Math 253

Multiple Regression

Search craigslist for a popular car make, model and sub-model (e.g. Honda Civic LX) with a clear title (not salvage) and similar or same condition (e.g. Excellent). Randomly sample 20 vehicles from those listed (you may want to refine your search to a particular type of seller). Record the asking price, the mileage, and the age for each vehicle.
Using a Google Doc or equivalent format, include your data, your formula and answer the questions below and send/share with me.

(a) Find a multiple linear regression (using an appropriate web app) model for these data.

(b) Use the model to predict the cost of a 6 year old model of the car with 72,000 miles and comment on the accuracy of the prediction.

(c) Interpret the depreciation rates of the model in context – including numbers and units (how does mileage affect price and how does age affect price).

(d) Give the intercept and interpret its meaning in this context. Do you think it is accurate? Explain.

(e) Can you tell which is a stronger predictor of price, age or mileage? Explain.