Lesson 5 Skills Practice

Measures of Variation

For Exercises 1–4, find the mean absolute deviation of each set of data. Round to the nearest tenth if necessary. Describe what the mean absolute deviation represents.

1.

Basketball Scores				
41	37	50	38	46
54	42	56	49	47

5.2; Sample answer: The average distance each data value is from the mean is 5.2 points.

2.

Books Read				
15	12	10	24	32
18	23	19	30	27

6.2; Sample answer: The average distance each data value is from the mean is 6.2 books.

3.

Miles Traveled		
110	85	90
115	115	80
125	85	95

14.4; Sample answer: The average distance each data value is from the mean is 14.4 miles.

4.

Bagels Sold			
65	74	91	99
104	93	62	92
75	119	116	54

17.5; Sample answer: The average distance each data value is from the mean is 17.5 bagels.

5. Refer to the table in Exercise 1. The standard deviation is about 6.5 points. Describe the data values that are within one standard deviation of the mean.

Basketball scores between 39.5 and 52.5 points are within one standard deviation of the mean.

6. Refer to the table in Exercise 2. The standard deviation is about 7.5 books. Describe the data values that are within one standard deviation of the mean.

Data values between 13.5 and 28.5 books are within one standard deviation of the mean.