MATH 21-01 (Introductory Statistics), HW1 (100 points). Due: 01/27/2017 in class.

Not from textbook (50 / 100 pts)

Note: Please prepare the R part of the homework on the computer. Please supply both the R commands you used and the requested plots as part of your homework.

Download and install the R package. See notes on class website. Some helpful links: http://www.harding.edu/fmccown/r/, http://www.statmethods.net/input/contents.html, http://www.r-tutor.com/r-introduction/data-frame/data-import.

Get stock prices for the past 3 months of Boeing stock (BA). To do so, go to http://finance.yahoo.com/quote/BA. Click on Historical Data.

Select time period: 10/22/2016 to 1/22/2017. Make sure to use these dates. Click on download data. This will allow you to download a file called table.csv (comma separated value format).

Question 1:

- (a, 5 pts) Load the data into R (hint, use command mydata = read.csv("table.csv"))

- (b, 5 pts) Print the names of the data columns (hint, use command names(mydata))

- (c, 8 pts) Use the plot command to make a plot of the high (hint,mydata$High) and low prices (hint, mydata$Low) versus the date. Label both axes. Prices should be on the vertical axis.

- (d, 8 pts) Make bar plots and histograms of High and Low prices. Label both axes. Say a few words about each plot.

- (e, 9 pts) When (on which date) was the highest price of the period? The lowest?(Hint, you may make use of the min and max commands in R).

Question 2:
Consider the following data:
$$X = \{10, 12, 1, 2, -8, 9, 3, 3, 4, 5, -8\}$$

- (a, 6 pts) What is the mean, median, and mode of X?

- (b, 9 pts) Compute Q1, Q2, Q3 for data X.

From textbook (50 / 100 points)

You are free to handwrite or type this part but make sure you attach your answers to the first part of the homework (only hand in one document with your name on it). Please clearly state your answer to each problem.

- Section 1-2: 1,2,3,5-8,17,18

- Section 1-3: 7,9,13,14,17

- Section 1-4: 1,2