|  |
| --- |
| *Indicate whether the statement is true or false.* |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 1. Class width is the number of scores grouped together in an interval, not the scores themselves nor the frequency.   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False | |

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| --- | --- | --- | --- | --- | --- | --- |
| 2. Class limits are also referred to as raw score limits.   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False | |

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| --- | --- | --- | --- | --- | --- | --- |
| 3. ​The percentile rank and percentile scores are identical.   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False | |

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| --- | --- | --- | --- | --- | --- | --- |
| 4. A frequency distribution is the number of observations associated with each value (or score).   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False | |

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| --- | --- | --- | --- | --- | --- | --- |
| 5. The range represents the most complex measure of variability.   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False | |

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| --- | --- | --- | --- | --- | --- | --- |
| 6. Another term for class size is real class limits.   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False | |

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| --- | --- | --- | --- | --- | --- | --- |
| 7. ​A grouped frequency distribution generally destroys much of the original detail of the data.  ​   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False | |

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| 8. The sum of the frequencies is referred to as cumulative frequency.   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False | |

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| --- | --- | --- | --- | --- | --- | --- |
| 9. You have scored in the 65th percentile for your class. This means that your score is greater than or equal to 65% of all the scores in the class.​   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False | |

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| --- |
| *Indicate the answer choice that best completes the statement or answers the question.* |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 10. The rule for subsequent computations includes the preferred class size as:   |  |  |  | | --- | --- | --- | |  | a. | 1, 2, 3, 5, 7, 10, 15, or any multiple of 5 | |  | b. | 1, 2, 3, 5 | |  | c. | 1, 2, 3, 6, 12, or any multiple of 6 | |  | d. | any of the above, it does not matter | |

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| 11. The table is an arrangement of values that groups data into columns and rows.​   |  |  |  | | --- | --- | --- | |  | a. | ​Columns present the data up and down | |  | b. | ​Rows present the data across | |  | c. | ​Both are correct | |  | d. | ​Neither are correct | |

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| 12. When defining class boundaries,   |  |  |  | | --- | --- | --- | |  | a. | use the same principle on which rounding of numbers is based | |  | b. | do not need to round | |  | c. | round only if you want to | |  | d. | none of the above | |

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| 13. Which term best defines the end numbers?   |  |  |  | | --- | --- | --- | |  | a. | Class interval | |  | b. | Class limits | |  | c. | Class boundaries | |  | d. | Class size | |

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| 14. Which term best defines the difference between the lower and upper class limit?   |  |  |  | | --- | --- | --- | |  | a. | Class interval | |  | b. | Class limits | |  | c. | Class boundaries | |  | d. | Class size | |

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| 15. When creating a frequency distribution, the first step is to \_\_\_\_.   |  |  |  | | --- | --- | --- | |  | a. | determine the high and low scores | |  | b. | determine the range | |  | c. | determine the number of class intervals | |  | d. | set class limits | |

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| 16. An example of a variable in a frequency distribution is \_\_\_\_.   |  |  |  | | --- | --- | --- | |  | a. | third party payers | |  | b. | males | |  | c. | newborns | |  | d. | all of the above | |

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| 17. ​Calculate the range for the following data: 50, 14, 12, 22, 99, 70, 25, 29, 81, 54, 19, 80, 18, 36, 72, 69, 38, 56, 66, 24   |  |  |  | | --- | --- | --- | |  | a. | ​85 | |  | b. | 68​ | |  | c. | ​81 | |  | d. | ​87 | |

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| 18. If a student scores at the 50th percentile,​   |  |  |  | | --- | --- | --- | |  | a. | ​his score is in the middle of the distribution | |  | b. | ​his score is the highest score | |  | c. | ​his score is the median score | |  | d. | ​None of the above | |

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| 19. ​To approximate the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, divide the range by the number of classes desired.  ​   |  |  |  | | --- | --- | --- | |  | a. | ​class interval | |  | b. | ​cumulative frequency | |  | c. | ​class width | |  | d. | ​range | |

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| 20. The “real limits” of the class interval 1-3 are:   |  |  |  | | --- | --- | --- | |  | a. | 0.5 - 3.4 | |  | b. | 1 - 3 | |  | c. | 0 - 4 | |  | d. | 1.5 - 3.5 | |

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| 21. ​The percentile rank is defined as \_\_\_\_\_\_\_\_\_\_\_.   |  |  |  | | --- | --- | --- | |  | a. | ​lower than the given score | |  | b. | ​the percentile for a specific score | |  | c. | ​the score that one has to attain to reach a specific percentile | |  | d. | ​higher than the given score | |

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| 22. ​Based upon the following information, the upper class limit of the lowest interval is:  Heights (in centimeters) of Patients 175-179 170-174 165-169 160-164 155-159 150-154    ​   |  |  |  | | --- | --- | --- | |  | a. | ​150 | |  | b. | ​179 | |  | c. | ​154 | |  | d. | ​175 | |

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| 23. The purpose of a grouped frequency distribution is \_\_\_\_.   |  |  |  | | --- | --- | --- | |  | a. | to condense data to a more readily grouped form | |  | b. | to arrange scores | |  | c. | to bring order to chaos | |  | d. | a and c | |

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| 24. A cumulative frequency is \_\_\_\_.   |  |  |  | | --- | --- | --- | |  | a. | the sum of the frequencies, starting at the lowest interval and including the frequencies with that interval | |  | b. | the sum of the frequencies, starting at the highest interval and including the frequencies with that interval | |  | c. | the sum of the frequencies, starting at the lowest interval and excluding the frequencies with that interval | |  | d. | the sum of the frequencies, starting at the highest interval and excluding the frequencies with that interval | |

