#### NPV

[Syntax](Syntax.docx):

NPV ( rate , argument-list )

Description: Calculates the net present value of an investment by using a discount rate and a series of future payments and income.

The NPV investment begins one period before the date of the first argument cash flow and ends with the last cash flow in the list. The calculation is based on future cash flows. If the first cash flow occurs at the beginning of the first period, the first value shall be added to the NPV result, not included in argument-list.

Mathematical Formula:

If [n](n.docx) is the number of cash flows in the list of values:

Equation

Arguments:

|  |  |  |
| --- | --- | --- |
| Name | Type | Description |
| rate | number | The rate of discount over the length of one period. |
| argument-list | number | The arguments in argument-list designate the series of future payments (negative values) and income (positive values). arguments shall be equally spaced in time and occur at the end of each period. The order of arguments is significant. arguments that are numbers, empty cells, logical values, or text representations of numbers are included; arguments that are error values or text that cannot be translated into numbers are ignored. If an argument is an array or [reference](reference.docx), only numbers in that array or [reference](reference.docx) are included. Empty cells, logical values, text, or error values in the array or [reference](reference.docx) are ignored. |

Return Type and Value: number – Net present value of an investment by using a discount rate and a series of future payments and income.

[Example:  
  
NPV(0.1,-10000,3000,4200,6800) results in 1188.44  
  
end example]