Unit 8 Vocabulary and Big Ideas: Analyzing Statistics

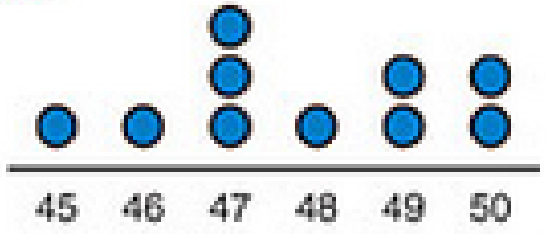
Numerical Data: Data involving numbers and quantities.

Examples: The number of students in a class. The population of a city every year for the last 10 years.

Mode: The number that occurs most often in a set of data. A set of data may have no modes, one mode, or more than one mode.

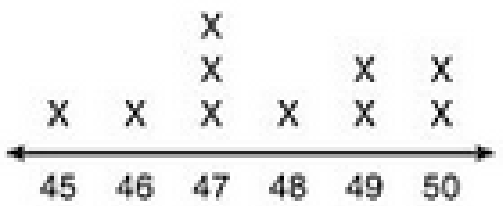
Dot Plot: A display showing the frequency of numerical data. A dot plot uses a number line and dots to show how often the numbers in a set of numerical data occur.

Example:



Line Plot: A diagram that shows the frequency of data on a number line.

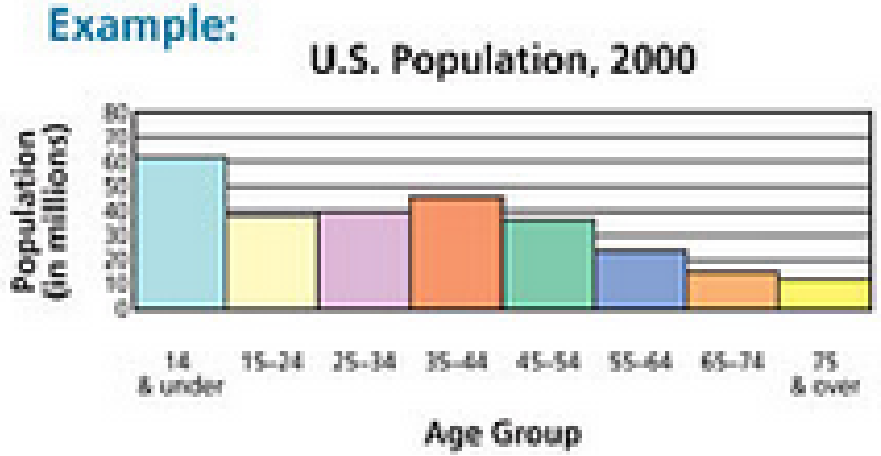
Example:



Interval: A range of numbers in a frequency display such as a histogram. An interval is sometimes called a *bin*.

Histogram: a frequency display that uses bars to show the distribution of data in a set. Each bar represents an interval, or range, of data.

Example:



Median: When you put your numerical data in order, your median will be the middle number in that set. If there is no middle number, the median is the mean of the two middle numbers (number+number/2).

Examples:

2 5 7 11 20

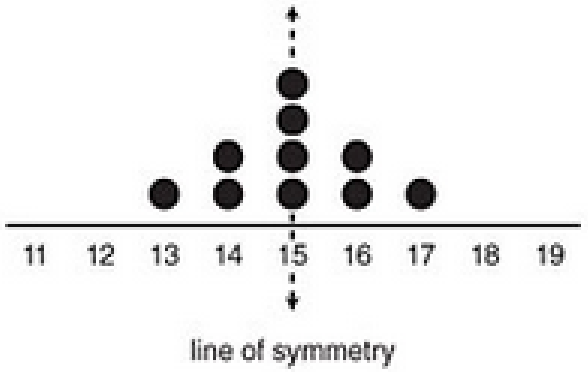
median = 7

39 26 24 3

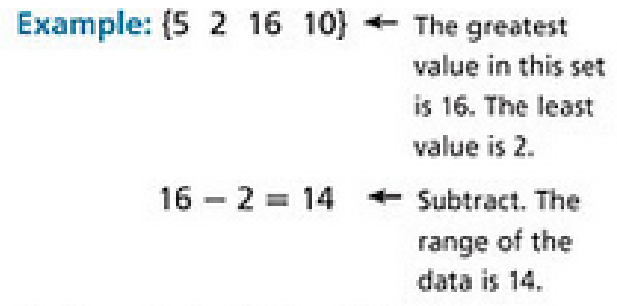
median = 25

Symmetric: A data distribution that has a line of symmetry. The shape of the data on one side of the line of symmetry is the same as the other. Essentially, you could fold the in half.

Example:

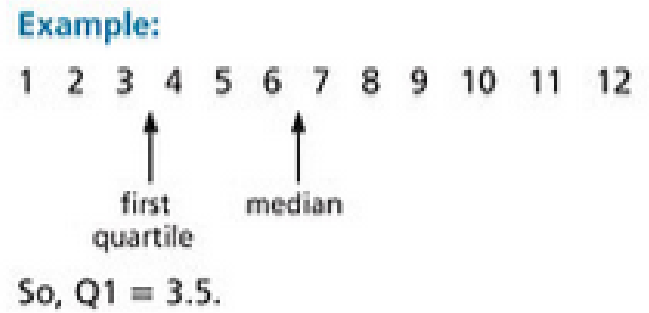


Range: The difference in the data figured by taking the least number in the set from the greatest. It summarizes the variability of the data in the set.

