

# How do I use the STDEVA function in Excel?

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The STDEVA function in Excel is a statistical function that calculates the standard deviation of a set of numerical data. To use this function, first select a cell where you want the result to appear. Then, type "=STDEVA(" into the cell and select the range of data for which you want to calculate the standard deviation. Finally, close the parentheses and press Enter to display the result. This function can be useful for analyzing the variability of a data set and identifying any outliers.

This article describes the formula syntax and usage of the **STDEVA** function in Microsoft Excel.

## Description

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).

## Syntax

STDEVA(value1, , ...)

The STDEVA function syntax has the following arguments:

**Value1, value2, ...** Value1 is required, subsequent values are optional. 1 to 255 values 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

STDEVA assumes that its arguments are a sample of the population. If your data represents the entire population, you must compute the standard deviation using STDEVPA.

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

Arguments can be the following: numbers; names, arrays, or references that contain numbers; text representations of numbers; or logical values, such as TRUE and FALSE, in a reference.

Arguments that contain TRUE evaluate as 1; arguments that contain text or FALSE evaluate as 0 (zero).

If an argument is an array or reference, only values in that array or reference are used. Empty cells and text 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 do not want to include logical values and text representations of numbers in a reference as

part of the calculation, use the STDEV function.

STDEVA uses the following formula:

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

where  $\bar{x}$  is the sample mean  $AVERAGE(\text{value1}, \text{value2}, \dots)$  and  $n$  is the sample size.

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