How do I calculate the standard deviation in Excel?

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July 1, 2024

To calculate the standard deviation in Excel, follow these steps:
1. Organize your data in a column or row in the Excel spreadsheet.
2. Use the formula "=STDEV(range)" to calculate the standard deviation for the data in the specified range.
3. Press Enter and the standard deviation value will appear.
4. Alternatively, you can use the "STDEV.S" function for a sample standard deviation or "STDEV.P" for a population standard deviation.
5. You can also use the "STDEVA" or "STDEVPA" functions to include cells with text or logical values in the calculation.
6. Repeat the process for each set of data you want to find the standard deviation for.
By following these steps, you can easily calculate the standard deviation of your data in Excel.

Estimates standard deviation based on a sample. The standard deviation is a measure of how widely values are dispersed from the average value (the mean).

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 STDEV.S function.

Syntax

STDEV(number1,,...)

The STDEV 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. You can also use a single array or a reference to an array instead of arguments separated by commas.

Remarks

STDEV assumes that its arguments are a sample of the population. If your data represents the entire population, then compute the standard deviation using STDEVP.

The standard deviation is calculated using the "n-1" method.

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 STDEVA function.

STDEV uses the following formula:

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

where 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.

Data		
Strength		
1345		
1301		
1368		
1322		
1310		
1370		
1318		
1350		

Data		
1303		
1299		
Formula	**Description (Result)**	**Result**
=STDEV(A3:A12)	Standard deviation of breaking strength (27.46392)	27.46392