$\qquad$ Date $\qquad$ Class $\qquad$

## Practice B

## 11-5. Measures of Central Tendency and Variation

Find the mean, median, and mode of each data set.

1. $\{12,11,17,3,9,14,16,2\}$
a. Mean $\qquad$
b. Median $\qquad$
c. Mode $\qquad$
2. $\{6,9,9,20,4,5,9,13,10,1\}$
a. Mean $\qquad$
b. Median $\qquad$
c. Mode $\qquad$

Make a box-and-whisker plot of the data. Find the interquartile range.
3. $\{3,7,7,3,10,1,6,6\}$
$\qquad$

4. $\{1,2,3,5,3,5,8,2\}$

Find the variance and standard deviation.

5. $\{7,4,3,9,2\}$
6. $\{35,67,21,16,24,51,18,32\}$
7. $\{19,23,17,20,25,19,15,22\}$
8. $\{5,12,10,13,8,11,15,12\}$

## Solve.

9. The probability distribution for the amount of rain
that falls on Boston in May each year is given below.
Find the expected amount of rain for Boston in May.

| Inches of Rain, $\boldsymbol{n}$ | 5 | 6 | 7 | 8 |
| :--- | :---: | :---: | :---: | :---: |
| Probability | 0.05 | 0.10 | 0.64 | 0.21 |

10. A biologist is growing bacteria in the lab. For a certain species of bacteria, she records these doubling times: $41 \mathrm{~min}, 45 \mathrm{~min}, 39 \mathrm{~min}, 42 \mathrm{~min}, 38 \mathrm{~min}$, $88 \mathrm{~min}, 43 \mathrm{~min}, 40 \mathrm{~min}, 44 \mathrm{~min}, 39 \mathrm{~min}, 42 \mathrm{~min}$, and 40 min .
a. Find the mean of the data.
b. Find the standard deviation.
c. Identify any outliers.
d. Describe how any outlier affects the mean and the standard deviation.
