

Multiple Regression Models for Car Prices (continued)

Continue with the data you collected for modeling the **price** of a certain model of used car (in \$1,000's), based on the **age** (in years) and **miles** driven (coded in 1,000's).

Model #1: Use Age and Miles as predictors.

- a) Run the model with two predictors (**age** and **miles**) for **price** as the response variable and provide the output (both the *summary* and the *anova* for the model).
- b) Find the largest residual for a car in your sample.
- c) Assess the importance of each of the predictors in the model - be sure to indicate the specific value(s) from the output you are using to make the assessments. Include hypotheses and conclusions in context.
- d) Assess the overall effectiveness of this model (with a formal test). Again, be sure to include hypotheses and the specific value(s) you are using from the output to reach a conclusion.
- e) Compute and interpret the variance inflation factor (VIF) for your predictors.