



# 11-3 Additional Practice

## Data Distributions

1. Determine the mean, standard deviation, and five-number summary for each data set. Round to the nearest tenth if necessary.

- a. 98, 87, 79, 82, 101, 99, 97, 97, 102, 91, 93

mean: \_\_\_\_\_ standard deviation: \_\_\_\_\_

five-number summary: minimum: \_\_\_\_\_ 1<sup>st</sup> quartile: \_\_\_\_\_

median: \_\_\_\_\_ 3<sup>rd</sup> quartile: \_\_\_\_\_ maximum: \_\_\_\_\_

- b. 3.2, 3.1, 4.5, 5.0, 4.1, 2.9, 1.8, 0.8, 2.2, 2.3, 3.1, 3.0

mean: \_\_\_\_\_ standard deviation: \_\_\_\_\_

five-number summary: minimum: \_\_\_\_\_ 1<sup>st</sup> quartile: \_\_\_\_\_

median: \_\_\_\_\_ 3<sup>rd</sup> quartile: \_\_\_\_\_ maximum: \_\_\_\_\_

2. Describe the shape of the distribution and determine which measures of center and spread best represent the data.

1,022	1,065	1,287	1,385	1,499	1,499	1,298
1,109	1,067	1,384	1,499	1,032	1,222	1,045

3. Every other week, a horticulturist sprays fertilizer on the roses in one section of a garden. Do you expect the height of the roses in the garden to be uniformly distributed, normally distributed, skewed left, or skewed right? Explain.

4. Describe the shape of the distribution of a set of data where the median and mean are the same. How would the median and mean compare if the data were skewed left?

5. The ages of students in a gymnastics class are 12, 15, 17, 9, 7, 8, 15, 10, 13, 6, 5, 7, 13, 10, 7, 9, 5, 6, 7, 7, and 4.

- a. Determine the mean, median, and standard deviation of the ages of the students. Round to the nearest hundredth.

mean: \_\_\_\_\_ median: \_\_\_\_\_ standard deviation: \_\_\_\_\_

- b. Describe the shape of the distribution of ages: