How can I calculate a trimmed mean in Google Sheets?”

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June 26, 2024

A trimmed mean is a statistical measure that is used to calculate the average of a set of data while excluding a certain percentage of extreme values. In order to calculate a trimmed mean in Google Sheets, one can use the AVERAGEIF function and specify the range of data to be included, along with the criteria for excluding the extreme values. This will provide a more accurate representation of the central tendency of the data set. Additionally, the TRIMMEAN function can also be used to directly calculate the trimmed mean by specifying the percentage of data to be excluded. By utilizing these functions, one can easily calculate a trimmed mean in Google Sheets for effective data analysis.

Calculate a Trimmed Mean in Google Sheets

A trimmed mean is the mean of a dataset that has been calculated after removing a specific percentage of the smallest and largest values from the dataset.

For example, a 10% trimmed mean would represent the mean of a dataset after the 10% of values from the extremities of the dataset have been removed.

To calculate a trimmed mean in Google Sheets you can use the TRIMMEAN function, which uses the following basic syntax:

TRIMMEAN(data, exclude_proportion)

where:

data: Range containing the datasetexclude_proportion: Proportion of data to exclude (between 0 and 1)

The following example shows how to use this function to calculate a trimmed mean in practice.

Example: Calculate Trimmed Mean in Google Sheets

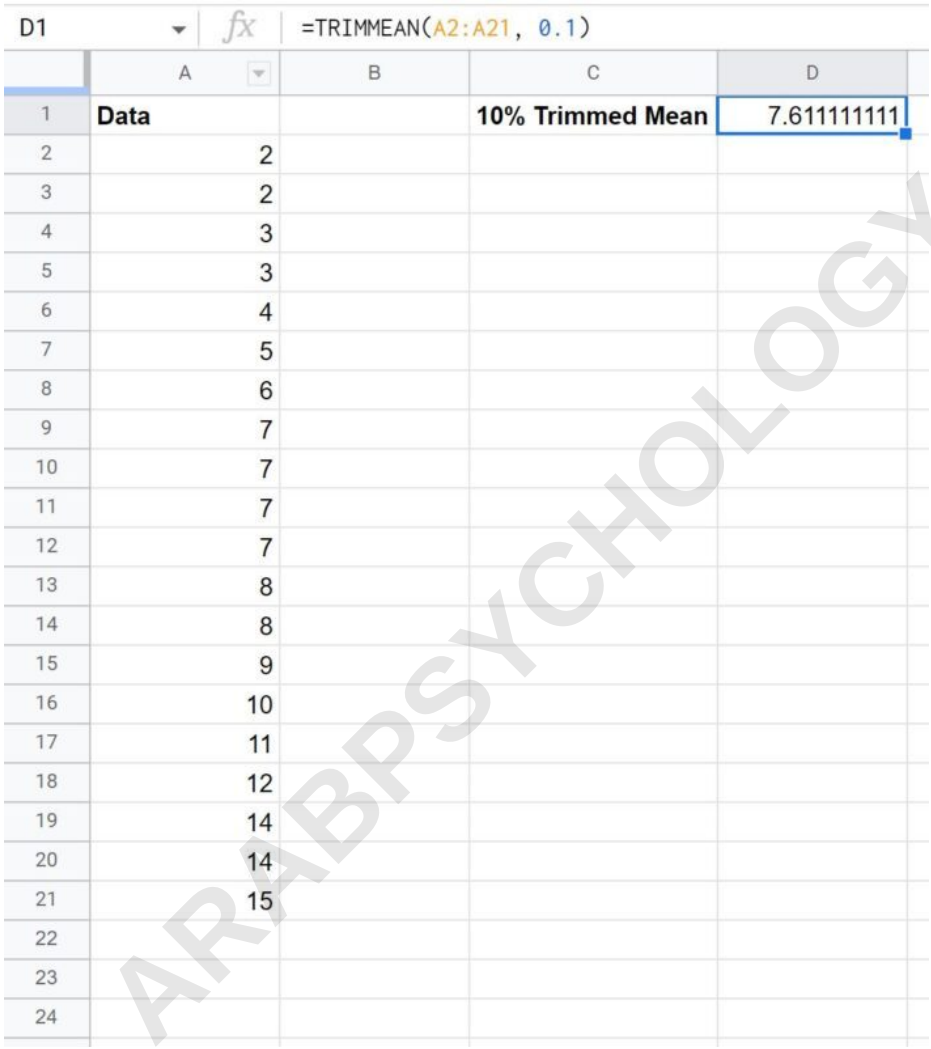
Suppose we have the following dataset in Google Sheets:

	A	B	C	D
1	Data			
2	2			
3	2			
4	3			
5	3			
6	4			
7	5			
8	6			
9	7			
10	7			
11	7			
12	7			
13	8			
14	8			
15	9			
16	10			
17	11			
18	12			
19	14			
20	14			
21	15			
22				
23				
24				

We can use the following formula to calculate a 10% trimmed mean for this dataset:

TRIMMEAN(A2:A21, 0.1)

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



D1 =TRIMMEAN(A2:A21, 0.1)

	A	B	C	D
1	Data		10% Trimmed Mean	7.611111111
2	2			
3	2			
4	3			
5	3			
6	4			
7	5			
8	6			
9	7			
10	7			
11	7			
12	7			
13	8			
14	8			
15	9			
16	10			
17	11			
18	12			
19	14			
20	14			
21	15			
22				
23				
24				

The 10% trimmed mean of the dataset is 7.61.

In this particular example, there are 20 total values in the dataset. Thus, 10% of 20 is 2.

So, to calculate a 10% trimmed mean in this example, Google Sheets needs to remove two values from the extremities of the dataset.

We can confirm the formula is correct by manually calculating this trimmed mean ourselves:

10% Trimmed Mean: (2+3+3+4+5+6+7+7+7+7+8+8+9+10+11+12+14+14) / 18 = 7.61.

Note that in this particular example, the values that were removed from the extremities were clearly not outliers.

However, a trimmed mean is most useful in practice when there are extreme outliers in the dataset and you'd like to calculate the mean value without allowing these outliers to .

The following tutorials provide additional information about trimmed means: