How do I calculate the standard deviation in Excel while ignoring zero values?

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The process of calculating the standard deviation in Excel while ignoring zero values involves using the STDEV.S function and applying a logical test to exclude any cells with a value of zero. This allows for a more accurate calculation of the standard deviation by only considering non-zero values. By using this method, any zero values will not be included in the calculation, resulting in a more precise representation of the data set. This approach is useful when dealing with data that contains a large number of zero values, as it helps to eliminate any potential bias in the standard deviation calculation.

Excel: Calculate Standard Deviation and Ignore Zero

You can use the following formula to calculate a standard deviation of a range in Excel and ignore any cells that have a value of zero:

=STDEV(IF(A2:A13>0,A2:A13))

This particular formula will calculate the standard deviation of values in the range A2:A13 and ignore any cells that have a value of zero.

The following example shows how to use this formula in practice.

Example: Calculate Standard Deviation and Ignore Zero in Excel

Suppose we have the following list of values in Excel:

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	A	B	C	D	E
1	**Data**				
2	13				
3	5				
4	8				
5	0				
6	0				
7	4				
8	9				
9	0				
10	7				
11	5				
12	4				
13	9				
14					
15					
16					
17					

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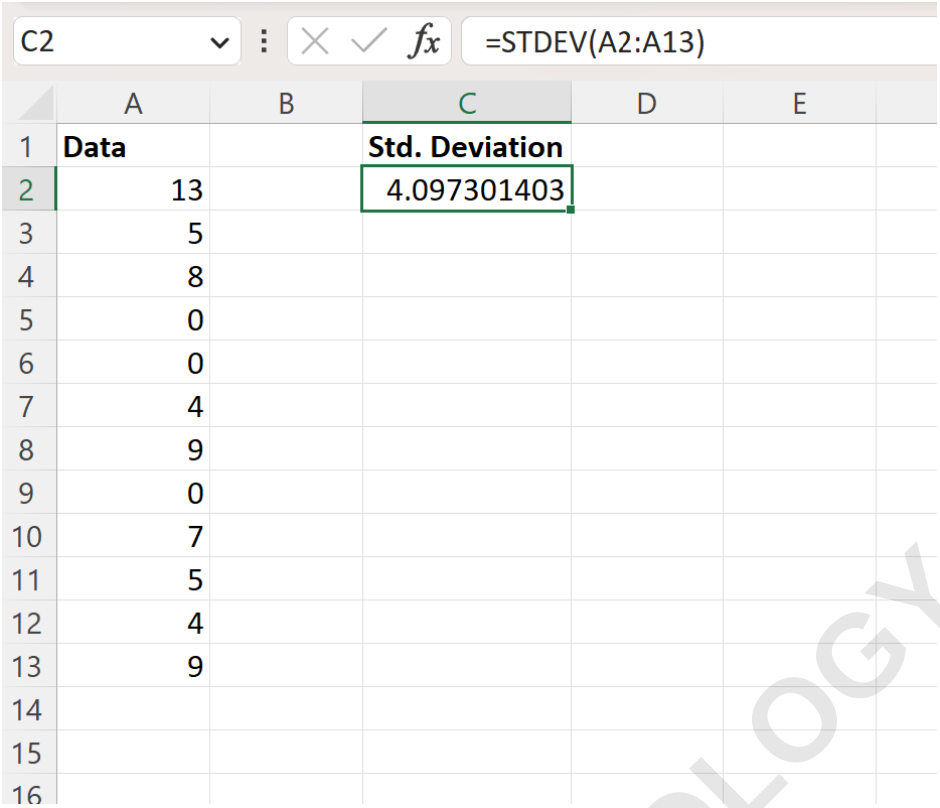
Suppose we type the following formula into cell C2 to calculate the standard deviation of values in column A:

=STDEV(A2:A13)

The following screenshot shows how to use this formula in practice:



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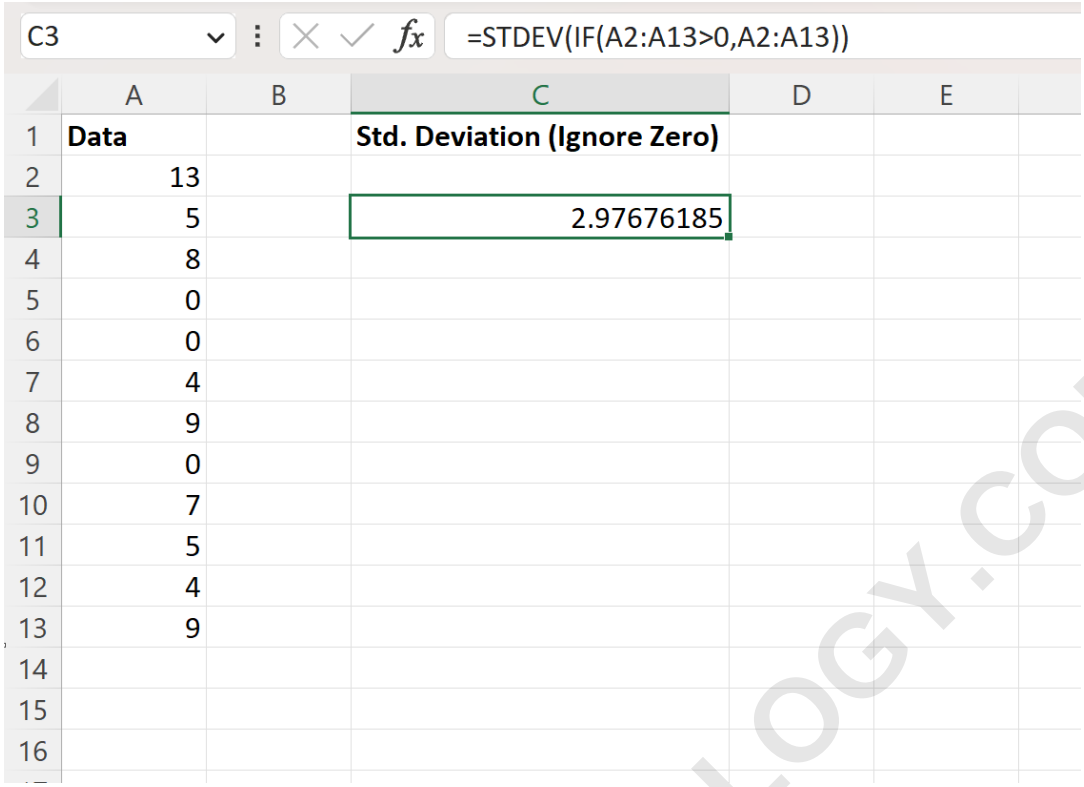
The formula returns a value of 4.097.

This represents the standard deviation of all values in column A.

However, we could instead use the following formula to only calculate the standard deviation of values in column A for the cells that are not equal to zero:

=STDEV(IF(A2:A13>0,A2:A13))

The following screenshot shows how to use this formula in practice:



	A	B	C	D	E
1	Data		Std. Deviation (Ignore Zero)		
2	13				
3	5		2.97676185		
4	8				
5	0				
6	0				
7	4				
8	9				
9	0				
10	7				
11	5				
12	4				
13	9				
14					
15					
16					

The formula returns a value of 2.976.

This represents the standard deviation of all values in column A that are not equal to zero.

The following tutorials explain how to perform other common tasks in Excel:

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