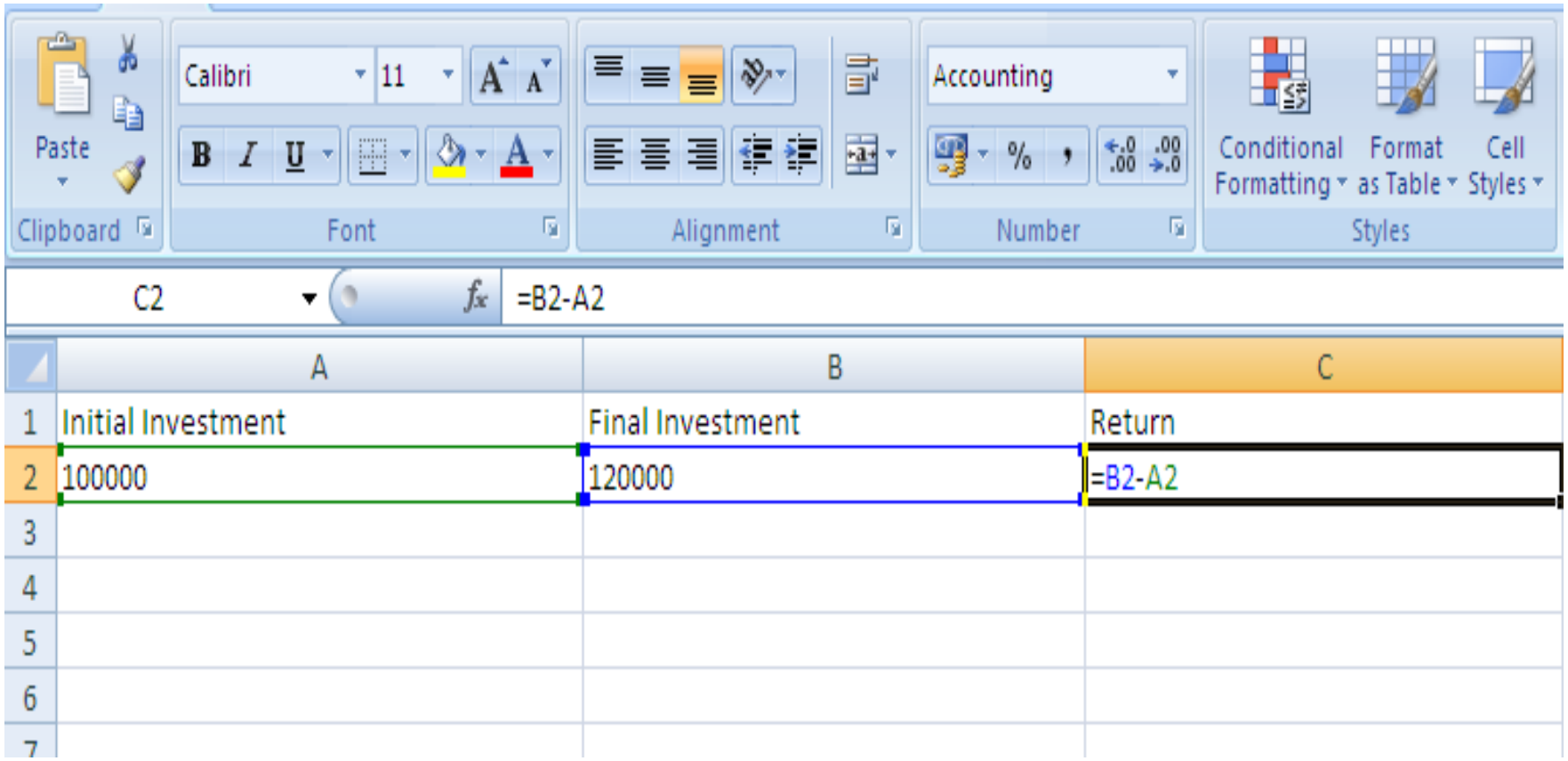
Final Value: The Value of the said investment at the time of consideration

Returns - Formula

So,

Return = Final Value – Initial Investment

Create a Formula in your Worksheet



Absolute Return - Percentage

Let's go back to the garden analogy

What if one garden was a small patch of land in your backyard, and the other was a huge garden on acres of land?

