

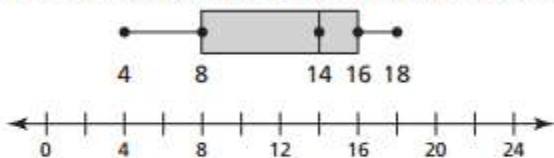
Algebra Chapter 11 Review

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

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

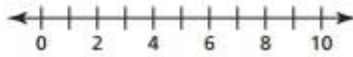
7. greatest value

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. Height 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

Find the value of x .

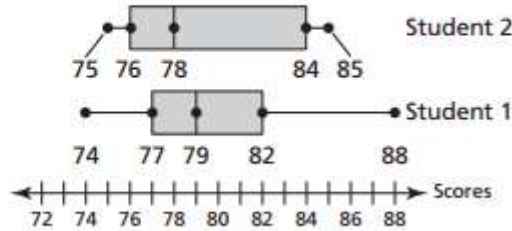
18. 2, 4, 7, 0, 2, 3, x ; The mean is 3. 19. 17, 15, 16, 18, x ; The mean is 17.

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.

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

c. Which student has the single best quiz score?

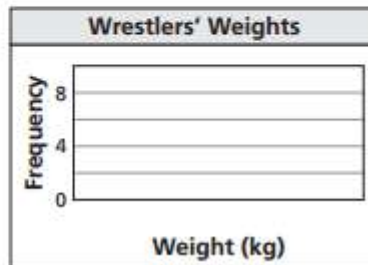


21. The table shows the weight of several sumo wrestlers in kilograms.

Wrestler's Weight (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.



22. You conduct a survey that asks 350 students in your class about whether they plan to go to prom this year. One hundred seventy-one males respond, 100 of which said yes they plan to go. Ninety 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			

Additionally, be prepared to choose an appropriate data display (and explain your reasoning) given a situation.

Ch 11 Review Answers

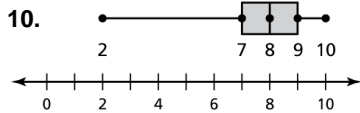
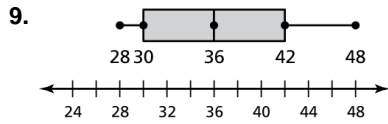
1. a. mean: 5.6; median: 5.5; mode: 5 and 7 both appear twice.

b. mean

2. a. mean: 14.5; median: 13.5; mode: 12

b. median

3. 4 4. 8 5. 14 6. 14 7. 18 8. 16



11. a. 45; The outlier pulls the mean to the left, making it smaller. The median also increases, but the mode is not affected.

b. *Sample answer:* That student did not study for the test. The measures of spread for the science data are larger than the measures of spread for the math data.

12. Period 2: range = 8, standard deviation = 2.6;

Period 4: range = 17, standard deviation = 5.1; The measures of spread for Period 2 are smaller than the measures of spread for Period 4.

13. male: range = 8, standard deviation = 2.6;

female: range = 9, standard deviation = 2.9;

The measures of spread for female and male heights are similar.

14. qualitative

15. qualitative

16. quantitative

17. quantitative

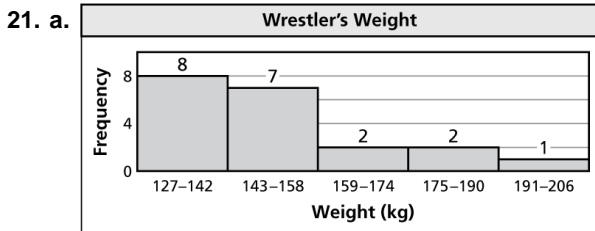
18. $x = 3$

19. $x = 19$

20. a. Student 1: slight skew right; Student 2: skew right

b. Student 2; smaller range

c. Student 1



b. median; The data is skewed right.

22. a.

	Male	Female	Total
Yes	100	89	189
No	71	90	161
Total	171	179	350

b. 47.1%