Homework Assignment 1 Econ 205 Summer 2010

Chapter 1

2: The U.S. Department of Energy's Fuel Economy Guide provides fuel efficiency data for cars and trucks. Table 1.6 shows data for a sample of 10 cars.

a. How many elements are in this data set?

b. How many variables are in this data set?

c. Which variables are categorical and which are quantitative?

d. What type of measurement scale is used for each of the variables?

3: refer back to Table 1.6

a. What is the average fuel efficiency rating for city driving?

b. On average, how much higher is the fuel efficiency rating for highway driving as compared to city driving?

c. What percentage of the cars have four-cylinder engines?

d. What percentage of the cars will run on regular fuel?

25: Table 1.8 shows a data set containing information for 25 of the shadow stocks tracked by the American Association of Individual Investors. The data set is also on the website site that accompanies the text in the file named Shadow02.

a. How many variables are in the data set?

b. Which variables are categorical and which are quantitative?

c. For the Exchange variable, show the frequency and percent frequency for AMEX, NYSE, and OTC. Construct a bar graph similar to Figure 1.5 for Exchange variable.

d. Show the frequency distribution for the Gross Profit Margin using the five intervals: 0-14.9, 15-29.9, 30-44.9, 45-59.9, and 60-74.9. Construct a histogram similar to Figure 1.6

e. What is the average price/earnings ratio?

Chapter 2

25: Construct a stem and leaf display for this data.

29: Develop a cross tabulation for the data with x in the rows and y in the columns.

Compute row percentages.

Compute column percentages.

What is the relationship between x and y?

46: The daily high and low temperature for 20 cities follow:
a. Prepare a stem-and-leaf display of the high temperature.

b. Prepare a stem-and-leaf display of the low temperature.

c. Compare the two displays and make comments about the difference between the the high and low temperatures.

d. Provide a frequency distribution for both high and low temperatures.

47: Refer to the previous data set.

a. Develop a scatter diagram to show the relationship between the two variables, high temperature and low temperature.

b. Comment on the relationship between high and low temperature.