

NAME \_\_\_\_\_

DATE \_\_\_\_\_

# Module Test **B**

## Module 19

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

- The average of a set of values is also called the \_\_\_\_\_.
- A circle graph is often called a \_\_\_\_\_.
- In a box-and-whiskers plot, the lower 25% of the data and the upper 25% of the data are indicated by the \_\_\_\_\_.
- The quartiles are the \_\_\_\_\_ of each half of the data set.
- If the data in a set is spread out, the deviation will be \_\_\_\_\_.

**Determine whether the following statements true or false:**

- It is possible to have more than one mode for a data set. \_\_\_\_\_
- It is possible to have more than one median for a given data set. \_\_\_\_\_
- It is possible to have more than one mean for a given data set. \_\_\_\_\_
- The values in a data set must be in order to find the median. \_\_\_\_\_
- The median and mode of a set will always be the same value. \_\_\_\_\_
- Absolute deviation from the mean may be positive or negative. \_\_\_\_\_
- The sum of the absolute deviations from the mean is never negative. \_\_\_\_\_
- A line graph uses line segments between data points. \_\_\_\_\_
- In a box-and-whisker plot, the median cuts the box exactly in half. \_\_\_\_\_
- The independent variable in a scatter plot is graphed on the horizontal axis. \_\_\_\_\_

**Choose the correct response to complete each of the following:**

- The middle value of a data set, when arranged in order, is the  
 a. mean      b. median      c. mode      d. range
- When creating a stem-and-leaf plot, the part represented by the leaf is  
 a. the first digit    b. the last digit    c. all except the first digit    d. all except the last digit

18. The best graph to show trends in data is a  
 a. line graph    b. bar graph    c. circle graph    d. scatter plot
19. The best graph to compare parts to the whole is a  
 a. line graph    b. bar graph    c. circle graph    d. scatter plot
20. A positive slope between points on a line graph indicates  
 a. an increase    b. a decrease    c. no change    d. a sharp change
21. A horizontal line segment 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  $180^\circ$  represents  
 a. 25% of the data    b. 50% of the data    c. 75% of the data    d. 100% of the data
23. The amount of data within the 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 increasing 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 be used to  
 a. describe trends of data    b. make predictions    c. demonstrate correlations    d. all of the above
26. The number of seconds required to accelerate from 0 to 60 mph is given for large SUV's in the set {9.3, 9.3, 9.6, 9.7, 9.8, 10.1, 10.2, 10.7}. 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           |

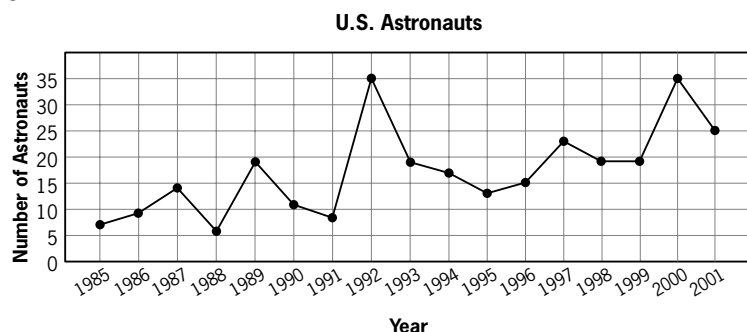
27. The purse, in thousands of dollars, to the winners of the Masters golf tournament for several years is given as follows: 1989 was \$200; 1990 was \$225; 1991 was \$243; 1992 was \$270; 1993 was \$306; 1994 was \$360; 1995 was \$396; 1996 was \$450; 1997 was \$486; 1998 was \$576; 1999 was \$720; 2000 was \$828; 2001 was \$1008; 2002 was \$1008; and 2003 was \$1080.

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. \_\_\_\_\_

28. The line graph shows the number of U.S. astronauts in the space program each year.



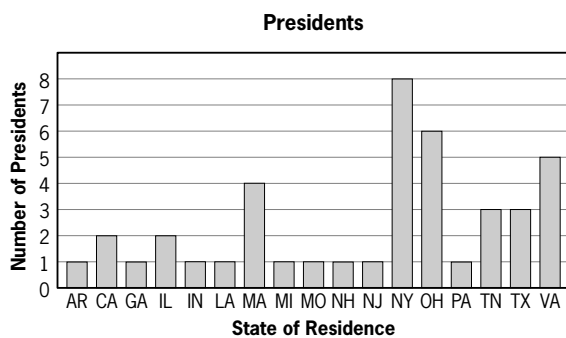
a. What trend is displayed on the graph? \_\_\_\_\_

b. In which two years were there the most U.S. astronauts in the space program? \_\_\_\_\_

c. Between what two years did the number of U.S. astronauts in the space program remain constant? \_\_\_\_\_



29. The bar graph shows the United States Presidents by the states from which they were elected.



a. From which state was the greatest number of United States Presidents?

\_\_\_\_\_

b. How many United States Presidents were from Texas? \_\_\_\_\_

c. From which state(s) has (have) two United States Presidents been elected?

\_\_\_\_\_

**Answer the following problems with complete sentences:**

30. Explain how the median is found for a set having an even number of values.  
Put the values in order.

\_\_\_\_\_  
\_\_\_\_\_

31. Name the parts of the five-number summary. Explain how the summary is used to create a box-and-whiskers plot. \_\_\_\_\_

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