

1. How can we figure out what the interquartile range is?

- **Step 1: Put the numbers in order.**
1, 2, 5, 6, 7, 9, 12, 15, 18, 19, 27.
- **Step 2: Find the median.**
1, 2, 5, 6, 7, **9**, 12, 15, 18, 19, 27.
- **Step 3: Place parentheses around the numbers above and below the median.**
Not necessary **statistically**, but it makes Q1 and Q3 easier to spot.
(1, 2, 5, 6, 7), 9, (12, 15, 18, 19, 27).
- **Step 4: Find Q1 and Q3**
Think of Q1 as a median in the lower half of the data and think of Q3 as a median for the upper half of data.
(1, 2, **5**, 6, 7), **9**, (12, 15, **18**, 19, 27). Q1 = 5 and Q3 = 18.
- **Step 5: Subtract Q1 from Q3 to find the interquartile range.**
 $18 - 5 = 13$.

2. What exactly is the value of the 5-number theory?

It is Minimum , 25 th Percentile , Median , 75 th Percentile , Maximum Value

3. What is the relationship between standard deviation and variance?

Standard deviation is the spread of a group of numbers from the mean. The variance measures the average degree to which each point differs from the mean. While standard deviation is the square root of the variance, variance is the average of all data points within a group.

4. What does the difference between variance and standard deviation mean?

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5. When is it appropriate to refer to a skewed data distribution?

A skewed distribution is neither symmetric nor normal because the data values trail off more sharply on one side than on the other.

