How do I calculate NPV using Excel?

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Calculating Net Present Value (NPV) is a common financial analysis technique used to evaluate the profitability of a project or investment. Excel, being a powerful spreadsheet software, offers a convenient way to calculate NPV by using its built-in functions. To calculate NPV using Excel, the user needs to input the expected cash flows, discount rate, and initial investment into the appropriate cells and use the NPV function to obtain the final result. The function takes into consideration the timing and value of each cash flow, and discounts them to their present value. This allows for a quick and accurate calculation of the project's potential profitability. By following the proper steps and utilizing Excel's NPV function, one can easily determine the NPV of a project, making it a valuable tool for financial decision making.

How to Calculate NPV Using Excel

Learn how to calculate NPV (Net Present Value) using Excel.

NPV (Net Present Value) is a financial formula used to discount future cash flows.

The calculation is performed to find out whether an investment is positive in the future.

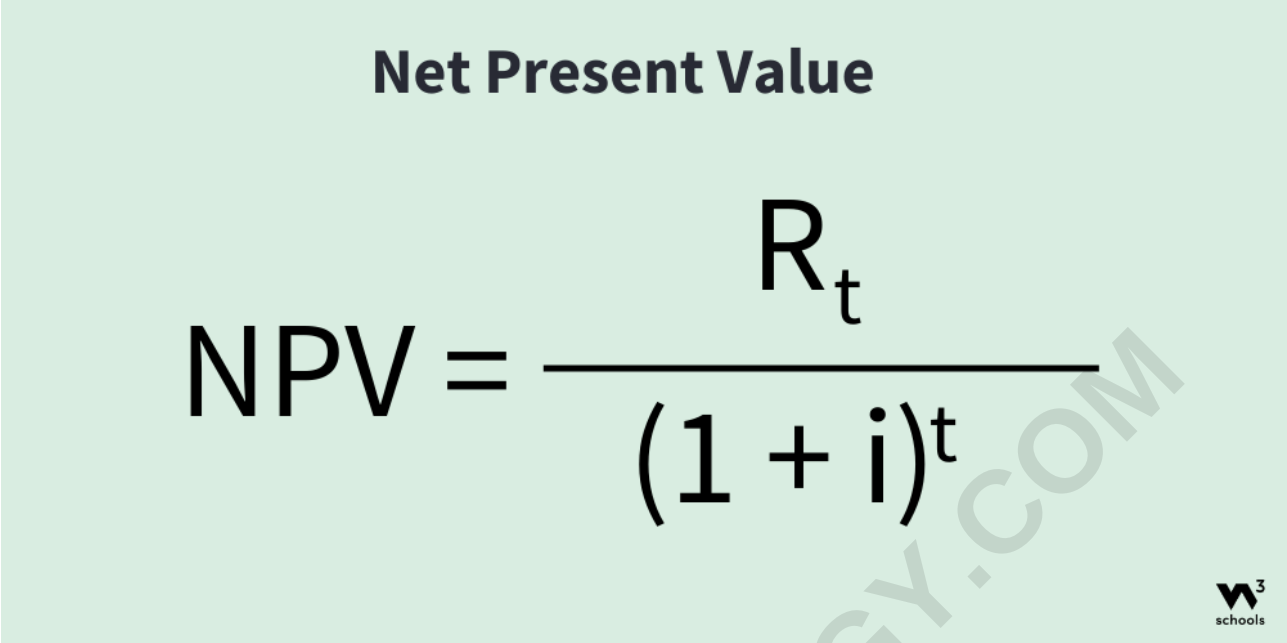
Keep in mind that money is always worth more today than in the future.

That is why we discount the future cash flows.

What else could you do with the money if not spent on this project?

The NPV Formula

The Formula:



`R` = **Return** which defines the earnings, how much you have made.
`t` = **Time** which used to define the duration of what you are calculating.
`I` = **Discount Rate** which used to define your requirement of return.

How to Calculate NPV Using Excel

Step 1) Create a sheet and set up values:

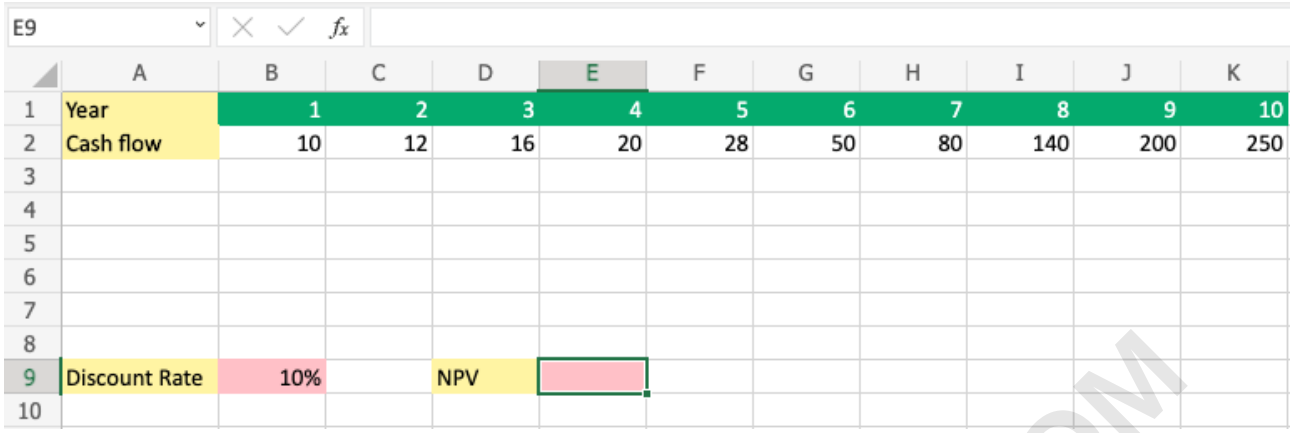
In this example, we will calculate the NPV over a **10** years period.

