Name_____ Date_____

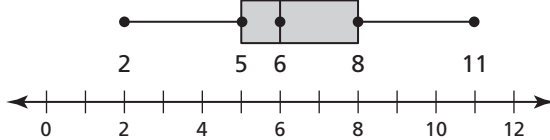**Find the mean, median, and mode of the data set. Which measure of center best represents the data?**

1. 2, 3, 3, 3, 6, 7, 5, 4, 5, 2
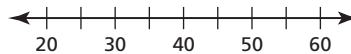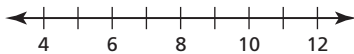
2. 10, 11, 15, 12, 11, 13, 13, 10, 9, 11

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. 11, 8, 4, 8, 5, 7, 9, 10, 8, 9, 8

10. 24, 33, 56, 42, 35, 45, 33

11. The table shows the hourly wages of eight high school seniors in Massachusetts.

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

Students' Hourly Wages			
$8.10	$9.00	$8.50	$10.00
$9.50	$8.25	$9.15	$17.00

 b. Describe one potential explanation forthe outlier.

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

12. Students' test scores
  Science: 86, 85, 90, 75, 56, 80
  Math: 75, 73, 93, 84, 93, 70

13. Males' heights in inches
  Freshmen: 64, 62, 56, 63, 72
  Seniors: 72, 68, 67, 60, 70

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

14. price of women's shoes

15. brands of sneakers at a store

16. cost of monthly electric bill

17. breeds of dogs at a competition

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 A** (continued)

Find the value of *x*.

                                                            Answers

18. 8.5, 9, 7.5, 6, 7, *x*; The mean is 8.   **19.** 1, 3, 3, 5, 2, 4, *x*; The mean is 3.

20. The double box-and-whisker plot represents the monthly profit for one year for two companies.

    a. Identify the shape of each distribution.

    b. Which company's profit is more consistent on a monthly basis? Explain.

    c. Which company has the single best month during the year?

Company B   4 5 6 7   11

Company A   4 5   7 8 9

Profit (millions of dollars)

0 1 2 3 4 5 6 7 8 9 10 11 12
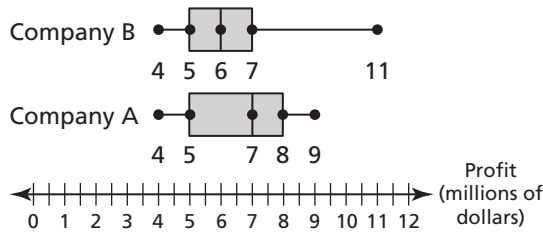
21. The table shows the heights (in inches) of the 2012 NBA All-Star Game players.

Players' Heights (inches)											
70	74	83	85	70	75	76	83	83	81	86	78
79	75	82	75	79	73	75	81	82	78	72	84

    a. Display the data in a histogram using five intervals beginning with 69–72.

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

Players' Heights

Frequency: 8, 4, 0

Height (inches)
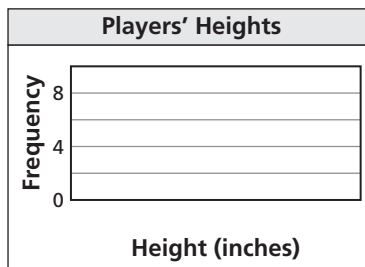
Choose an appropriate data display for the situation. Explain your reasoning.

22. price of a home over 10 years   **23.** different types of pets in 100 homes

24. You conduct a survey that asks 350 students in your class about whether they prefer pizza or chicken for school lunch. A total of 189 males respond, 95 of which prefer pizza. A total of 52 females prefer the chicken.

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

    b. What percent of females prefer the pizza?

	Male	Female	Total
Pizza			
Chicken			
Total			

Answers

18. _____

19. _____

20. a. _____

    b. _____

    c. _____

21. a. _____See left._____

    b. _____

22. _____

    _____

23. _____

    _____

24. a. _____See left._____

    b. _____