

## QUIZ #1 Based on Chapters 1, 2, and 3

Answer on a Scantron form.

**Due at the beginning of class on Tuesday 02/02/2010**

1. The scale of measurement for a variable is called an *ordinal scale* if \_\_\_\_\_.
  - a. the data exhibit the properties of nominal data and the order or rank of the data is meaningful.
  - b. the data exhibit the properties of interval data and the order or rank of the data is meaningful.
  - c. the data exhibit the properties of nominal data and the order or rank of the data is not meaningful.
  - d. None of the above.
  
2. The data in which scale of measurement will always be numeric?
  - a. Nominal scale
  - b. Interval scale
  - c. Ratio scale
  - d. Both b and c are correct
  
3. \_\_\_\_\_ require numeric values that indicate how much or how many.
  - a. Quantitative data
  - b. Nominal data
  - c. Ordinal data
  - d. Qualitative data
  
4. \_\_\_\_\_ is the set of all elements of interest in a particular study.
  - a. Data set
  - b. Population
  - c. Sample
  - d. Observation
  
5. According to your textbook, what is an important source for finding existing data?
  - a. Special interest organizations
  - b. The Internet
  - c. Government agencies
  - d. All of the above

THE FOLLOWING PARAGRAPH IS TO ANSWER QUESTIONS 6,7 and 8

The *Wall Street Journal* (October 13, 2003) subscriber survey asked 46 questions about subscriber characteristics and interests. State whether questions 6-8 provide *qualitative or quantitative* data and indicate the *measurement scale* that is appropriate for each.

6. What is your age in years?
  - a. Quantitative; ratio
  - b. Qualitative; nominal
  - c. Quantitative; interval
  - d. Qualitative; ordinal
  
7. To indicate your gender, circle the appropriate number: Male= 1 Female= 2
  - a. Qualitative; ordinal

- b. Qualitative; nominal
  - c. Quantitative; nominal
  - d. Quantitative; interval
8. When did you first start reading *WSJ*? High school, college, early career, mid-career, late career, or retirement?
- a. Quantitative; ratio
  - b. Qualitative; nominal
  - c. Quantitative; interval
  - d. Qualitative; ordinal
9. What is the relative frequency of a class equal to?
- a. The proportion of items belonging to a class.
  - b. The fraction of items belonging to a class.
  - c. The percentage of items that do not belong to a class.
  - d. Both a and b are correct.
10. Which of the following equations will help determine the relative frequency of a class?
- a.  $(\text{Frequency of the class}) / (n-1)$
  - b.  $(\text{Frequency of the class}) / (n)$
  - c.  $(n) / (\text{Frequency of the class})$
  - d.  $(n-1) / (\text{Frequency of the class})$
11. \_\_\_\_\_ is the value halfway between the lower and upper class limits.
- a. Upper class limit
  - b. Class midpoint
  - c. Lower class limit
  - d. Average point
12. The total of the relative frequencies of all classes in a frequency distribution will always be equal to
- a. 1.00
  - b. 100
  - c. less than 1
  - d. greater than 1
13. Which of the following statements is *true*?
- a. Relative frequency distribution is a graphical method of showing data.
  - b. Both percent frequency distribution and cumulative percent frequency distribution are appropriate for qualitative data.
  - c. Cumulative distributions are appropriate for quantitative data only.
  - d. All of the above are true statements.
14. Which of the following is not a measure of location?
- a. Median
  - b. Range
  - c. Mode
  - d. Mean

15. Which of the following statements is *true*?
- The median is not a measure of location.
  - The median is the value in the middle when the data are arranged in ascending order.
  - For an even number of observations, the median is the middle value.
  - For an odd number of observations, the median is the average of the two middle values.
16. Which of the following statements is *not true*?
- The mode is the value that occurs with greatest frequency.
  - The mode is an important measure of location for qualitative data.
  - Mode is a measure of variability.
  - All of the above are true statements.
17. The second quartile, or 50<sup>th</sup> percentile, is also the \_\_\_\_\_.
- Mode of the data
  - Mean of the data
  - Median of the data
  - Variance of the data
18. Each quartile contains approximately \_\_\_\_\_ of the data.
- 50%
  - 25%
  - 100%
  - 10%
19. For any data set, the sum of the deviations about the mean will always be \_\_\_\_\_.
- equal to 1
  - between 0 and 1
  - less than 1
  - equal to 0
20. Which of the following measures of variability is the most popular?
- Range
  - Interquartile Range
  - Variance
  - Standard Deviation

THE FOLLOWING IS TO ANSWER QUESTION 21

A bowler's scores for six games were 182, 168, 184, 190, 170, and 174. Use these data as a sample.

21. Compute the standard deviation.
- 7.92
  - 5.72
  - 8.67
  - 6.99