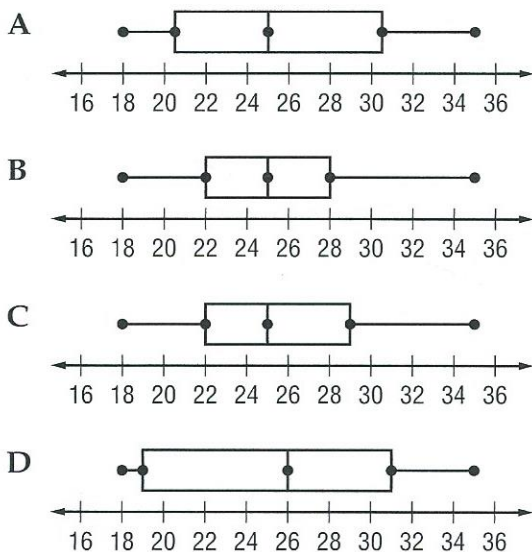


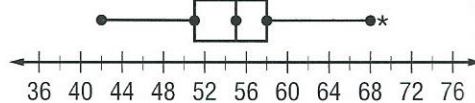
26. **REASONING** The lower quartile, median, and upper quartile of a data set are x , y , and 70, respectively. If a box-and-whisker plot were to be made from this data, give possible values for x and y according to each of the following conditions.
- The median separates the box into two equal parts.
 - The box between the median and the upper quartile is twice as long as the box between the median and the lower quartile.
27. **WRITING IN MATH** Explain the advantage of using a box-and-whisker plot to display data.

TEST PRACTICE

28. Which box-and-whisker plot represents the data set 18, 22, 31, 25, 30, 19, 26, 24, and 35?



29. Which of the following statements is not true concerning the box-and-whisker plot below?



- F The value 69 is an outlier.
- G Half of the data is above 55.
- H $\frac{1}{4}$ of the data is in the interval 58–69.
- J There are more data values in the interval 42–51 than there are in the interval 55–58.

Spiral Review

Find the range, median, upper and lower quartiles, interquartile range, and any outliers for each set of data. (Lesson 9-5)

30. 73, 52, 31, 54, 46, 28, 47, 49, 58
31. 87, 63, 84, 94, 89, 74, 50, 85, 91, 78, 99, 81, 77, 86, 65, 81, 74
32. **LIFE SCIENCE** Find the mean, median, mode, and range of the plant heights 22, 4, 1, 12, 5, 22, 5, 25, 25, 19, 23, 24, 11, 16, 3, and 22 inches. Round to the nearest tenth if necessary. (Lesson 9-4)

GET READY for the Next Lesson

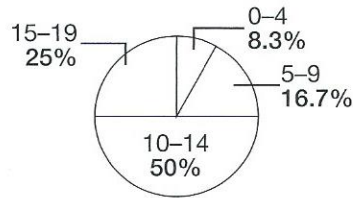
PREREQUISITE SKILL Make a line plot for each set of data. (Page 676)

33. 2, 5, 9, 8, 2, 6, 2, 5, 8, 10
34. 14, 12, 9, 7, 12, 10, 14, 7, 8, 12

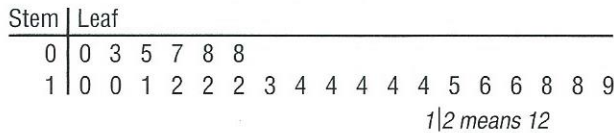
TEST PRACTICE

25. Roger polled 24 classmates to find out the average number of hours each spends online each week. Which of the following displays would be most appropriate to show the individual student responses?

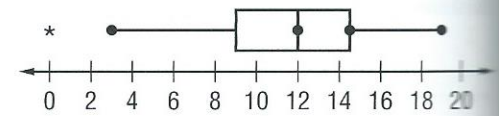
A Number of Hours Spent Online Each Week



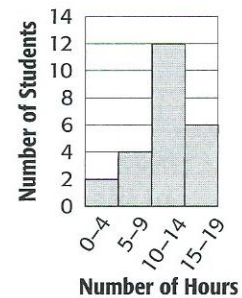
B Number of Hours Spent Online Each Week



C Number of Hours Spent Online Each Week



D Number of Hours Spent Online Each Week



Spiral Review

Draw a box-and-whisker plot for each set of data. (Lesson 9-6)

26. 42, 38, 42, 45, 43, 80, 55, 50, 34, 36, 40, 35 27. 52, 58, 67, 63, 47, 44, 52, 15, 49, 65, 52, 59

POPULATION For Exercises 28–31, use the table at the right.

(Lesson 9-5)

- Determine the measures of variation for the data.
- Find any outliers of the data.
- Use the measures of variation to describe the data.
- MONEY** Find the simple interest if \$500 is invested at 4.5% for 30 years. (Lesson 5-9)

Ancestral Origins of America (millions)	
German	42.8
Irish	30.5
African American	24.9
English	24.5
American	20.2
Mexican	18.4
Other	120.7

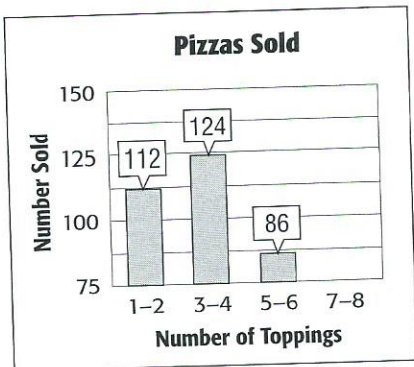
Source: U.S. Census Bureau

GET READY for the Next Lesson

PREREQUISITE SKILL Describe each sample as *biased* or *unbiased*. Explain. (Lesson 8-8)

- To determine how the neighborhood park should be improved, a survey is taken of every other house in the neighborhood.
- To determine who will be elected governor, a survey is taken of every other house in one neighborhood.

18. The graph shows the number of pizzas sold from a pizza shop this past weekend.



According to the information in the graph, no pizzas with 7–8 toppings were sold. Which statement explains why this representation may be inaccurate?

- A The vertical bars are too narrow.
- B The intervals are too small.
- C The scale for the number of pizzas sold does not start at 0.
- D The scale for the number of pizzas sold goes higher than 125.

19. The table gives the number of states for each speed limit. Which of the following measures of central tendency or range would a police officer use to show that the speed limits are too high?

Rural Interstate Speed	Number of States
60	1
65	20
70	16
75	13

Source: World Almanac, 2005

- F mean
- G median
- H mode
- J range

Spiral Review

20. **RADIO LISTENING** Choose an appropriate display for the data at the right. Then make a display. Justify your reasoning. (Lesson 9-7)

Age	18 to 24	25 to 34	35 to 44	45 to 54	55 or older
Percent of Audience	10%	14%	29%	33%	14%

Source: Interep Research Division

Draw a box-and-whisker plot for each set of data. (Lesson 9-6)

21. 55, 63, 72, 52, 55, 68, 64, 61, 58

22. 53, 49, 43, 5, 28, 38, 34, 45, 51, 45

Cross-Curricular Project

Math and Science

It's all in the Genes It's time to complete your project. Use the information and data you have gathered about genetics and the traits of your classmates to prepare a Web page or poster. Be sure to include a chart displaying your data with your project.

Math online Cross-Curricular Project at tx.msmath3.com