1. Use the cars data to fit a regression model that relates the type of drive train (front wheel drive, rear wheel drive, or four wheel drive) to miles per gallon on the highway (MPG highway).
   a. Please make a figure to summarize the relationship between MPG and drive train.
   b. What is the model? What are the unknown parameters, and what are their estimates?
   c. What the model’s estimate of the expected miles per gallon of a 4-wheel drive car?
   d. What percentage of the variation in MPG is explained by the drive train?
   e. How might you improve the model? (There are many answers to this question. Please try one way.)