**Homework #3 Grading Rubric**

**Each question is worth 25 points for a total of 75 points**

1. a) 10 points: 5 points for the clearly labeled scatterplot

2 points for providing the value of the correlation

3 points for interpreting the graph – form, direction and strength

b) 10 points: 5 points for the clearly labeled scatterplot with the one observation omitted

2 points for providing the value of the correlation

3 points for interpreting the graph – form, direction and strength

c) 5 points: 2 Compare the two scatterplots in one sentence

3 Discuss any other potential outliers

2. a) 12 points: 4 points for stating the four correlations and equations of the lines.

4 points for using the lines to make the prediction.

4 points for discussion of findings.

b) 8 points: Add the line of best fit to each of the four scatterplots

c) 5 points: Explain if you would use each regression line or not for each data set.

3. a) 20 points: 4 points: Scatterplot – clearly labeled

4 points: Line of best fit, r, and r-squared values - discuss

8 points: Assumption checks using residual plots

2 points: Identifying the outlier and influential points

2 points: Predicting SO2 for X=400

b) 5 points: Find the correlation between variables X1 and X2 and comment on the value you obtain

in the context of the question.