Lesson 12 Practice Problems

1. The shoe size for all the pairs of shoes in a person's closet are recorded.

| 7	7	7	7	7	7	7	7

7	7

a. What is the mean?

b. What is the standard deviation?

2. Here is a data set:

1	2	3	3	4	4	4	4

5	5	6	7

a. What happens to the mean and standard deviation of the data set when the 7 is changed to a 70?

b. For the data set with the value of 70, why would the median be a better choice for the measure of center than the mean?

3. Which of these best estimates the standard deviation of points in a card game?

points in a card game
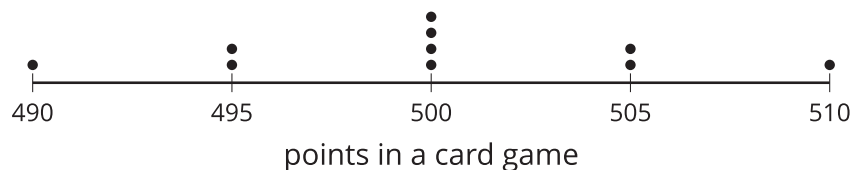
A. 5 points

B. 20 points

C. 50 points

D. 500 points

4. The mean of data set A is 43.5 and the MAD is 3.7. The mean of data set B is 12.8 and the MAD is 4.1.

    a. Which data set shows greater variability? Explain your reasoning.

    b. What differences would you expect to see when comparing the dot plots of the two data sets?

(From Unit 1, Lesson 11.)

5. Select **all** the distribution shapes for which the mean and median *must be* about the same.
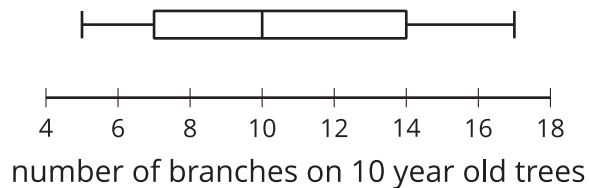
    A. bell-shaped

    B. bimodal

    C. skewed

    D. symmetric

    E. uniform

(From Unit 1, Lesson 10.)

6. What is the IQR?

number of branches on 10 year old trees

A. 5 branches

B. 7 branches

C. 10 branches

D. 12 branches

(From Unit 1, Lesson 11.)

7. The data represent the number of cans collected by different classes for a service project.

12	14	22	14	18	23	42	13
9	19	22	14				

a. Find the mean.

b. Find the median.

c. Eliminate the greatest value, 42, from the data set. Explain how the measures of center change.

(From Unit 1, Lesson 9.)