

The second assignment demonstrates graphical and numerical methods of summarizing a single variable. Your first mastery exam consists of a single problem in which you will be given a data set and asked to make a number of graphs and calculations similar to those on this assignment. We will frequently use the tools introduced in this chapter during the rest of the semester. Exploratory data analysis should always precede more formal statistical analysis. The material in Chapter 2 tends to be mechanical and not deep conceptually, although interpretation questions are as important as calculation.

You may do the problems for this assignment by hand, with your calculator, or with R. I will place an introduction to R on the Web page soon. After each problem I will list the R functions you could use for the problem. For this assignment, you are not required to use R and can do all of the problems by hand. If you choose to try out R, you could use R to make graphs and then insert these graphs into a Word document. The method for doing this depends on the operating system you use. I encourage you to give it a try!

1. Problems 2.4 and 2.5 (page 30). Related R function: `hist`.
2. Problem 2.6 (page 30). Related R function: `stem`.
3. Problem 2.13 (page 36).
4. Problems 2.16 and 2.17 (page 37). Related R functions: `mean` and `median`.
5. Problem 2.22 (page 38).
6. Problem 2.24 (page 47). Related R functions: `quantile` and `boxplot`.
7. Problem 2.26 (page 47). Related R functions: `boxplot`, `data.frame`, `split`, and `list`.