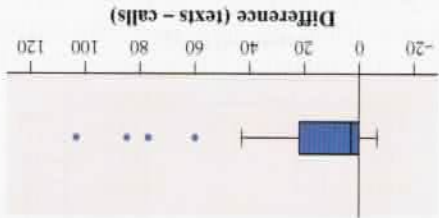
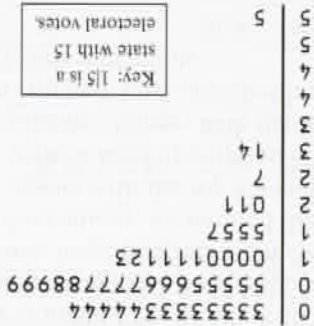


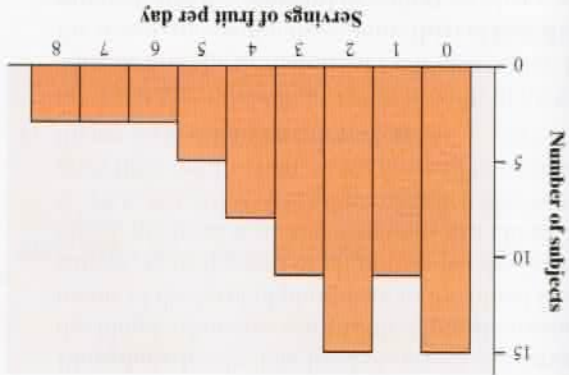
93. (a) Make a boxplot of the test score data by hand. Be sure to check for outliers.  
 (b) How did the students do on Mrs. Liao's first test? Justify your answer.  
 (c) Texts or calls? Refer to Exercise 91. A boxplot of the difference (texts - calls) in the number of texts and calls for each student is shown below.



94. (a) Do these data support the claim in the article about texting versus calling? Justify your answer with appropriate evidence.  
 (b) Can we draw any conclusion about the preferences of all students in the school based on the data from Mr. Williams's statistics class? Why or why not?  
 (c) Electoral votes. To become president of the United States, a candidate does not have to receive a majority of the popular vote. The candidate does have to win a majority of the 538 electoral votes that are cast in the Electoral College. Here is a stemplot of the number of electoral votes for each of the 50 states and the District of Columbia.



95. (a) Make a boxplot of these data by hand. Be sure to check for outliers.  
 (b) Which measure of center and spread would you use to summarize the distribution—the mean and standard deviation or the median and IQR? Justify your answer.  
 (c) Comparing investments. Should you put your money into a fund that buys stocks or a fund that invests in real estate? The boxplots compare the daily returns (in percent) on a "total stock market" fund and a real estate fund over a year ending in November 2007.<sup>43</sup>



96. (a) With a little care, you can find the median and the quartiles from the histogram. What are these numbers? How did you find them?  
 (b) Estimate the mean of the distribution. Explain your method clearly.

97. Quiz grades. Refer to Exercise 79.  
 (a) Find and interpret the interquartile range (IQR).  
 (b) Determine whether there are any outliers. Show your work.  
 98. Cowboys. Refer to Exercise 80.  
 (a) Find and interpret the interquartile range (IQR).  
 (b) Determine whether there are any outliers. Show your work.

99. Don't call me. In a September 28, 2008, article titled "Letting Our Fingers Do the Talking," the *New York Times* reported that Americans now send more text messages than they make phone calls. According to a study by Nielsen Mobile, "Teenagers ages 13 to 17 are by far the most prolific texters, sending or receiving 1,742 messages a month." Mr. Williams, a high school statistics teacher, was skeptical about the claims in the article. So he collected data from his first-period statistics class on the number of text messages and calls they had sent or received in the past 24 hours. Here are the texting data:

0	7	1	29	25	8	5	1	25	98	9	0	26
8	118	72	0	92	52	14	3	3	44	5	42	

92. Acing the first test. Here are the scores of Mrs. Liao's students on their first statistics test:  
 93 93 87.5 91 94.5 72 96 95 93.5 93.5 73  
 82 45 88 80 86 85.5 87.5 81 78 86 89  
 92 91 98 85 82.5 88 94.5 43
- (a) Make a boxplot of these data by hand. Be sure to check for outliers.  
 (b) Do these data support the claim in the article about the number of texts sent by teens? Justify your answer with appropriate evidence.

92. Acing the first test. Here are the scores of Mrs. Liao's students on their first statistics test: