Name _____ Date _____

Facts to Review

- To calculate the mean, you add all of the numbers and divide by how many numbers there are.
- To find the median, put the numbers in order from least to greatest and find the value in the middle.
- To find the mode, locate the number that appears the most (There can be none or more than one).
- You can find the mean ($\bar{x}$) and the median using your calculator.
- A histogram is used to display the frequency of intervals.
- A dot plot is a visual display of where each data value falls on a number line.
- A box plot shows the minimum number, maximum, median and the first and third quartiles.
- To find the interquartile range (IQR), you subtract the third quartile and the first quartile.
- To calculate outliers, you multiply the IQR by 1.5. You then take that number and subtract it from the first quartile and you add it to the third quartile. Data should fall in between those two answers. If it doesn't, it's an outlier.

Don't have to know :)

- Qualitative data involves data with descriptions (categorical)------Quality. (can't be measured)
- Quantitative data involves data with numbers (numerical)---------Quantity. (can be measured)
- Biased data is when the group surveyed has some vested interest in the topic.
- Univariate data is data that contain one variable.
- Bivariate data is data that contains two variables.
- A scatter plot shows bivariate data (you do not connect the dots in a scatter plot).
- Line of best fit, trend line, line of regression, and least squares line are all names for a line draw on a scatter plot to show the trend of the data.
- The line of best fit helps us to see if the data has a positive or negative correlation.
- Positive correlation is when one variable increases, so does the other (dots would tend to go upward).
- Negative correlation is when one variable increases, the other decreases (dots would tend to go downward).
- The closer the dots are to the line of best fit, the higher or stronger the correlation.
- We also use the line of best fit to make predictions by substituting information given either into x or y in the equation.
- It is called interpolation when we are predicting information that falls inside of the given data.
- It is called extrapolation when we are predicting information that falls outside of the given data.
- Causation is when one variable causes the other variable to change (One has an effect on the other).
- The correlation coefficient is the r value from your calculator. The closer it is to +1 or -1, the stronger the correlation.
- Residuals are calculated by first finding the predicted value, then subtracting that from the original value. The closer the residual is to 0, the closer the dot is to the line.