Which would be a better garden?

Returns - definition

The **ABSOLUTE RETURN** is a measure of the gain or loss on an investment portfolio expressed as a percentage of invested capital.

Absolute Returns - Formula

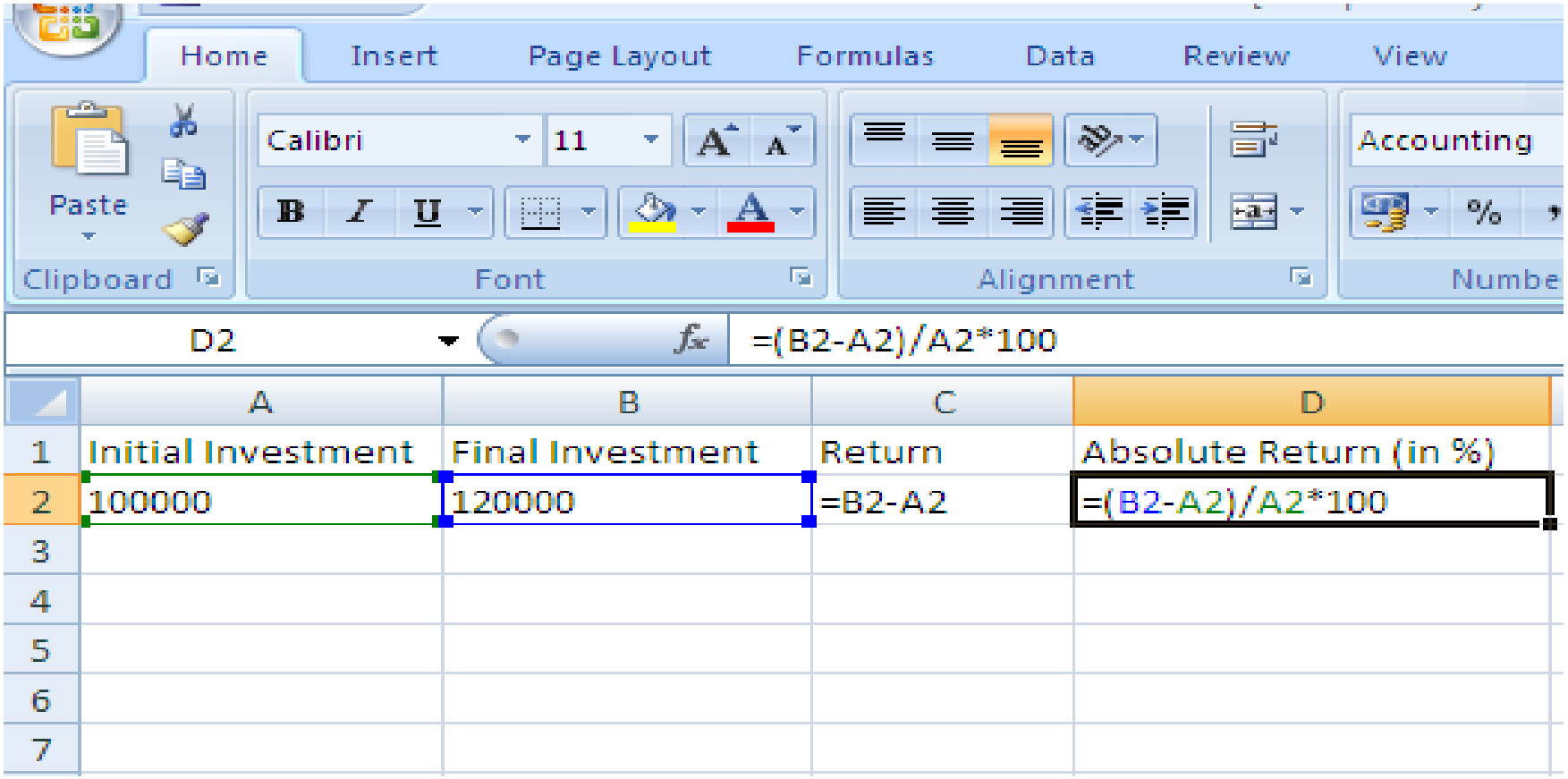
So,

Absolute Return = (Final Value – Initial Investment) / Initial Investment

Absolute Return (%) = {(Final Value – Initial Investment) / Initial Investment } * 100

Usually, Absolute Return is expressed as a percentage

Create a Formula in your Worksheet



Simple Annualised Return

