

How do I calculate the midrange in Google Sheets?

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The process of calculating the midrange in Google Sheets involves finding the average of the highest and lowest values in a set of data. This can be achieved by using the functions "MAX" and "MIN" to determine the highest and lowest values, and then dividing their sum by 2. The midrange is a useful measure of central tendency and can be easily calculated in Google Sheets, making it a convenient tool for data analysis and statistical calculations.

Calculate the Midrange in Google Sheets

The midrange of a dataset is calculated as:

$$\text{Midrange} = (\text{largest value} + \text{smallest value}) / 2$$

This value is simply the average of the largest and smallest values in the dataset and it gives us an idea of where the center of a dataset is located.

This tutorial explains how to calculate the midrange of a dataset in Google Sheets.

Example: How to Calculate the Midrange in Google Sheets

Suppose we have the following dataset in Google Sheets:

	A	B	C	D
1	Data values			
2	12			
3	14			
4	15			
5	15			
6	16			
7	17			
8	18			
9	20			
10	24			
11	25			
12	26			
13	29			
14	32			
15	34			
16	37			
17				
18				
19				
20				

To calculate the midrange of this dataset, we can use the following formula:

$$=(\text{MAX}(\text{range of values}) + \text{MIN}(\text{range of values})) / 2$$

Here's what that looks like for our dataset:

	A	B	C	D	E
1	Data values				
2	12		Midrange	24.5	<code>= (MAX(A2:A16)+MIN(A2:A16))/2</code>
3	14				
4	15				
5	15				
6	16				
7	17				
8	18				
9	20				
10	24				
11	25				
12	26				
13	29				
14	32				
15	34				
16	37				
17					
18					
19					
20					

The midrange for this dataset is 24.5.

Drawbacks of Using the Midrange

The drawback of using the midrange is that it can be easily influenced by outliers. If the minimum value of a dataset is unusually small or if the maximum value is unusually large, this can have a huge impact on the calculation of the midrange.

For example, consider if the maximum value in our dataset was 120. The midrange would then be equal to **66**:

	A	B	C	D	E
1	Data values				
2	12		Midrange	66	$=(MAX(A2:A16)+MIN(A2:A16))/2$
3	14				
4	15				
5	15				
6	16				
7	17				
8	18				
9	20				
10	24				
11	25				
12	26				
13	29				
14	32				
15	34				
16	120				
17					
18					
19					
20					

A better way to find where the "center" of this dataset is located is to use the mean or the median of the dataset.

	A	B	C	D	E
1	Data values				
2	12		Midrange	66	= $(\text{MAX}(A2:A16)+\text{MIN}(A2:A16))/2$
3	14		Mean	27.8	= $\text{AVERAGE}(A2:A16)$
4	15		Median	20	= $\text{MEDIAN}(A2:A16)$
5	15				
6	16				
7	17				
8	18				
9	20				
10	24				
11	25				
12	26				
13	29				
14	32				
15	34				
16	120				
17					
18					
19					
20					

Notice that the mean and the median are less prone to being influenced by outliers compared to the midrange and they give us a more accurate idea of where the center of the dataset is actually located.

How to Calculate the Midrange in Excel