How do I calculate quintiles in Google Sheets?

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Calculating quintiles in Google Sheets can be done using the QUARTILE function. This function allows you to divide a dataset into five equal parts, with each part representing a quintile. To do this, you need to input the range of cells containing your data and the quintile number (1 for the first quintile, 2 for the second, and so on) into the formula. The resulting value will be the cutoff point for each quintile, making it easy to identify the values falling within each quintile. This function is useful for analyzing and understanding the distribution of your data in a quick and efficient manner.

Calculate Quintiles in Google Sheets

In statistics, quintiles are numbers that split a dataset into five groups of equal frequency.

The first quintile is the point where 20% of all data values lie below it.The second quintile is the point where 40% of all data values lie below it.The third quintile is the point where 60% of all data values lie below it.The fourth quintile is the point where 80% of all data values lie below it.

We can use the following basic formula to calculate the quintiles for a dataset in Google Sheets:

=PERCENTILE(CELL RANGE, QUINTILE)

For example, we can use the following formula to calculate the first quantile in the range A1:A10:

=PERCENTILE(A1:A10, 0.2)

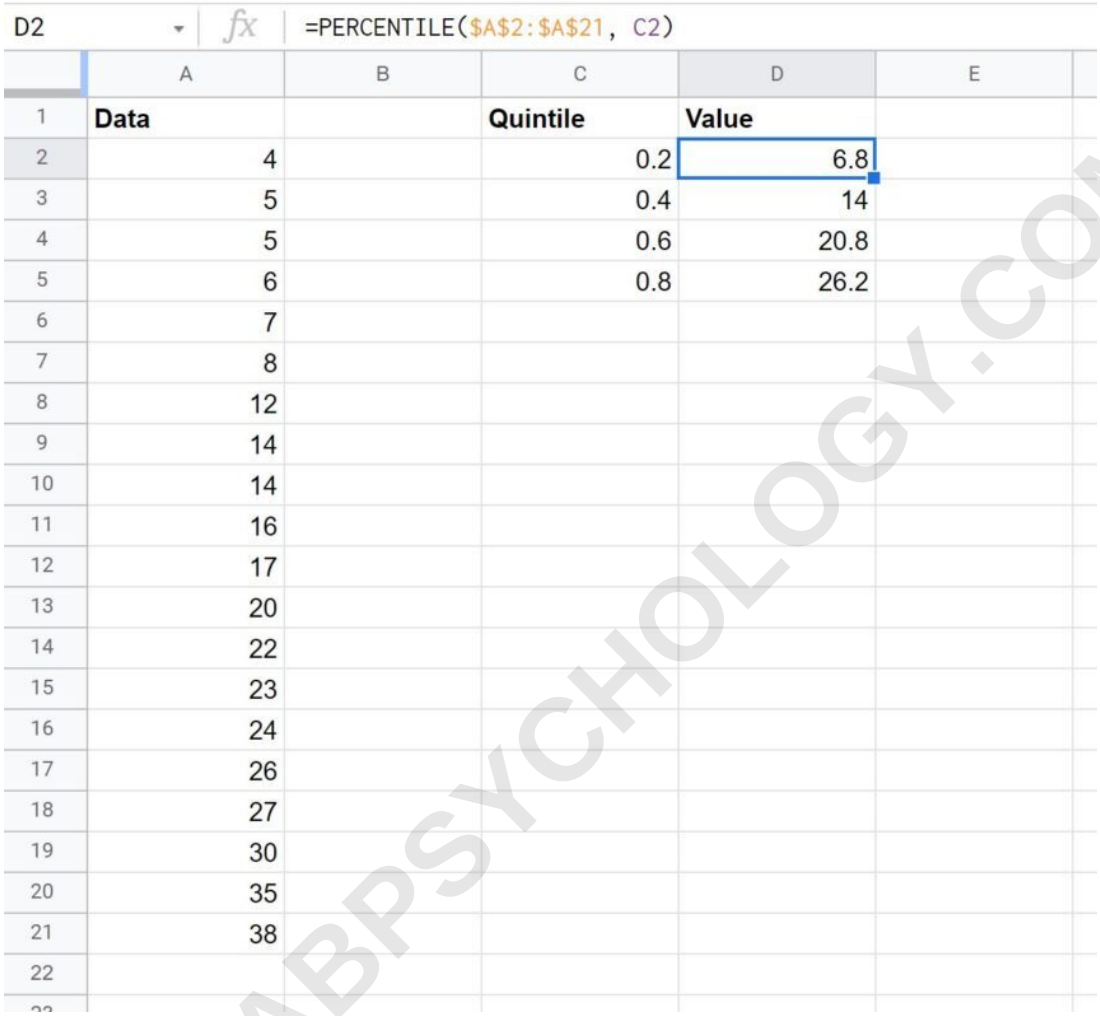
The following example shows how to use this function in practice.

