

How do I calculate Skewness and Kurtosis in Google Sheets?

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To calculate the Skewness and Kurtosis in Google Sheets, follow these steps:

1. Open a new or existing Google Sheets document.
2. Enter the data set for which you want to calculate the Skewness and Kurtosis.
3. Select the cell where you want to display the result.
4. Use the formula "`=SKEW(data)`" to calculate the Skewness, where "data" is the range of cells containing the data set.
5. Use the formula "`=KURT(data)`" to calculate the Kurtosis, where "data" is the range of cells containing the data set.
6. Press Enter to display the calculated values in the selected cell.
7. To view the results in a more readable format, you can also use the "Format" > "Number" > "More formats" option to change the number of decimal places.
8. Repeat the process for any other data sets you want to analyze.

In summary, by using the appropriate formulas in Google Sheets, you can easily calculate the Skewness and Kurtosis for any given data set. This can help you analyze the distribution and shape of your data, providing valuable insights for your data analysis and decision-making processes.

Calculate Skewness & Kurtosis in Google Sheets

In statistics, skewness and kurtosis are two ways to measure the shape of a distribution.

Skewness is a measure of the asymmetry of a distribution. This value can be positive or negative.

A negative skew indicates that the tail is on the left side of the distribution, which extends towards more negative values. A positive skew indicates that the tail is on the right side of the distribution, which extends towards more positive values. A value of zero indicates

that there is no skewness in the distribution at all, meaning the distribution is perfectly symmetrical.

Kurtosis is a measure of whether or not a distribution is heavy-tailed or light-tailed relative to a normal distribution.

The kurtosis of a normal distribution is 3. If a given distribution has a kurtosis less than 3, it is said to be *platykurtic*, which means it tends to produce fewer and less extreme outliers than the normal distribution. If a given distribution has a kurtosis greater than 3, it is said to be *leptokurtic*, which means it tends to produce more outliers than the normal distribution.

This tutorial explains how to calculate both the skewness and kurtosis of a given dataset in Google Sheets.

Example: Skewness & Kurtosis in Google Sheets

Suppose we have the following dataset:

	A	B	C	D
fx				
1	Data Values			
2	88			
3	85			
4	82			
5	97			
6	67			
7	77			
8	74			
9	86			
10	81			
11	95			
12	77			
13	88			
14	85			
15	76			
16	81			
17	82			
18	82			
19	84			
20	90			
21	91			
22				
23				
24				

To calculate the skewness and kurtosis of this dataset, we can use the **SKEW()** and **KURT()** functions with the following syntax:

SKEW(Array of values)KURT(Array of values)

It's important to note that either function will return the error **#DIV/0!** in the following two scenarios:

If there are fewer than three data points.If the sample standard deviation is zero.

The image below shows how to use these functions for our particular dataset:

	A	B	C	D	E
1	Data Values				Formula
2	88		Skewness	-0.18490	=SKEW(A2:A21)
3	85		Kurtosis	0.34624	=KURT(A2:A21)
4	82				
5	97				
6	67				
7	77				
8	74				
9	86				
10	81				
11	95				
12	77				
13	88				
14	85				
15	76				
16	81				
17	82				
18	82				
19	84				
20	90				
21	91				
22					
23					
24					

The skewness turns out to be -0.18490 and the kurtosis turns out to be 0.34624.

Additional Resource: Skewness & Kurtosis Calculator

Statology Skewness and Kurtosis Calculator