Back to the garden,

What if you had worked hard on one garden for an entire year, and the other for only 6 months?

Which then, would be a better garden?

Simple Annualised Returns - Definition

The **SIMPLE ANNUALISED RETURN** is a measure of the gain or loss on an investment portfolio expressed as a percentage of invested capital, per year.

Simple Annualised Returns - Formula

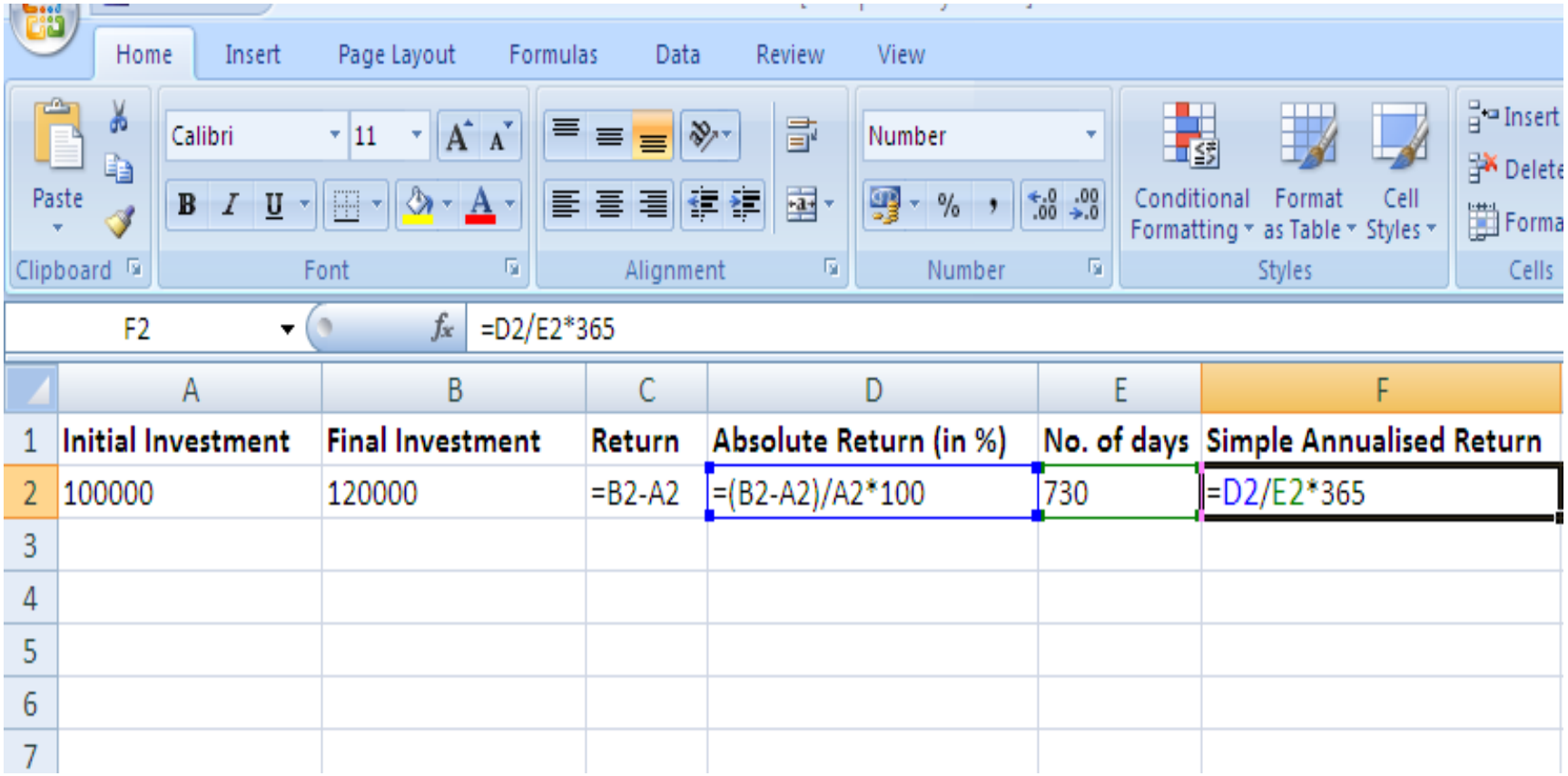
Simple Annualised Return = {(Final Value – Initial Investment) / Initial Investment} *100 * 365 / No. of Days

