Name: Steve G. Mwangi
Date: October 5, 2019
Assignment: TMATH 390 R Lab 1 Document.

C1. (4) Submit your R scripts to Canvas. You can upload them directly to your assignment as *.R documents.
Submitted
From RIntro1.pdf
C2. (2) From the RIntro1.pdf lab, copy and paste the results of the head(anscombe1.df) command (section 3.1).
> head(anscombe1.df)
   X1 Y1
1 8.04 10
2 6.95 8
3 7.58 13
4 8.81 9
5 8.33 11
6 9.96 14

C3. (2) From the RIntro1.pdf lab, copy and paste the results of the summary(anscombe1.df$X1) command. (section 4.1).
> summary(anscombe1.df$X1)
  Min. 1st Qu. Median   Mean 3rd Qu.   Max.
 4.260 6.315 7.580 7.501 8.570 10.840
C4. (4) From the RIntro1.pdf lab, copy and paste the histogram, boxplot, and scatter plot (section 5.1) *Note: in the R plotting window, after creating a plot, you can go to Export–>Copy to clipboard. This will allow you to copy the graph from R into a document.*
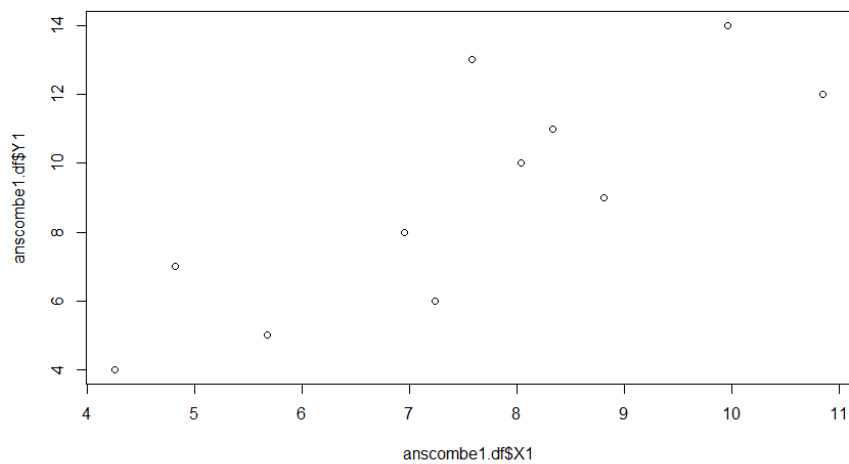
Graph 1 Histogram of the first column
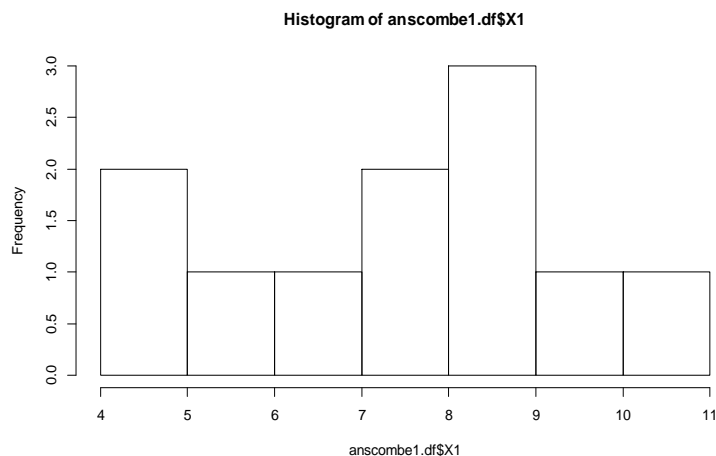
In the histogram we see a roughly symmetric distribution. But from the small sample it is difficult to discern the shape.
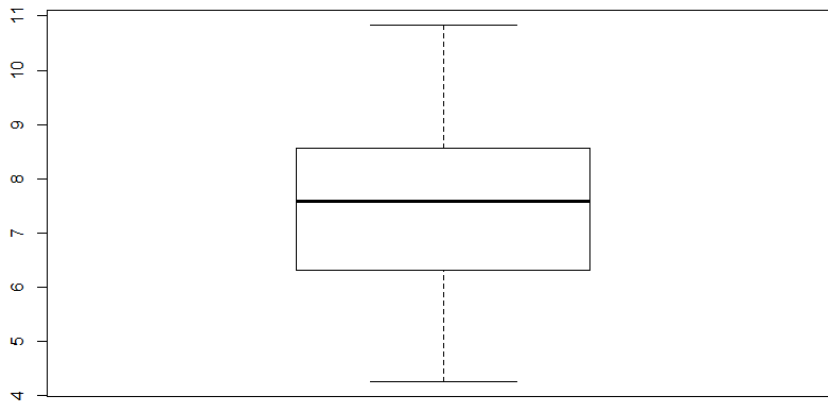
From the boxplot, we see a distribution that is roughly symmetric without outliers.

