

How can I create a function in Excel that uses a variable value?

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A function in Excel is a predefined formula that can be used to perform a specific task or calculation. It is possible to create a function that uses a variable value, meaning that the input value can vary each time the function is used. This can be achieved by defining the variable within the function and assigning it a value, or by allowing the user to input the variable value when using the function. By incorporating a variable value, the function can be more versatile and applicable to a wider range of scenarios, making it a useful tool for data analysis and manipulation in Excel.

Estimates variance based on a sample.

Important: This function has been replaced with one or more new functions that may provide improved accuracy and whose names better reflect their usage. Although this function is still available for backward compatibility, you should consider using the new functions from now on, because this function may not be available in future versions of Excel.

For more information about the new function, see [VAR.S function](#).

Syntax

VAR(number1,...)

The VAR function syntax has the following arguments:

Number1 Required. The first number argument corresponding to a sample of a population.

Number2, ... Optional. Number arguments 2 to 255 corresponding to a sample of a population.

Remarks

VAR assumes that its arguments are a sample of the population. If your data represents the entire population, then compute the variance by using VARP.

Arguments can either be numbers or names, arrays, or references that contain numbers.

Logical values, and text representations of numbers that you type directly into the list of arguments are counted.

If an argument is an array or reference, only numbers in that array or reference are counted. Empty cells, logical values, text, or error values in the array or reference are ignored.

Arguments that are error values or text that cannot be translated into numbers cause errors.

If you want to include logical values and text representations of numbers in a reference as part of

the calculation, use the VARA function.

VAR uses the following formula:

$$\frac{\sum (x - \bar{x})^2}{(n-1)}$$

where \bar{x} is the sample mean AVERAGE(number1,number2,...) and n is the sample size.

Example

Copy the example data in the following table, and paste it in cell A1 of a new Excel worksheet. For formulas to show results, select them, press F2, and then press Enter. If you need to, you can adjust the column widths to see all the data.

Strength		
1345		
1301		
1368		
1322		
1310		
1370		
1318		
1350		
1303		
1299		
Formula	Description	Result
=VAR(A2:A11)	Variance for the breaking strength of the tools tested.	754.2667