Name_____

Fall 2021 Data Project 1 (100points)

Due by September 29 @ 1:30 pm

Look around your living space or current surroundings and find a quantitative continuous variable for which you can collect at least 20 observations (examples: The length of the first 25 songs on a Spotify playlist or the monetary amounts for the last 22 checks/debit card withdrawals on your checking account). This is NOT to be a list of data on the Internet. The data is to be something you must collect or measure.

The important thing it that you use data that is Quantitative and continuous.

Include a table of your collected data. I need this data table in a spreadsheet.

You may use technology for all parts. No need to calculate these values by hand.

a. Find the five number summary for your data. (10 points)

b. Find the mean and the standard deviation of your data. (10 points)

c. Draw a boxplot (10 points)

 d. Create a Frequency Table and make sure to add a column displaying relative frequency and cumulative frequency. (20 points)

e. Draw a histogram representing your relative frequency table (10 points)

f. Refer to your picture in part c and e. Comment on the shape/center/spread. Include a discussion about what is the most appropriate measure of center and spread (Part a or part b) (15 points)

g. Decide if there are any outliers by using an outlier test we have studied. Make sure that you are using the most appropriate measures of center and spread as you outlined in part f. (10 points)

h. Compare the mean and the median. Explain whether the relationship between them is what you would expect based on the information you discussed in part f. Hint: you want to be thinking about the shape (15 points)

I need your data to check your work.

No data = 0 for a grade.

Not enough data or the wrong type of data means a 50% for a maximum grade.