*Graph 3 Scatterplot with X1 on the x-axis and Y1 on the y-axis*

From the scatterplot, there is no discernable relationship between X1 and Y1. There might be a slight positive relationship, but this could be determined by further calculating a correlation coefficient.

C5. (3) From the RIntro_Graphing.pdf lab, submit vertical boxplots of your x.fake and y.fake variables (section 1.1)

Graph 4 Boxplot for the fake x data on the first panel and the fake y data on the second panel.
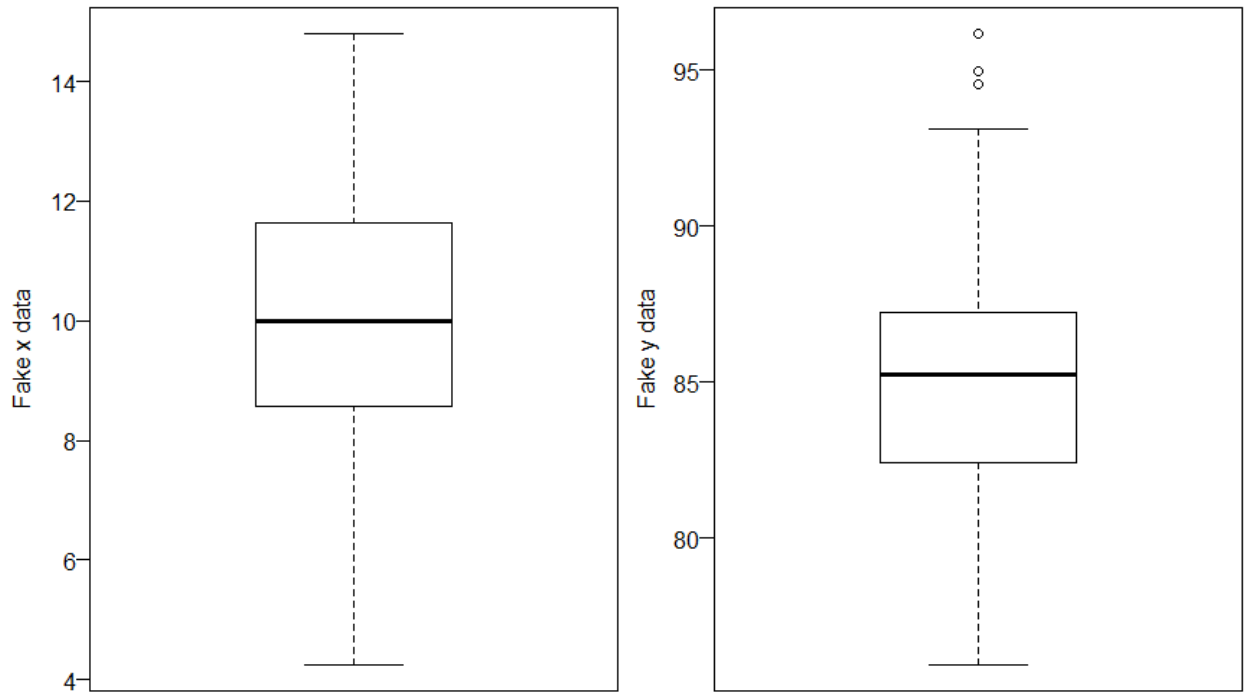
Boxplot of fake x data on first panel has a distribution that is roughly symmetric without outliers, while boxplot of fake y data on second panel has roughly symmetric distribution with outliers.

C6. (3) From the RIntro_Graphing.pdf lab, submit histograms of your x.fake and y.fake variables (section 2.1)

