

How do I calculate a five number summary in Google Sheets?

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The process of calculating a five number summary in Google Sheets involves gathering a set of numerical data and organizing it in ascending order. The five number summary consists of the minimum value, first quartile, median, third quartile, and maximum value of the data set. These values can be easily obtained in Google Sheets by using the functions MIN, QUARTILE, MEDIAN, and MAX. By inputting the data into a column and using these functions, the five number summary can be quickly calculated and displayed, providing a clear understanding of the distribution of the data. This method is useful for analyzing and summarizing large sets of data in a concise and efficient manner.

Calculate a Five Number Summary in Google Sheets

A five number summary is a way to summarize a dataset using the following five values:

The minimum The first quartile The median The third quartile The maximum

The five number summary is useful because it provides a concise summary of the distribution of the data in the following ways:

It tells us where the middle value is located, using the median. It tells us how spread out the data is, using the first and third quartiles. It tells us the range of the data, using the minimum and the maximum.

By simply knowing these five values, we can know a great deal about a dataset.

How to Find a Five Number Summary in Google Sheets

We can use the following steps to find the five number summary of a dataset in Google Sheets:

Step 1: Enter all data values in one column.

First, enter the values of the dataset in one column:

fx	A	B	C	D
1	Data Values			
2	4			
3	6			
4	6			
5	7			
6	8			
7	12			
8	15			
9	17			
10	20			
11	21			
12	21			
13	23			
14	24			
15	27			
16	28			
17				
18				
19				
20				

Step 2: Calculate the five number summary.

The five values of the five number summary are shown in column D and the formulas used to find these values

are shown in column E:

	A	B	C	D	E
1	Data Values				
2	4		Minimum	4	=MIN(A2:A16)
3	6		1st Quartile	7.5	=QUARTILE(A2:A16, 1)
4	6		Median	17	=MEDIAN(A2:A16)
5	7		3rd Quartile	22	=QUARTILE(A2:A16, 3)
6	8		Maximum	28	=MAX(A2:A16)
7	12				
8	15				
9	17				
10	20				
11	21				
12	21				
13	23				
14	24				
15	27				
16	28				
17					
18					
19					
20					
21					
22					

Thus, the five number summary of this dataset is:

Minimum: 4 1st Quartile: 7.5 Median: 17 3rd Quartile: 22 Maximum: 28

From these five numbers we can get a good idea of where the center of the dataset is located, how spread out the values are, and the range of values.

Technical Note:

There are two quartile functions in Google Sheets:

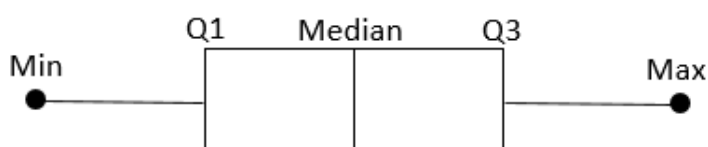
QUARTILE.INC() - Calculates percentiles using "greater than or equal to" in an "inclusive" manner.

QUARTILE.EXC() - Calculates percentiles using "greater than" in an "exclusive" manner.

The default function **QUARTILE()** uses the **QUARTILE.INC()** method.

Visualize a Five Number Summary

One of the easiest ways to visualize a five number summary is by creating a boxplot, which uses a box with a line in the middle along with "whiskers" that extend on each end to represent the minimum and maximum values.



Feel free to use the [Statology Boxplot Generator](#) to automatically create a boxplot for a given dataset.

You can also follow [this tutorial](#) to find out how to create a boxplot in Google Sheets for a given dataset.

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