1. For textbook problem 4.27, the data are on the course web page as “winehrt.dat.”

   (a) Use SAS to produce the scatterplot for part (a).
   (b) Answer parts (b) and (c).
   (c) Use SAS to compute the correlation coefficient $r$ between alcohol from wine and heart disease death rate.
   (d) In the data, wine consumption is measured as yearly liters of alcohol from drinking wine, per person. If it had instead been measured in yearly ounces per person, how would the value of $r$ have been affected?

2. Investors ask about the relationship between returns on investments in the U.S. and on investments overseas. The data file “stocks.dat” gives the total returns on U.S. and overseas common stocks over a 26-year period. (The total return is change in price plus any dividends paid, converted into U.S. dollars. Both returns are averages over many individual stocks. Use SAS to get the numbers required for answering the following questions.

   (a) Make a scatterplot suitable for predicting overseas returns from U.S. returns. (Use SAS.)
   (b) Find the correlation coefficient $r$. Describe the relationship between U.S. and overseas returns in words, using $r$ to make your description more precise.
   (c) Find the 5-number summaries for both U.S. and overseas returns. Make boxplots to compare the two distributions. (These will not be side-by-side on one plot).
   (d) Were returns generally higher in the U.S. or overseas during this period? Explain your answer.
   (e) Were returns more volatile (that is, more variable) in the U.S. or overseas during this period? Explain your answer.