The Discount Rate, return of requirement is set to **10%**.

Copy the values to follow the example.

Paste the values directly into your sheet.

You need to apply the styling on your own, if you want it to be more presentable.



	A	B	C	D	E	F	G	H	I	J	K
1	Year	1	2	3	4	5	6	7	8	9	10
2	Cash flow	10	12	16	20	28	50	80	140	200	250
3											
4											
5											
6											
7											
8											
9	Discount Rate	10%		NPV							
10											

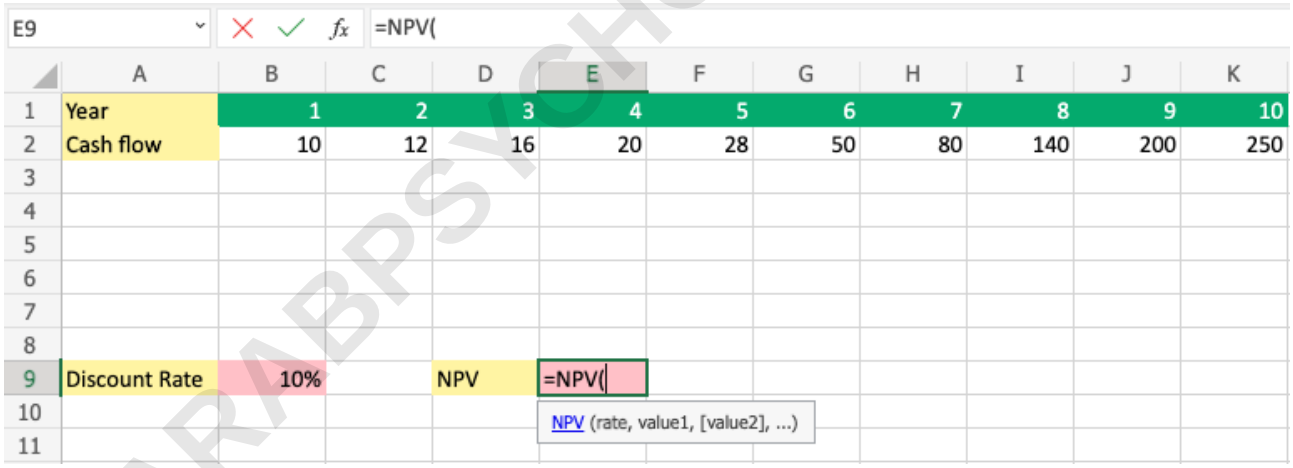
Ensure that you have `10%` (percentage) as input and not just `10` in cell `B9`

Step 2) Start the NPV Function:

Select cell `E9`

Type `=NPV`

Select the `=NPV` function by clicking it



	A	B	C	D	E	F	G	H	I	J	K
1	Year	1	2	3	4	5	6	7	8	9	10
2	Cash flow	10	12	16	20	28	50	80	140	200	250
3											
4											
5											
6											
7											
8											
9	Discount Rate	10%		NPV	=NPV(						
10											
11											

NPV (rate, value1, [value2], ...)

Step 3) Enter NPV Values:

Select `B9` to Apply **"rate"**

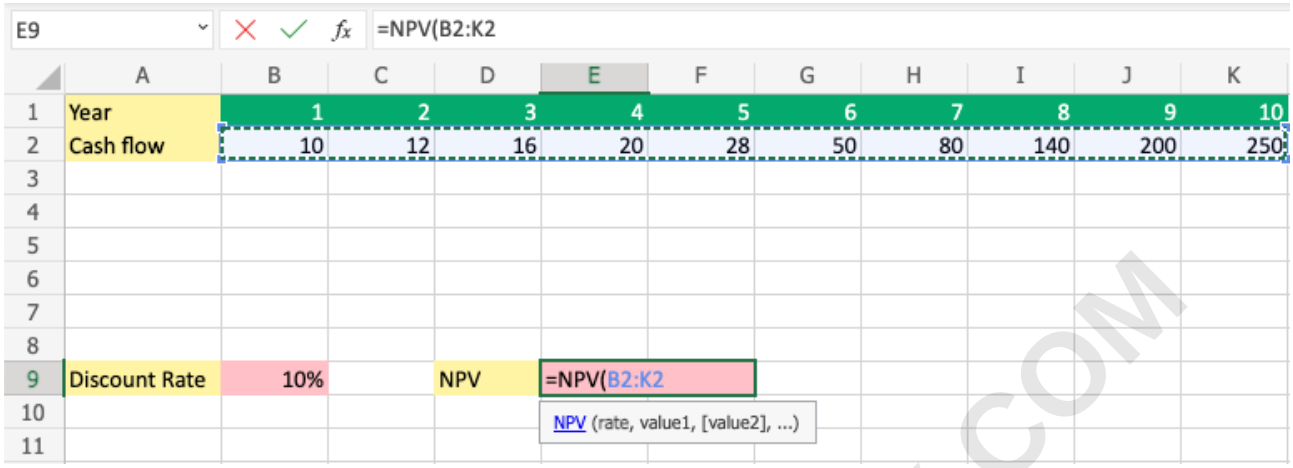
Type `, or ;` to separate and move on to **value**

Select range `B2:K2`

Press the enter button

Note: The different parts of the function are separated by a symbol, like comma `,` or semicolon `;`

The symbol depends on your Language Settings.



Nicely done!

You have successfully calculated the NPV for a 10 years period and applied a 10% Discount Rate.

In this case, the right answer was `377,87`