***Bivariate Data Analysis***

**What does it mean to “Analyze the data”?**

1. Create a scatterplot of the data; label each axis with a variable and units.

Fit a model to the data, and give the equation of the model. Plot the graph on the model on the scatterplot you drew.

2. Plot the residuals.

- Is there a clear pattern to the residuals?

Concave up or Concave down

Increasing or Decreasing

Too high or too low

- What is the magnitude of the residuals (how big are the residuals)?

\*3. Adjust model if necessary based on the analysis of the residuals.

If there is a clear pattern to the residuals, you must say that the model is inappropriate. First try to adjust the parameters of the model so that there is no pattern to the residuals. If that does not work, try a different model.

4. Comment on the appropriateness of the model.

State how appropriate the model is (very appropriate, appropriate, fairly appropriate, appropriate but not useful, inappropriate) based on the criteria above.