

**Module 7 Quiz****Multiple Choice**

*Identify the choice that best completes the statement or answers the question.*

- \_\_\_\_\_ 1. During the past year, Zara and Ivan each read 2 books, but George read 9, Ali read 12, and Marsha read 25. The median number of books read by these individuals was
- 2.
  - 50.
  - 10.
  - 12.
  - 9.
- \_\_\_\_\_ 2. Six different high school students spent \$10, \$13, \$2, \$12, \$13, and \$4, respectively, on entertainment. The mode of this group's entertainment expenditures is
- \$9.
  - \$10.
  - \$11.
  - \$12.
  - \$13.
- \_\_\_\_\_ 3. The most commonly reported measure of central tendency is the
- mode.
  - mean.
  - normal distribution.
  - median.
  - standard deviation.
- \_\_\_\_\_ 4. During the past month, Henri and Sylvia each ate 10 candy bars, while Jerry ate 8, Tricia ate 6, and Tahli ate only 1. The mean number of candy bars eaten by these individuals was
- 3.
  - 5.
  - 7.
  - 8.
  - 10.
- \_\_\_\_\_ 5. When Mr. Adams calculated his students' algebra test scores, he noticed that two students had extremely low scores. Which measure of central tendency is affected most by the scores of these two students?
- mean
  - standard deviation
  - mode
  - median
  - range

- \_\_\_\_\_ 6. Seven members of a boys' club reported the following individual earnings from their sale of cookies: \$2, \$9, \$8, \$10, \$4, \$9, and \$7. In this distribution of individual earnings
- the median is greater than the mean and greater than the mode.
  - the median is less than the mean and less than the mode.
  - the median is greater than the mean and less than the mode.
  - the median is less than the mean and greater than the mode.
  - the median is equal to the mean and equal to the mode.
- \_\_\_\_\_ 7. For which of the following distributions of scores would the median most clearly be a more appropriate measure of central tendency than the mean?
- 9, 8, 9, 8, 7
  - 10, 22, 8, 9, 6
  - 12, 6, 8, 5, 4
  - 12, 15, 12, 9, 12
  - 23, 7, 3, 27, 16
- \_\_\_\_\_ 8. Why would the median, rather than the mean, be the appropriate measure of central tendency in determining housing values in a particular community?
- The median is useful for measuring how much values deviate from one another.
  - The median is minimally affected by extreme scores.
  - The median is best used to sort values into groups.
  - The median allows you to examine the gap between the lowest and highest value.
  - The median allows you to generalize from representative samples to the general population.
- \_\_\_\_\_ 9. Which measure of central tendency would a baseball manager be most likely to rely on in picking a pinch hitter in a tie game?
- median
  - mode
  - range
  - mean
  - standard deviation
- \_\_\_\_\_ 10. The difference between the highest and lowest scores in a distribution is the
- mean.
  - range.
  - median.
  - standard deviation.
  - correlation coefficient.

- \_\_\_\_\_ 11. The IQ scores of the five members of the Duluth family are 100, 82, 104, 96, and 118. For this distribution of scores, the range is
- 6.
  - 14.
  - 36.
  - 48.
  - 100.
- \_\_\_\_\_ 12. Which of the following is a measure of the degree of variation among a set of events?
- mean
  - scatterplot
  - standard deviation
  - median
  - correlation coefficient
- \_\_\_\_\_ 13. Evelyn wants to know how consistent her bowling scores have been during the past season. Which of the following measures would be most relevant to this specific concern?
- mean
  - median
  - scatterplot
  - standard deviation
  - correlation coefficient
- \_\_\_\_\_ 14. Professor Woo noticed that the distribution of students' scores on her last biology test had an extremely small standard deviation. This indicates that the
- test was given to a very small class of students.
  - students' scores tended to be very similar to one another.
  - mean test score was lower than the median score.
  - students generally performed very well on the test.
  - test was a poor measure of the students' knowledge.
- \_\_\_\_\_ 15. If scores on the Wechsler Adult Intelligence Scale (WAIS) are normally distributed, with a mean of 100 and a standard deviation of 15, what percentage of scores will fall between 85 and 115?
- 34
  - 47
  - 68
  - 80
  - 95

- \_\_\_\_\_ 16. The distributions of which of the following types of data are most likely to form a normal curve?
- scores on a homework assignment
  - years of historical events
  - age in a school grade
  - income
  - height
- \_\_\_\_\_ 17. Coach Vroman attended a clinic to improve his basketball coaching skills. Afterward, he randomly assigned his seventh-grade players to two groups: Group 1 will be coached by the new method and Group 2 will be coached by his old method. He then measured their performance at one team practice to judge the effectiveness of the new coaching method. Which of the following might affect the statistical significance of his study?
- Approval from an Institutional Review Board (IRB) was not obtained before beginning his study.
  - To determine the effectiveness of the new method, Coach Vroman must first find the median score of each group.
  - By testing only two groups, Coach Vroman's sample size may be too small and unrepresentative.
  - Coach Vroman should wait until next year to test the incoming freshman because his sample was biased.
  - A third variable, such as height, might affect the relationship between the two variables.
- \_\_\_\_\_ 18. To determine whether a research finding is statistically significant, researchers
- compare the means of the control group and experimental group.
  - survey other researchers to ensure the hypothesis is significant.
  - perform detailed case studies to validate findings.
  - confirm correlational evidence with empirical findings.
  - convert positive correlations to negative ones.
- \_\_\_\_\_ 19. Why are researchers so careful about drawing conclusions regarding statistical significance?
- Statistical significance determines which research method should be used for a hypothesis.
  - They want to make sure an observed difference isn't due to chance.
  - Statistical significance is primarily a subjective decision, so researchers need to be more careful.
  - They need to make sure the results are important.
  - Statistical significance is used in case studies, not experiments, so researchers do not have a control group to rely on.