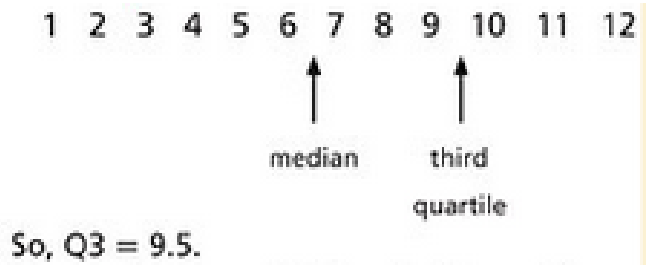


Quartiles: The values of the points that separate a set of data into four approximately equal parts.

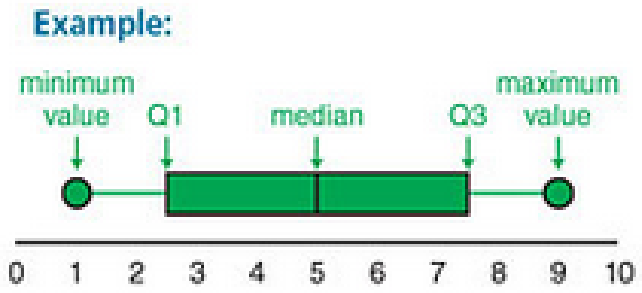
First Quartile: The middle number, or mean of the two middle numbers, of the lower half of a set of data.



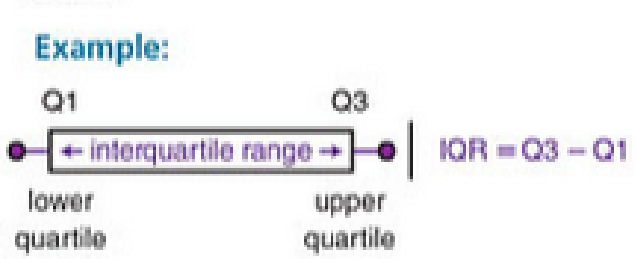
Third Quartile: The middle number, or the mean of the two middle numbers, of the upper half of a set of data.



Box Plot: A graphic summary that shows the median, quartiles, and minimum and maximum values of a set of data.

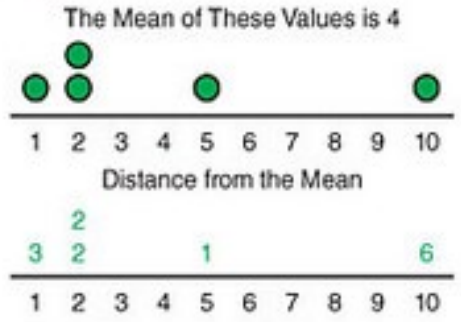


Interquartile Range: A measure of the difference between the upper and lower quartiles. IQR is a way to describe the spread or variability of the data in a set.



Mean Absolute Deviation: a measure of variability that shows the average distance the data values are from the mean.

Example:



The mean absolute deviation is
$(3 + 2 + 2 + 1 + 6) \div 5 = 2.8$.

Cluster: A group of data values. A data set may have no clusters, one cluster, or more than one cluster.

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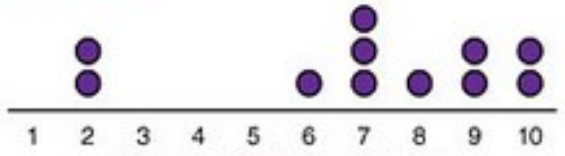
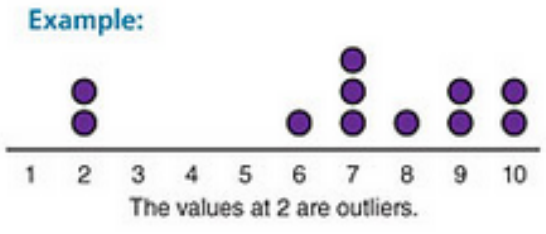
Example:

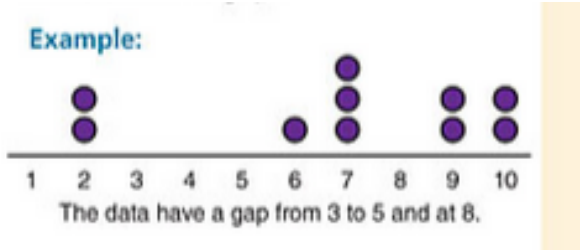


The data cluster from 6 to 10.

Outlier: An extreme distance or value. A set of data may have no, one, or more than one outliers.



Gap: An interval with no data. A set may have one gap, no gaps, or more than one gap.



Peak: The value (or values) that appear most often. A set of data may have no peaks, one peak, or more than one peak.