

NAME _____

DATE _____

Module Test **A**

Module 19

Fill in the blanks with the term that best completes each statement.

- The mean of a set of values is also called the _____.
- A _____ graph is often called a pie chart.
- In a box-and-whiskers plot, the middle 50% of the data is indicated by the _____.
- The medians of each half of the data in a set are the _____.
- If the data in a set is close together, the deviation will be _____.

Determine whether the following statements true or false:

- It is possible to have no mode for a given data set. _____
- It is possible to have no median for a given data set. _____
- It is possible to have two means for a given data set. _____
- The mean will be affected by an outlier. _____
- The mean and median of a set will always be the same value. _____
- Deviation from the mean may be positive or negative. _____
- The sum of the deviations from the mean is always zero. _____
- The horizontal axis represents periods of time for a line graph. _____
- The whiskers of a box-and-whisker plot are always the same length. _____
- The dependent variable in a scatter plot is graphed on the horizontal axis. _____

Choose the correct response to complete each of the following:

- The value that occurs most often in a data set is the
 a. mean b. median c. mode d. range
- The median for a data set containing an even number of values is found by
 a. no median in this case c. removing an outlier and choosing the new middle value
 b. having two medians—two middle values d. averaging two middle values

18. When creating a stem-and-leaf plot, the part represented by the stem is
 a. the first digit b. the last digit c. all except the first digit d. all except the last digit
19. The best graph to compare data amounts is a
 a. line graph b. bar graph c. circle graph d. scatter plot
20. The best graph to show the relationship between two sets of data is a
 a. line graph b. bar graph c. circle graph d. scatter plot
21. A negative slope between points on a line graph indicates
 a. an increase b. a decrease c. no change d. a sharp change
22. In a circle graph, the sector with a center angle of 90° represents
 a. one-quarter of the circle b. half of the circle c. three-quarters of the circle d. the entire circle
23. The amount of data within the interquartile range is
 a. 25% b. 50% c. 75% d. 100%
24. If the relationship between two sets of data is such that the dependent variable is decreasing as the independent variable is increasing, then the correlation
 a. is positive b. is negative c. does not exist; no correlation d. cannot be determined
25. A line of fit can *not* be used to
 a. demonstrate correlations b. describe trends of data c. compare parts to whole d. make predictions
26. The number of feet required to brake from 60 mi/h to a complete stop is given for large SUV's in the set: 134, 138, 141, 144, 150, 156, 158, 167. Find the
- | | |
|----------------------------------|-----------------------------------|
| a. mean _____ | b. median _____ |
| c. mode _____ | d. deviations from the mean _____ |
| e. mean absolute deviation _____ | f. minimum and maximum _____ |
| g. Q_1 _____ | h. Q_3 _____ |
| i. range _____ | j. interquartile range _____ |
| k. stem-and-leaf plot | l. box-and-whisker plot |

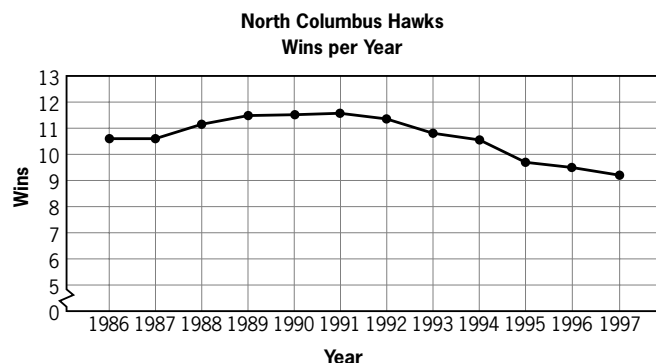
27. The average number of cases of lyme disease in Delaware, per 1,000 people, is given as follows for a 10-year period: 1992 was 47.9; 1993 was 49.1; 1994 was 51.2; 1995 was 46.1; 1996 was 41.6; 1997 was 38.8; 1998 was 36.0; 1999 was 32.1; 2000 was 27.4; and 2001 was 24.7.

a. Create a scatter plot.

b. What type of correlation does the graph represent? _____

c. Draw a line of fit. List two possible points of the scatter plot through which it crosses. _____
 it crosses. _____

28. The line graph shows the number of wins by the North Columbia Hawks from 1986 to 1997.



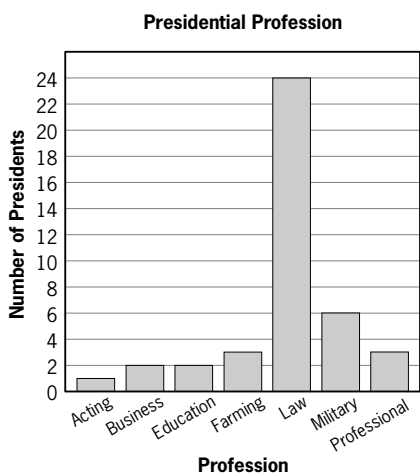
a. What trend is displayed on the graph? _____

b. In what year did they have the most wins? _____

c. During what two consecutive years was the number of wins the same?



29. The bar graph shows the occupational areas of the United States Presidents.



- a. In what profession were most of the United States Presidents? _____
- b. In what profession was the least number of United States Presidents?

- c. What profession(s) was(were) attributed to two United States Presidents?

Answer the following problems with complete sentences:

30. Define "central tendency" and list the three statistical measures studied in this lesson which measure it. _____

31. Explain the difference between range and interquartile range. _____