Or

Simple Annualised Return = Absolute Return * 365 / No. of Days

No. of Days = No. of days the money has been invested

Create a Formula in your Worksheet



	A	B	C	D	E	F
1	**Initial Investment**	**Final Investment**	**Return**	**Absolute Return (in %)**	**No. of days**	**Simple Annualised Return**
2	100000	120000	=B2-A2	=(B2-A2)/A2*100	730	=D2/E2*365
3						
4						
5						
6						
7						

Compunded Annualised Returns - Definition

The **COMPOUNDED ANNUALISED RETURN** is a measure of the gain or loss on an investment portfolio expressed as a percentage of invested capital, per year, given that the Gain / Loss percentage is cumulative.

Compunded Annualised Returns - Definition

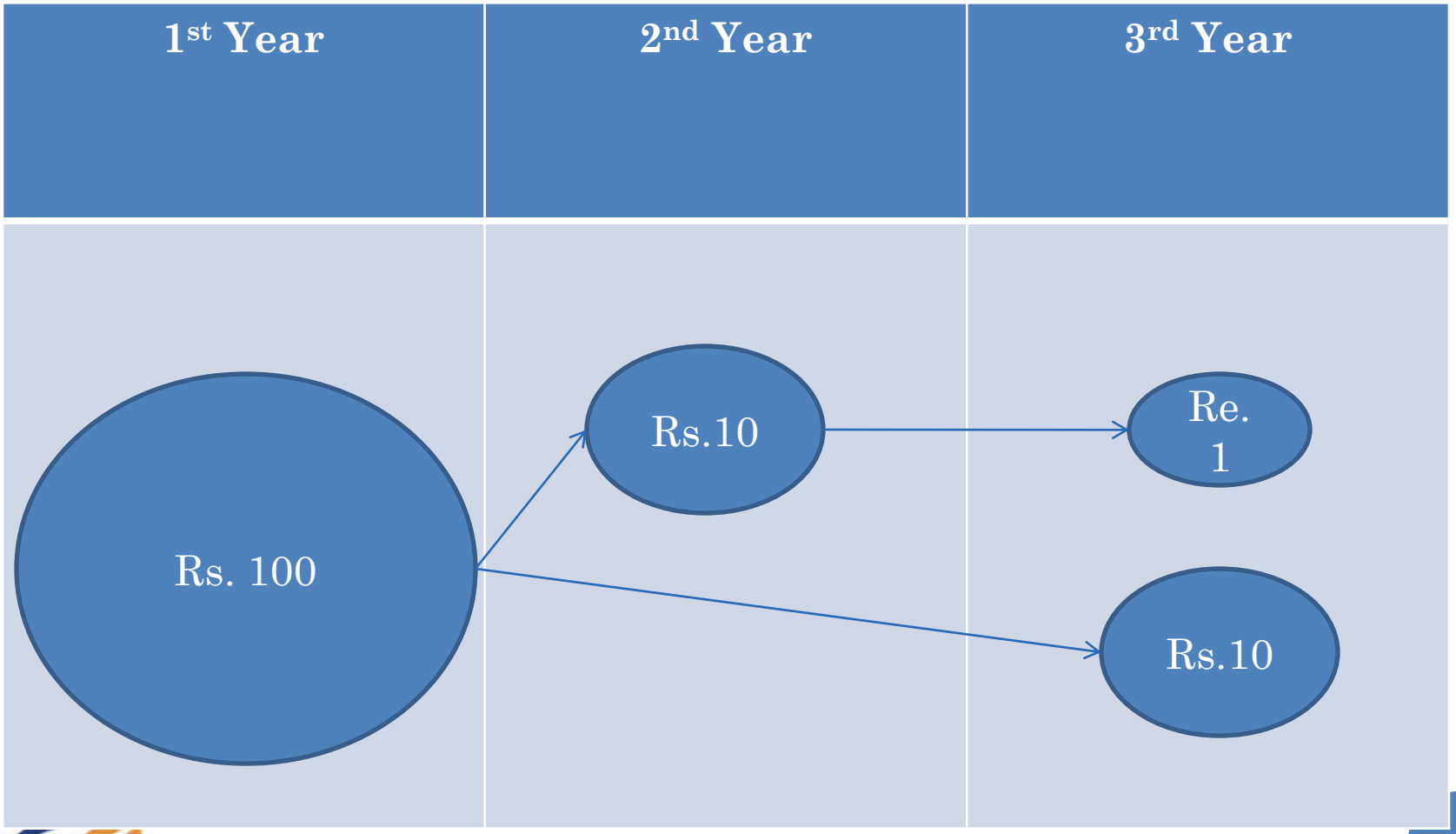
Say, every 100 Rs. gives you a return of 10 Rs. Which means a return of 10/100 = 10%

