6. Brain Volume and IQ Refer to Data Set 6 in Appendix B, and use the brain volumes (cm^3) and IQ scores. A simple hypothesis is that people with larger brains are more intelligent and thus have higher IQ scores. Does the scatterplot support that hypothesis?

7. Bear Chest Size and Weight Refer to Data Set 7 in Appendix B, and use the measured chest sizes and weights of bears. Does there appear to be a correlation between those two variables?

8. Coke Volume and Weight Refer to Data Set 19 in Appendix B, and use the volumes and weights of regular Coke. Does there appear to be a correlation between volume and weight? What else is notable about the arrangement of the points, and how can it be explained?

Time-Series Graphs. ***In Exercises 9 and 10, construct the time-series graph.***

9. Harry Potter Listed below are the gross amounts (in millions of dollars) earned from box office receipts for the movie *Harry Potter and the Half-Blood Prince*. The movie opened on a Wednesday, and the amounts are listed in order for the first 14 days of the movie's release. Suggest an explanation for the fact that the three highest amounts are the first, third, and fourth values listed.

58 22 27 29 21 10 10 8 7 9 11 9 4 4

10. Home Runs Listed below are the numbers of home runs in major league baseball for each year beginning with 1990 (listed in order by row). Is there a trend?

3317 3383 3038 4030 3306 4081 4962 4640 5064 5528

5693 5458 5059 5207 5451 5017 5386 4957 4878 4655

Dotplots. ***In Exercises 11 and 12, construct the dotplot.***

11. Coke Volumes Refer to Data Set 19 in Appendix B, and use the volumes of regular Coke. Does the configuration of the points appear to suggest that the volumes are from a population with a normal distribution? Why or why not? Are there any outliers?

12. Car Pollution Refer to Data Set 14 in Appendix B, and use the greenhouse gas (GHG) emissions from the sample of cars. Does the configuration of the points appear to suggest that the amounts are from a population with a normal distribution? Why or why not?

Stemplots. ***In Exercises 13 and 14, construct the stemplot.***

13. Car Crash Tests Refer to Data Set 13 in Appendix B and use the 21 pelvis (PLVS) deceleration measurements from the car crash tests. Is there strong evidence suggesting that the data are *not* from a population having a normal distribution?

14. Car Braking Distances Refer to Data Set 14 in Appendix B and use the 21 braking distances (ft). Are there any outliers? Is there strong evidence suggesting that the data are *not* from a population having a normal distribution?

Pareto Charts. ***In Exercises 15 and 16, construct the Pareto chart.***

15. Awful Sounds In a survey, 1004 adults were asked to identify the most frustrating sound that they hear in a day. In response 279 chose jackhammers, 388 chose car alarms, 128 chose barking dogs, and 209 chose crying babies (based on data from Kelton Research).

16. School Day 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). What do these results suggest about education in the United States?

Pie Charts. ***In Exercises 17 and 18, construct the pie chart.***

17. Awful Sounds Use the data from Exercise 15.

18. School Day Use the data from Exercise 16. Does it make sense to use a pie chart for the given data?