

# How do I calculate quintiles in Excel with examples?

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## RECOMMENDED CITATION

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Quintiles in Excel refer to a statistical measure that divides a data set into five equal parts, with each part containing 20% of the data. This is useful for analyzing the distribution of numerical data and identifying outliers or extreme values. To calculate quintiles in Excel, you can use the QUARTILE function or the PERCENTILE function. For example, if you have a data set of test scores ranging from 0 to 100, you can use the QUARTILE function to find the scores at the 20th, 40th, 60th, and 80th percentiles, which would give you the quintiles. These values can then be used to create a box plot or to compare the distribution of the data among different groups. Using quintiles in Excel can provide valuable insights into the spread and variability of your data, aiding in decision making and analysis.

## Calculate Quintiles in Excel (With Examples)

**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, and so forth.**

**We can use the following function to calculate the quintiles for a dataset in Excel:**

**=PERCENTILE(CELL RANGE, QUINTILE)**

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

**Example: Calculate Quintiles in Excel**

**Suppose we have the following dataset with 20 values:**

	A	B	C	D	E	F	G
1	<b>Data</b>						
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							
25							

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

	A	B	C	D	E	F	G	H	I
1	<b>Data</b>			<b>Quintile</b>	<b>Value</b>				
2	4			0.2	6.8	=PERCENTILE(\$A\$2:\$A\$21, D2)			
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								
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19	30								
20	35								
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25									

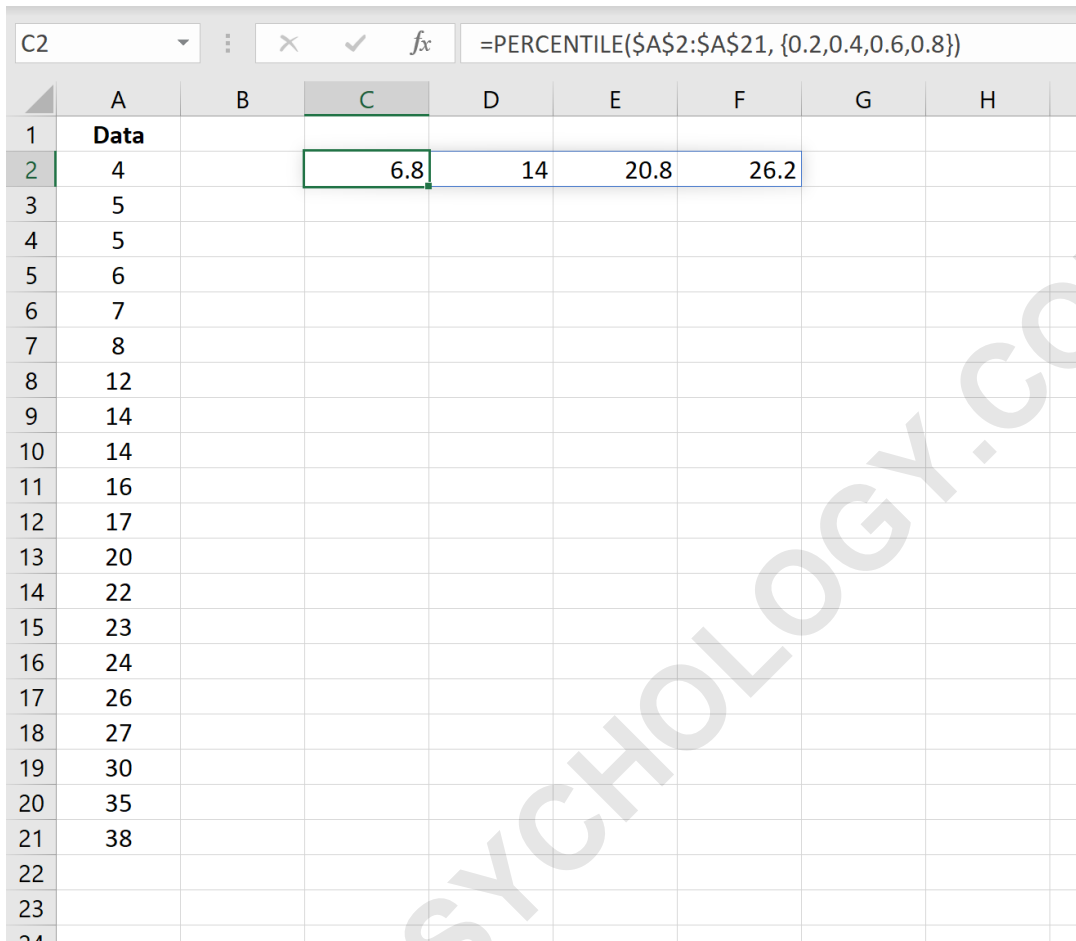
**The way to interpret the quintiles is as follows:**

**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:**

**=PERCENTILE(CELL RANGE, {0.2, 0.4, 0.6, 0.8})**

The following image shows how to do so:



The image shows an Excel spreadsheet with a data column in column A and calculated quintiles in columns C, D, E, and F. The formula bar at the top shows the formula: `=PERCENTILE($A$2:$A$21, {0.2,0.4,0.6,0.8})`. The data in column A is as follows:

	A	B	C	D	E	F	G	H
1	<b>Data</b>							
2	4		6.8	14	20.8	26.2		
3	5							
4	5							
5	6							
6	7							
7	8							
8	12							
9	14							
10	14							
11	16							
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19	30							
20	35							
21	38							
22								
23								
24								

Notice that the quintiles calculated here match the quintiles we calculated earlier.