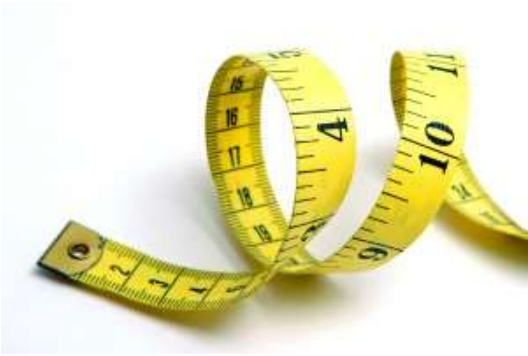
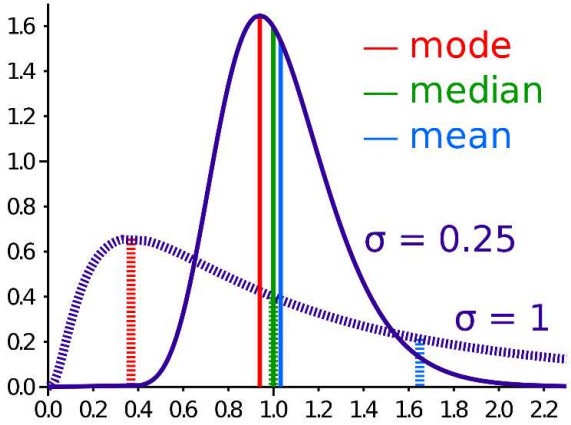


Measures of Summary

Measures of Summary

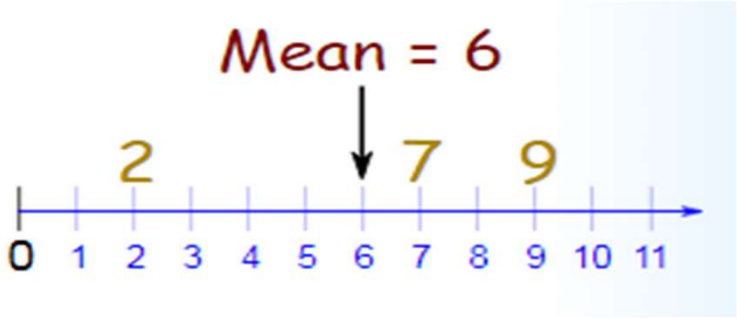
- Mean
  - Arithmetic Mean
  - The sum of observations divided by the total number of observations
- Median
  - Is the "middle" of a sorted list of numbers.
- Mode
  - Refers to the most frequently occurring number found in a set of numbers.



Mean

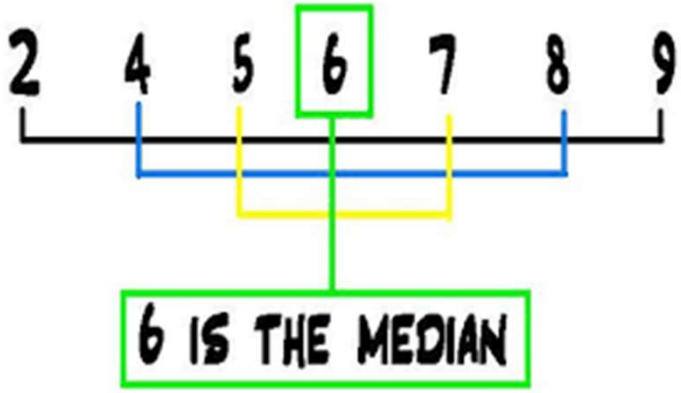
- The mean of a dataset is the numerical average
- Can be computed by dividing the sum of all the data points by the number of data points:

$$\bar{x} = \frac{\sum_{i=0}^{n} x_i}{n}$$



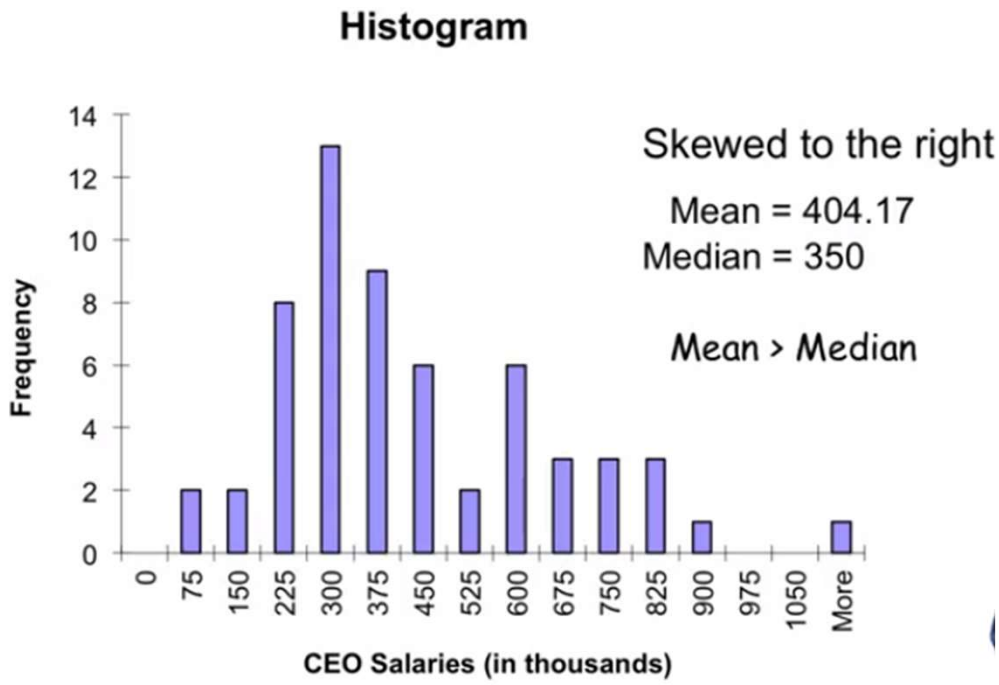
Median

- The median of a dataset is the data point that is directly in the middle of the data set.
- The median is robust to outliers, therefore an outlier will not affect the value of the median.



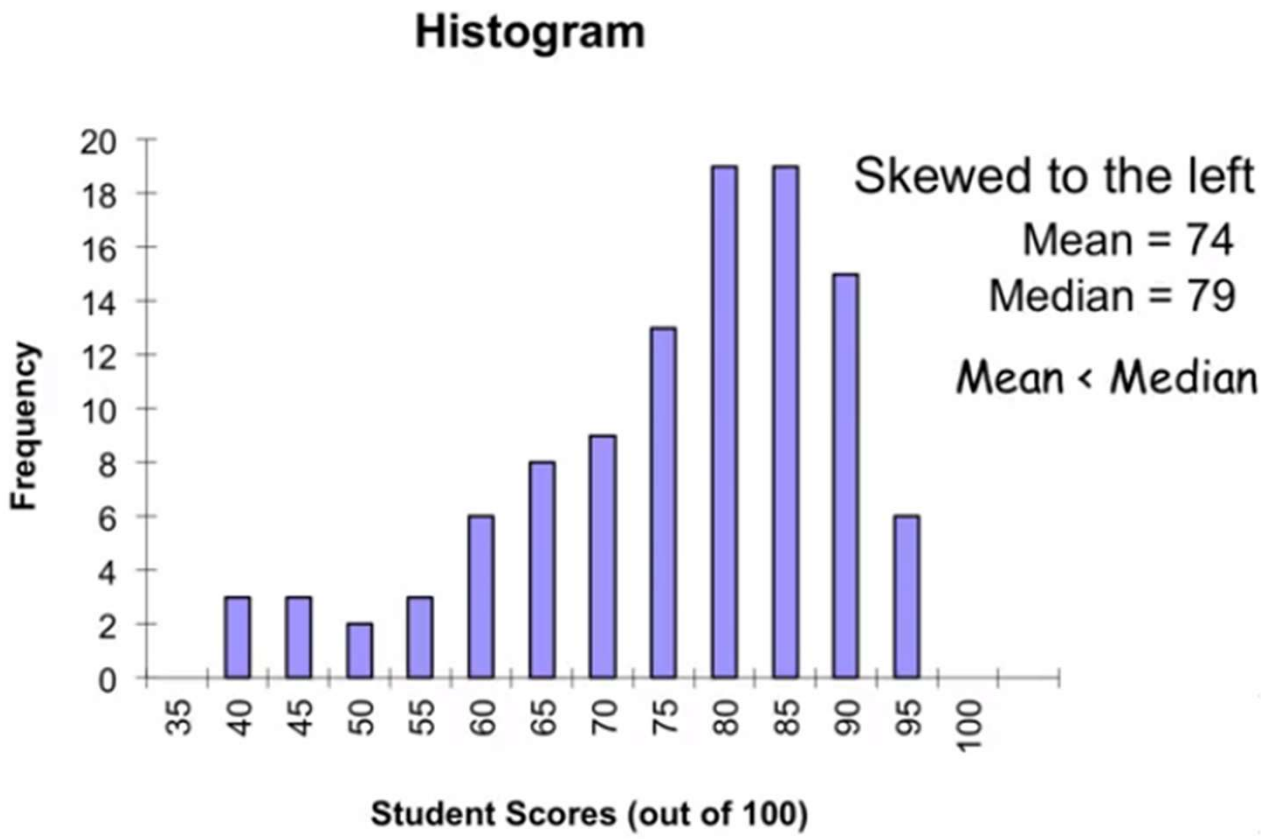
Mean vs Median

- Relates to the skewness of data
- Histogram shows the skewness of data.
- Mean is greater than median in below chart.