So, end of the 1st year, you have 100 + 10 Rs.

End of second year, if the money was still invested, you would get 10 Rs. for the original 100 Rs. invested, and another 1 Re. for the 10 Rs. which you had earned as return in the 1st year

So you would have 100 + 10 + 10 + 1

Compunded Annualised Returns - Definition



Compounded Annualised Returns - Formula

What happened there?

Say the initial amount was X

So X was added to 10% of itself:

X + 10% X or X * (1+10/100) or X * 1.1

In the second year the resultant was now added to 10% of itself

So (X*1.1) (1.1)

Compounded Annualised Returns - Formula

What we get is, for every year that progresses, we have one more 1.1 multiplied to the resultant of the last year. So in the third year, the answer should look like X*(1.1)*(1.1) *(1.1) or X * (1.1) ^3

And 1.1 is nothing but (1+ 10 / 100) or (1+ r/100)

Where r = rate of return (%)

Compounded Annualised Returns - Formula

Thus we come to the formula as Final Value = Initial Investment * {(1 + r/100)^ No. of Years}

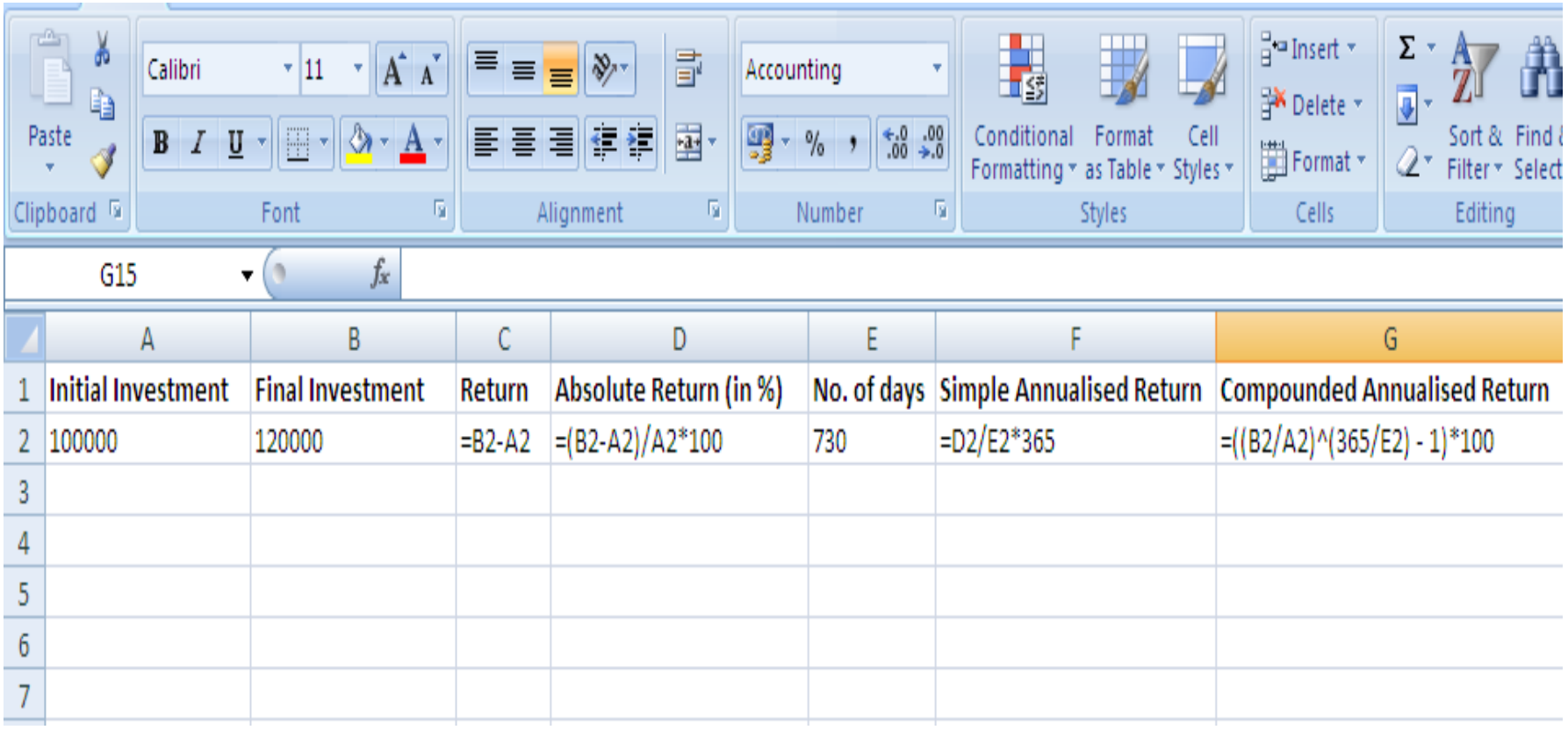
Or

= Initial Investment * {(1 + r/100)^ (No. of Days/365)}

We can find the Rate of return from the above formula by solving for r

So, r = {(Final Value / Initial Investment) ^ (365 / No. of Days) – 1} * 100

Create a Formula in your Worksheet



	A	B	C	D	E	F	G
1	Initial Investment	Final Investment	Return	Absolute Return (in %)	No. of days	Simple Annualised Return	Compounded Annualised Return
2	100000	120000	=B2-A2	=(B2-A2)/A2*100	730	=D2/E2*365	=((B2/A2)^(365/E2) - 1)*100
3							
4							
5							
6							
7							

Use and Reuse the Worksheet

Save the Worksheet!

Or, copy the formulae from the embedded Worksheet

Initial Investment	Rs.	100,000.00
Final Investment	Rs.	120,000.00
Return	Rs.	20,000.00
Absolute Return (in %)		20.00
No. of days		730.00
Simple Annualised Return (in %)		10.00
Compounded Annualised Return(in %)		9.54

Get in Touch if you have any Queries

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