Assignment 2.4—part 2: p.70-72 #1,3,4,14,16,18

1. A bar chart and a Pareto chart both use bars to show frequencies of categories of categorical data. What characteristic distinguishes a Pareto chart from a bar chart, and how does that characteristic help us in understanding the data?

3. Listed below are SAT scores from a sample of students (based on data from www.talk.collegeconfidential.com). Why is it that a graph of these data will not be very effective in helping us understand the data?

2400 2200 2150 2040 2230 1890 2100 2090

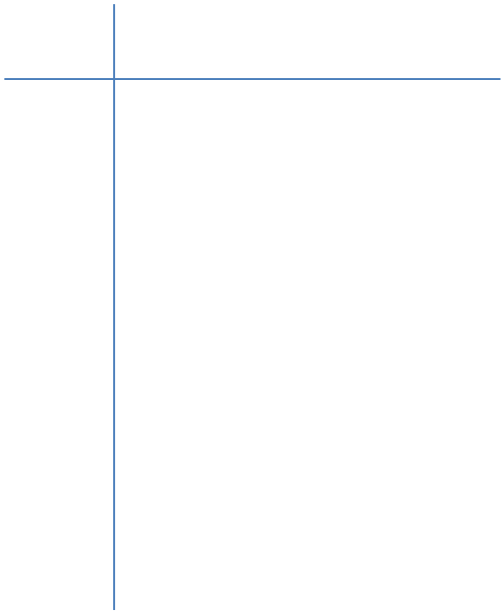
4. Given that the data from exercise 3 were obtained from students who made a decision to submit their SAT scores to a website, what type of sample would it be? If we had a much larger sample of that type, would a graph help us understand some characteristics of the population?

14. The following data set (from data set 14 in Appendix B) refers to braking distances in feet of 21 different cars

133 136 126 137 138 132 135 136 136 128 140

140 135 137 139 134 145 143 131 140 143

a. Construct the stemplot:

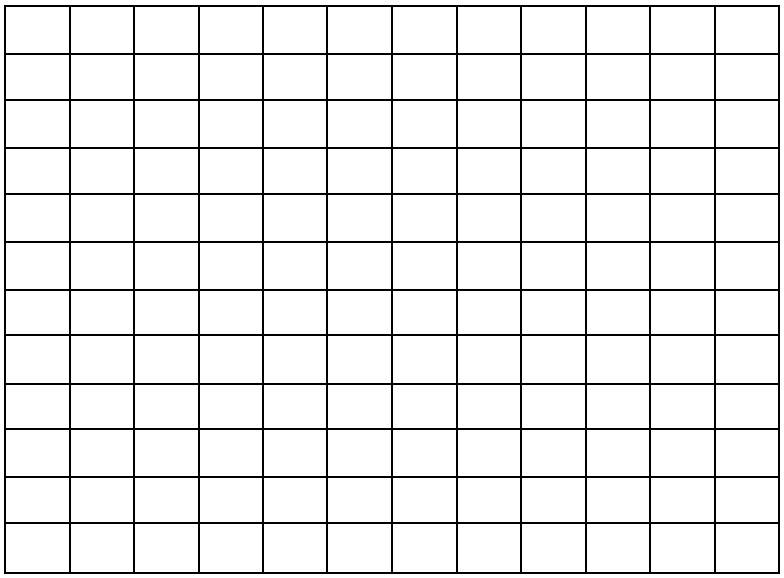


b. Are there any outliers?

c. Is there strong evidence suggesting that the data are not from a population having a normal distribution?

16. Here are weekly instruction times for school children in different countries: 23.8 hours (Japan), 26.9 hours (China), 22.2 hours (U.S.), 24.6 hours (U.K.), 24.8 hours (France).

a. Construct a Pareto chart of the data:



b. What do these results suggest about education in the United States?

18. a. Construct a pie chart of the same data:

b. Does it make sense to use a pie chart for this data?