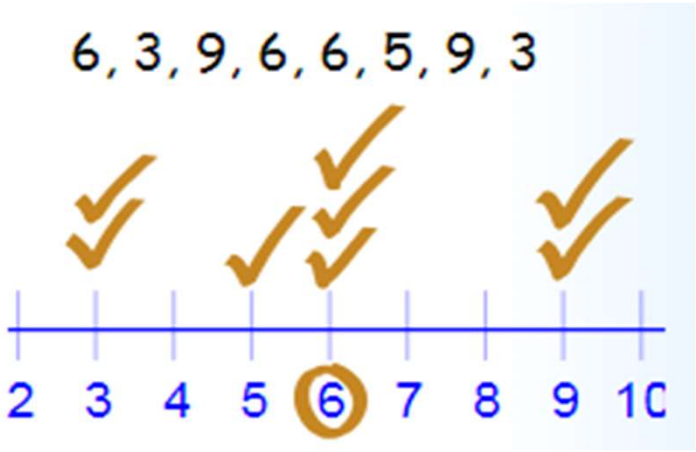
Mean vs Median

- Left Skewed Data

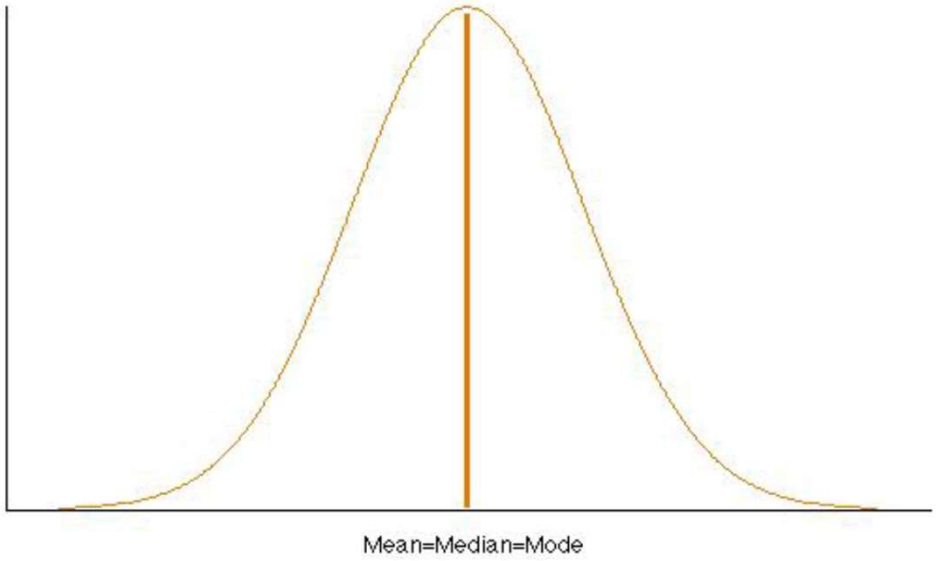


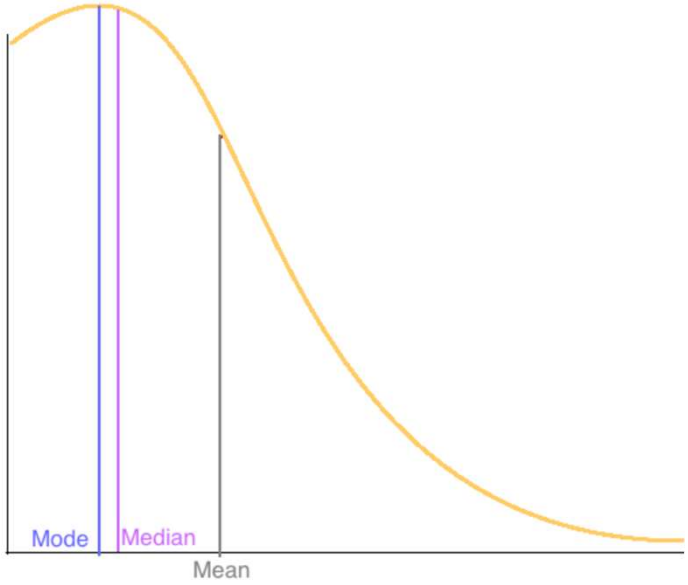
Mode

- The most frequently occurring value in a set of data
- The mode is robust to outliers as well.
- In the normal distribution the mean = median = mode.



Central Tendency






Thank
you !!!