Assignment 1

Part 1: Based on Handout 1 R (use the same source data), apply R to answer the following questions. Make sure you include the command line/code, then paste relevant output/results, and also comment on the output/results as needed (to answer the questions).

1. Make a scatterplot of weight versus desired weight. Describe the relationship between these two variables.
2. Let's consider a new variable: the difference between desired weight (`wtdesire`) and current weight (`weight`). Create this new variable by subtracting the two columns in the data frame and assigning them to a new object called `wdiff`.
3. What type of data is `wdiff`? If an observation `wdiff` is 0, what does this mean about the person's weight and desired weight? What if `wdiff` is positive or negative?
4. Describe the distribution of `wdiff` in terms of its center, shape, and spread, including any plots you use. What does this tell us about how people feel about their current weight?
5. Using numerical summaries and a side-by-side box plot, determine if men tend to view their weight differently than women.
6. Now it's time to get creative. Find the mean and standard deviation of `weight` and determine what proportion of the weights are within one standard deviation of the mean.

Part 2: Based on Handout 1 SAS (use the same source data), apply SAS to answer the above questions. Make sure you include the command line/code, then paste relevant output/results, and also comment on the output/results as needed (to answer the questions).

Part 3: Save your file as *DA460_Assignment1_XXXXX.docx (or .pdf)* where *XXXXX* is the first five letters of your last name, and submit it online.