Name: \_\_\_\_\_

ID: A

- \_\_\_\_\_ 20. If a result is statistically significant, this means that the
- a. results of the test are positively correlated with another factor.
  - b. participants received scores above the 50 percentile.
  - c. results of the research have practical significance.
  - d. scores were 1 standard deviation from the mean.
  - e. there is less than a 5 percent likelihood that the results occurred by chance.

## Module 7 Quiz Answer Section

### MULTIPLE CHOICE

1. ANS: E                   PTS: 1                   DIF: Medium           OBJ: Unit II | 7-1  
TOP: Measures of central tendency           SKL: Conceptual/Application
2. ANS: E                   PTS: 1                   DIF: Medium           OBJ: Unit II | 7-1  
TOP: Measures of central tendency           SKL: Conceptual/Application
3. ANS: B                   PTS: 1                   DIF: Medium           OBJ: Unit II | 7-1  
TOP: Measures of central tendency           SKL: Factual/Definitional
4. ANS: C                   PTS: 1                   DIF: Medium           OBJ: Unit II | 7-1  
TOP: Measures of central tendency           SKL: Conceptual/Application
5. ANS: A                   PTS: 1                   DIF: Medium           OBJ: Unit II | 7-1  
TOP: Measures of central tendency           SKL: Conceptual/Application
6. ANS: D                   PTS: 1                   DIF: Difficult           OBJ: Unit II | 7-1  
TOP: Measures of central tendency           SKL: Conceptual/Application
7. ANS: B                   PTS: 1                   DIF: Difficult           OBJ: Unit II | 7-1  
TOP: Measures of central tendency           SKL: Conceptual
8. ANS: B                   PTS: 1                   DIF: Medium           OBJ: Unit II | 7-1  
TOP: Describing data/Measures of central tendency           SKL: Factual/Definitional
9. ANS: D                   PTS: 1                   DIF: Medium           OBJ: Unit II | 7-1  
TOP: Describing data/Measures of central tendency           SKL: Factual/Definitional
10. ANS: B                   PTS: 1                   DIF: Easy               OBJ: Unit II | 7-1  
TOP: Measures of variation                   SKL: Factual/Definitional
11. ANS: C                   PTS: 1                   DIF: Easy               OBJ: Unit II | 7-1  
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16. ANS: E                   PTS: 1                   DIF: Difficult           OBJ: Unit II | 7-1  
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17. ANS: C                   PTS: 1                   DIF: Medium           OBJ: Unit II | 7-2  
TOP: Making inferences/When is a difference reliable?           SKL: Conceptual/Application
18. ANS: A                   PTS: 1                   DIF: Medium           OBJ: Unit II | 7-2  
TOP: Making inferences/When is a difference significant?           SKL: Conceptual/Application
19. ANS: B                   PTS: 1                   DIF: Medium           OBJ: Unit II | 7-2  
TOP: Making inferences/When is a difference significant?           SKL: Conceptual/Application
20. ANS: E                   PTS: 1                   DIF: Easy               OBJ: Unit II | 7-2  
TOP: Making inferences/When is a difference significant?           SKL: Factual/Definitional

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Name: \_\_\_\_\_

ID: B

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  - b. 47
  - c. 68
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2. ANS: C                   PTS: 1                   DIF: Medium           OBJ: Unit II | 7-1  
TOP: Measures of central tendency           SKL: Conceptual/Application
3. ANS: B                   PTS: 1                   DIF: Medium           OBJ: Unit II | 7-2  
TOP: Making inferences/When is a difference significant?           SKL: Conceptual/Application
4. ANS: B                   PTS: 1                   DIF: Medium           OBJ: Unit II | 7-1  
TOP: Measures of central tendency           SKL: Factual/Definitional
5. ANS: E                   PTS: 1                   DIF: Difficult           OBJ: Unit II | 7-1  
TOP: Measures of variation           SKL: Conceptual/Application
6. ANS: E                   PTS: 1                   DIF: Easy           OBJ: Unit II | 7-2  
TOP: Making inferences/When is a difference significant?           SKL: Factual/Definitional
7. ANS: C                   PTS: 1                   DIF: Easy           OBJ: Unit II | 7-1  
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8. ANS: A                   PTS: 1                   DIF: Medium           OBJ: Unit II | 7-2  
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