Example: Calculate Quintiles in Google Sheets

Suppose we have the following dataset in Google Sheets with 20 values:

	A	B	C	D	E
1	**Data**				
2	4				
3	5				
4	5				
5	6				
6	7				
7	8				
8	12				
9	14				
10	14				
11	16				
12	17				
13	20				
14	22				
15	23				
16	24				
17	26				
18	27				
19	30				
20	35				
21	38				
22					
23					
24					

The following screenshot shows how to calculate the quintiles for the dataset:



	A	B	C	D	E
1	Data		Quintile	Value	
2	4		0.2	6.8	
3	5		0.4	14	
4	5		0.6	20.8	
5	6		0.8	26.2	
6	7				
7	8				
8	12				
9	14				
10	14				
11	16				
12	17				
13	20				
14	22				
15	23				
16	24				
17	26				
18	27				
19	30				
20	35				
21	38				
22					

Here is how to interpret the quintile values:

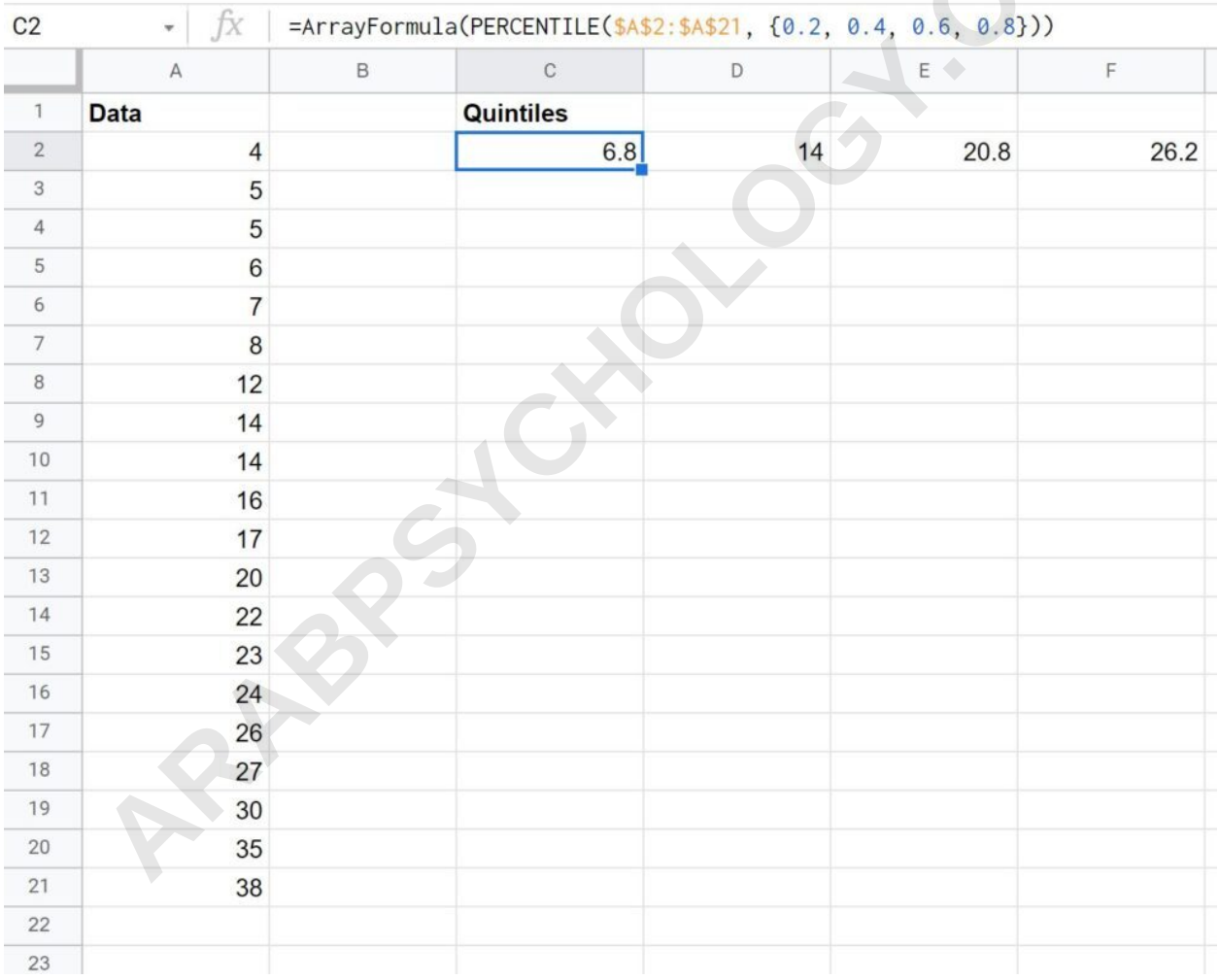
20% of all data values lie below 6.8.40% of all data values lie below 14.60% of all data values lie below 20.8.80% of all data values lie below 26.2.

We can also use the following formula to calculate each

quintile at the same time:

=ArrayFormula(PERCENTILE($A$2:$A$21, {0.2, 0.4, 0.6, 0.8}))

The following image shows how to do so:



Notice that these quintile values match the ones we calculated earlier.

Additional Resources

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