Name_____ Date_____

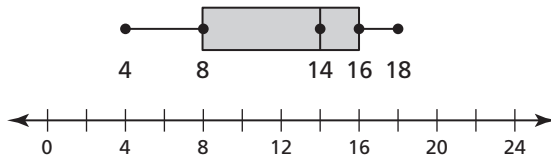**Find the mean, median, and mode of the data set. Which measure of center best represents the data?**

Answers

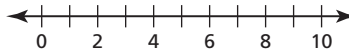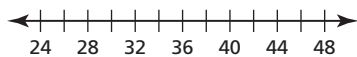**1.** 1, 8, 7, 3, 6, 7, 5, 10, 5, 4   **2.** 12, 20, 13, 10, 12, 12, 14, 15, 18, 19

Use the box-and-whisker plot to find the given measure.

3. least value   **4.** first quartile   **5.** median

6. range   **7.** greatest value   **8.** third quartile

Make a box-and whisker plot that represents the data.

9. 30, 36, 40, 28, 32, 48, 42   **10.** 10, 9, 7, 8, 3, 7, 9, 2, 8, 7, 9

11. The table shows the test scores for eight honors geometry students on an exam.

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

b. Describe one potential explanation for the outlier.

Test Scores			
45	78	83	85
84	90	80	86

Find the range and standard deviation of each data set. Then compare your results.

12. Highest test scores by class
Period 2: 92, 95, 87, 90, 92, 93, 88
Period 4: 100, 88, 83, 89, 92, 91, 85

13. Heights of 18-year old adults (in.)
Male: 70, 67, 72, 65, 69, 71, 73
Female: 64, 62, 65, 63, 67, 61, 70

Tell whether the data are *qualitative* or *quantitative*.

14. brands of athletic clothing   **15.** nations competing in the Olympics

16. monthly snowfall in inches   **17.** average temperatures in a city

Answers

1. _____

   _____

2. _____

   _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____See left._____

10. ____See left.____

11. a._____
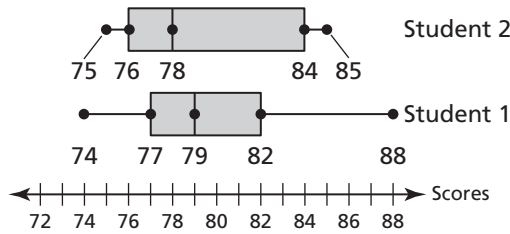
   b._____

12. _____

   _____

   _____

   _____

13. _____

   _____

   _____

14. _____

15. _____

16. _____

17. _____

Chapter 7 **Test B** (continued)

Find the value of *x*.

Answers

18. 2, 4, 7, 0, 2, 3, *x*; The mean is 3.

19. 17, 15, 16, 18, *x*; The mean is 17.

18. _____

19. _____

20. The double box-and-whisker plot represents the quiz scores of two students over the course of the year in their algebra class.

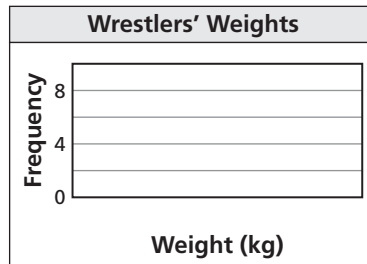**a.** Identify the shape of each distribution.

Student 2

75 76 78   84 85

b. Which student was more consistent on his or her quiz scores? Explain.

Student 1

74   77 79   82   88

72   74   76   78   80   82   84   86   88 → Scores

c. Which student has the single best quiz score?

20. a. _____

b. _____

c. _____

21. a. ___See left.___

b. _____

22. a. ___See left.___

b. _____

21. The table shows the weight of several sumo wrestlers in kilograms.

Wrestlers' Weights (kg)									
175	150	134	180	143	127	159	157	151	203
143	134	135	150	132	169	129	135	139	153

a. Display the data in a histogram using five intervals beginning with 127–142.

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

Wrestlers' Weights

Frequency

8

4

0

Weight (kg)

22. You conduct a survey that asks 350 students in your class about whether they plan to go to prom this year. A total of 171 males respond, 100 of which said yes they plan to go. A total of 90 females said they are not planning to attend.

a. Organize the results in the two-way table provided.

b. If no student changes his or her mind between now and the prom, what percent of the prom attendees will be female?

	Male	Female	Total
Yes			
No			
Total			