Quartiles

Quartiles are values that divide your data into quarters. The four quarters that divide a data set into quartiles are:

1. The lowest 25% of numbers.
2. The next lowest 25% of numbers (up to the median).
3. The second highest 25% of numbers (above the median).
4. The highest 25% of numbers.

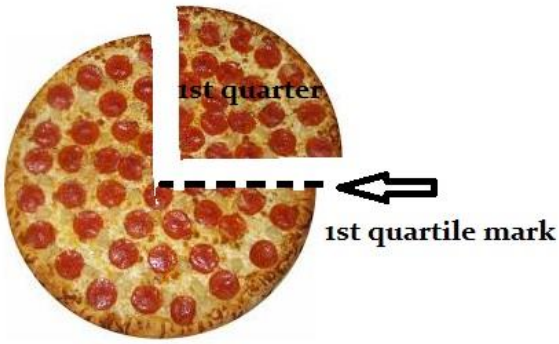
As quartiles divide numbers up according to where their position is on the number line, you have to put the numbers in order before you can figure out where the quartiles are.

Ex: Divide the following data set into quartiles: 2, 5, 6, 7, 10, 22, 13, 14, 16, 65, 45, 12.

Step 1: Put the numbers in order: 2, 5, 6, 7, 10, 12 13, 14, 16, 22, 45, 65.
Step 2: Count how many numbers there are in your set and then divide by 4 to cut the list of numbers into quarters. There are 12 numbers in this set, so you would have 3 numbers in each quartile.
2, 5, 6, | 7, 10, 12 | 13, 14, 16, | 22, 45, 65

Difference between a quarter and a quartile

A quarter of the pizza is the whole slice; a quartile marks the end of the first quarter and the beginning of the second.



Interquartile Range

The interquartile range is a measure of where the middle fifty is in a data set. Where a range is a measure of where the beginning and end are in a set, an interquartile range is a measure of where the bulk of the values lie.

The interquartile range formula is: $IQR = Q_3 - Q_1$