## 11.1-11.3

## Quiz

Find the mean, median, and mode of the data set. Which measure of center best represents the data? Explain. (Section 11.1)
1.

| Hours Spent on Project |  |  |
| :---: | :---: | :---: |
| $3 \frac{1}{2}$ | 5 | $2 \frac{1}{2}$ |
| 3 | $3 \frac{1}{2}$ | $\frac{1}{2}$ |

2. 

| Waterfall Height (feet) |  |  |
| :--- | :--- | :--- |
| 1000 | 1267 | 1328 |
| 1200 | 1180 | 1000 |
| 2568 | 1191 | 1100 |

Find the range and standard deviation of each data set. Then compare your results. (Section 11.1)
3. Absent students during a week of school

Female: 6, 2, 4, 3, 4
Male: 5, 3, 6, 6, 9
4. Numbers of points scored

Juniors: 19, 15, 20, 10, 14, 21, 18, 15
Seniors: $22,19,29,32,15,26,30,19$

Make a box-and-whisker plot that represents the data. (Section 11.2)
5. Ages of family members:
$60,15,25,20,55,70,40,30$
6. Minutes of violin practice:
$20,50,60,40,40,30,60,40,50,20,20,35$
7. Display the data in a histogram. Describe the shape of the distribution. (Section 11.3)

| Quiz score | $0-2$ | $3-5$ | $6-8$ | $9-11$ | $12-14$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Frequency | 1 | 3 | 6 | 16 | 4 |

8. The table shows the prices of eight mountain bikes in a sporting goods store.
(Section 11.1 and Section 11.2)

| Price (dollars) | 98 | 119 | 95 | 211 | 130 | 98 | 100 | 125 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

a. Find the mean, median, mode, range, and standard deviation of the prices.
b. Identify the outlier. How does the outlier affect the mean, median, and mode?
c. Make a box-and-whisker plot that represents the data. Find and interpret the interquartile range of the data. Identify the shape of the distribution.
d. Find the mean, median, mode, range, and standard deviation of the prices when the store offers a $5 \%$ discount on all mountain bikes.

9. The table shows the times of 20 presentations. (Section 11.3)
a. Display the data in a histogram using five intervals beginning with 3-5.
b. Which measures of center and variation best represent the data? Explain.
c. The presentations are supposed to be 10 minutes long. How would you interpret these results?

| Time (minutes) |  |  |  |
| :---: | :---: | :---: | :---: |
| 9 | 7 | 10 | 12 |
| 10 | 11 | 8 | 10 |
| 10 | 17 | 11 | 5 |
| 9 | 10 | 4 | 12 |
| 6 | 14 | 8 | 10 |

