7.1 Practice B

In Exercises 1 and 2, (a) find the mean, median, and mode of the data set and (b) determine which measure of center best represents the data. Explain.

1. 5, 9, 4, 2, 5, 6, 7, 5, 9, 1, 9, 4

2. 24, 18, 4, 20, 22, 26, 22, 24

3. The table shows the weights of hams (in pounds).

Ham weight (pounds)	9.35	6.72	10.12	9.51	8.89	7.5	10.8	7.1	9.45

a. Find the mean, median, and mode of the lengths.

b. Which measure of center best represents the data? Explain.

c. A tenth ham is added, which weighs 6.5 pounds. How does this additional value affect the mean, median, and mode? Explain.

In Exercises 4 and 5, find the value of *x*.

4. −11.5, 12, −14.5, *x*; The mean is 0.5.

5. 42, 55, *x*, 80; The median is 66.

6. The table shows the lengths of hospital stays (in days) of patients due to gastrointestinal blockage.

Length of stay (days)	3	2	2	3	4	20	3	2	4

a. Identify the outlier. How does the outlier affect the mean, median, and mode?

b. Describe one possible explanation for the outlier.

In Exercises 7 and 8, find (a) the range and (b) the standard deviation of the data set.

7. 74, 52, 65, 64, 58

8. 11.0, 8.8, 9.2, 10.4, 11.5, 12.7

9. Find the values of the measures shown when each value in the data set is multiplied by 3.

Mean: 180   Median: 175   Mode: 150

Range: 80   Standard deviation: 24.5