Graph 5 Histogram for fake x and fake y data on the first and second panel respectively.
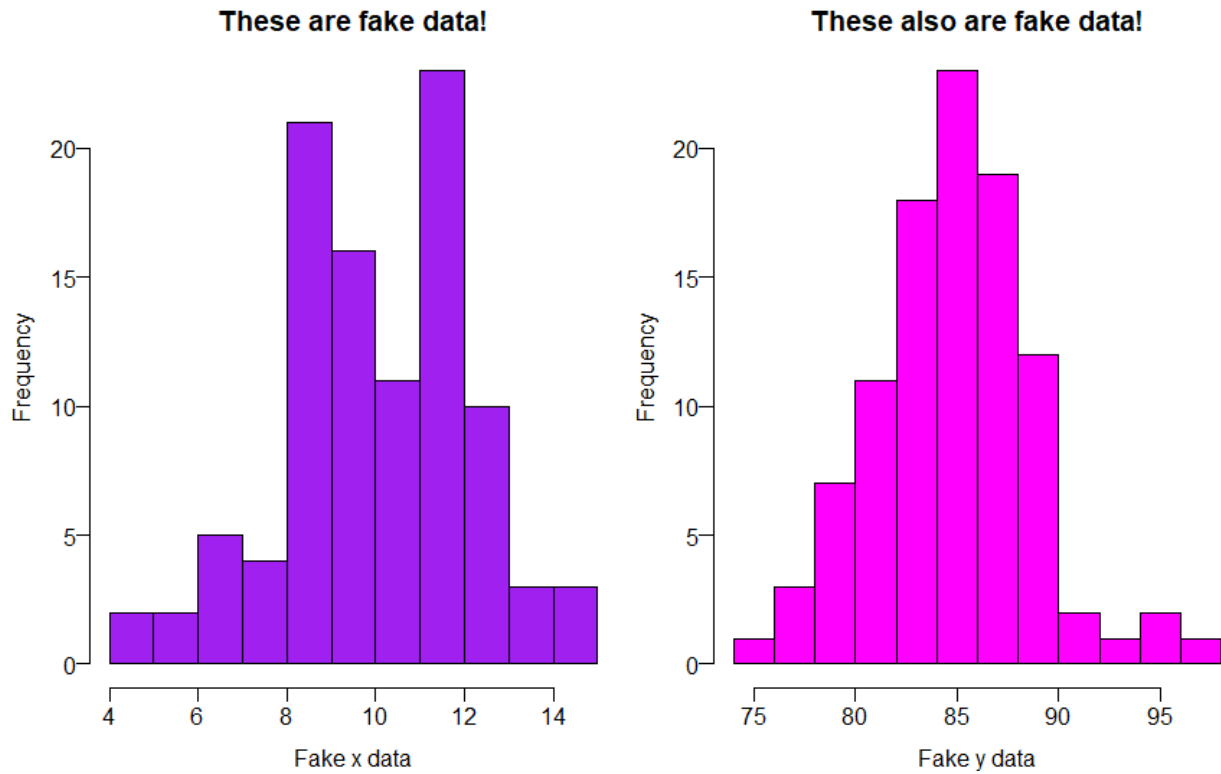
Both histograms show a roughly symmetric distribution. The fake y values were set to have a linear relationship with the fake x-values.

C7. (2) From the RIntro_Graphing.pdf lab, submit the scatterplot with x.fake on the x-axis, y.fake on the y-axis, with the single triangular cyan point added and the legend (section 6.2).

Graph 6 Scatterplot with x.fake on x-axis, y.fake on y-axis, with single triangular cyan point added and the legend
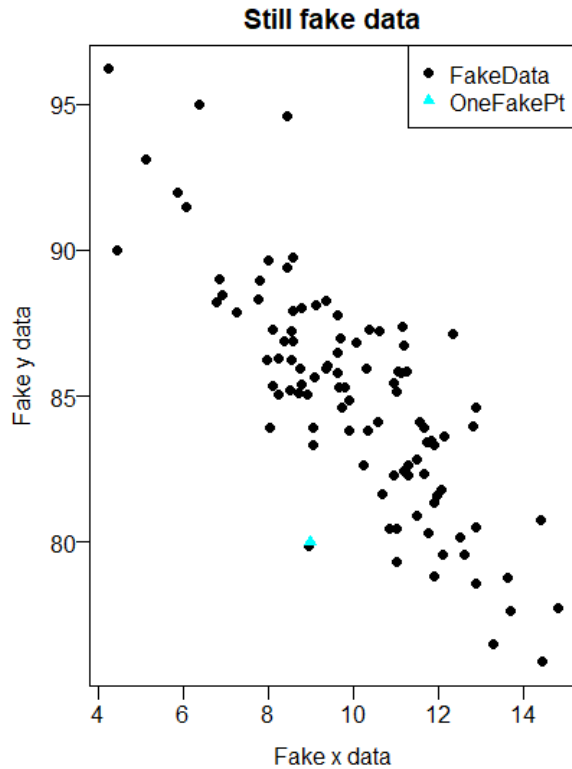
From the scatterplot, we see a slight negative relationship between the x.fake and y.fake data values on x- and y-axis respectively. There is also a single fake cyan point inserted in the plot.