## **Summary Statistic Definitions!**

Mean (Sample) = sum of all data values divided by number of data points

(note - only works with "numerical" data types... more about data types later)

Median = if we order the data from smallest to largest, this is the observation in the middle (splits the data in 2 halves)

First/Third Quartiles > where 25% of the data falls below/above

Standard Deviation = this is the square root of the variance, where the variance is roughly the average distance of data values from the mean

Standard Deviation (sample) = 
$$\sqrt{\frac{\sum_{i=1}^{n} (x_i - \text{mean})^2}{n-1}}$$