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| 25. Which best defines the term “quartiles”?   |  |  |  | | --- | --- | --- | |  | a. | Position of a score when all scores are arranged in order such as low to high | |  | b. | Arranged data divided into subgroups | |  | c. | Arranged data divided into ten equal parts | |  | d. | Arranged data divided into 100 equal segments | |

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| 26. A frequency can be defined as:   |  |  |  | | --- | --- | --- | |  | a. | the sum of the frequencies | |  | b. | the number of times a certain score appears in a distribution | |  | c. | the difference between the largest and the smallest score | |  | d. | the category into which a score can be placed | |

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| 27. ​In a table, whole numbers most often are right-justified.   |  |  |  | | --- | --- | --- | |  | a. | ​True | |  | b. | ​False | |

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| 28. Which best defines the term “percentiles”?   |  |  |  | | --- | --- | --- | |  | a. | Position of a score when all scores are arranged in order such as low to high | |  | b. | Arranged data divided into subgroups | |  | c. | Arranged data divided into ten equal parts | |  | d. | Arranged data divided into 100 equal segments | |

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| 29. ​In a table, decimal numbers must be aligned by the decimal point and have the same number of decimal places.   |  |  |  | | --- | --- | --- | |  | a. | ​True | |  | b. | ​False | |

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| 30. Which term is also referred to as real class limits?   |  |  |  | | --- | --- | --- | |  | a. | Class interval | |  | b. | Class limits | |  | c. | Class boundaries | |  | d. | Class size | |

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| 31. ​What is the range in this set of scores: 5,10, 15, 20, 25, 30, 35, 40, 45, and 50?   |  |  |  | | --- | --- | --- | |  | a. | ​5 | |  | b. | ​30 | |  | c. | ​45 | |  | d. | ​50 | |

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| 32. A Table Header or Title is an important component of a table. A table header should clearly answer:​   |  |  |  | | --- | --- | --- | |  | a. | ​what the data represents | |  | b. | ​what the source of the data is | |  | c. | ​when the data was collected and/or the time period represented in the table | |  | d. | ​All of the above | |

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| 33. Which best defines the term “rank”?   |  |  |  | | --- | --- | --- | |  | a. | Position of a score when all scores are arranged in order of low to high | |  | b. | Arranged data divided into subgroups | |  | c. | Arranged data divided into ten equal parts | |  | d. | Arranged data divided into 100 equal segments | |

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| 34. ​\_\_\_\_\_\_\_\_\_\_\_\_\_\_ are used to present large amounts of text-based quantitative data.   |  |  |  | | --- | --- | --- | |  | a. | ​graphs | |  | b. | ​charts | |  | c. | ​tables | |  | d. | ​polygons | |

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| 35. A class interval limit of  60 to 69 pounds  includes all measurements from \_\_\_\_\_\_\_ to \_\_\_\_\_\_\_.   |  |  |  | | --- | --- | --- | |  | a. | 59.49 to 69.49 | |  | b. | 59.50 to 69.50 | |  | c. | 59.50 to 69.49 | |  | d. | 60.49 to 69.50 | |

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| 36. ​Data divided into ten equal parts are referred to as \_\_\_\_\_\_\_\_\_\_\_\_.   |  |  |  | | --- | --- | --- | |  | a. | ​rank | |  | b. | ​quartiles | |  | c. | ​percentiles | |  | d. | ​deciles | |

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| 37. ​The text in a table should always be right-justified.   |  |  |  | | --- | --- | --- | |  | a. | ​True | |  | b. | ​False | |

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| 38. A class is \_\_\_\_.   |  |  |  | | --- | --- | --- | |  | a. | a category into which a score can be placed | |  | b. | a score or number | |  | c. | a range of scores | |  | d. | all of the above | |

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| 39. Which term best defines the range of scores?   |  |  |  | | --- | --- | --- | |  | a. | Class interval | |  | b. | Class limits | |  | c. | Class boundaries | |  | d. | Class size | |

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| 40. For interval limits, 40 - 44, the class size is 4​   |  |  |  | | --- | --- | --- | |  | a. | ​True | |  | b. | ​False | |

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| 41. The first class interval in the grouped frequency distribution is 5-10. The width of the interval is:   |  |  |  | | --- | --- | --- | |  | a. | 5 | |  | b. | 5.5 | |  | c. | 6 | |  | d. | 6.5 | |

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| 42. Which best defines the term “deciles”?   |  |  |  | | --- | --- | --- | |  | a. | Position of a score when all scores are arranged in order such as low to high | |  | b. | Arranged data divided into subgroups | |  | c. | Arranged data divided into ten equal parts | |  | d. | Arranged data divided into 100 equal segments | |

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| 43. When done manually, tally marks are recorded for each score in the array, and the total tally marks becomes the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ for each class or category.​   |  |  |  | | --- | --- | --- | |  | a. | ​frequency | |  | b. | ​range | |  | c. | interval | |  | d. | ​median | |

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| 44. Range can be defined as:   |  |  |  | | --- | --- | --- | |  | a. | a category into which a score can be placed | |  | b. | the number of times a certain score appears in a distribution | |  | c. | the difference between the largest and the smallest score | |  | d. | the category into which a score can be placed | |

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| 45. Which best defines a class?   |  |  |  | | --- | --- | --- | |  | a. | A category in which a score can be placed | |  | b. | A single score in a small distribution | |  | c. | Both a and b | |  | d. | Neither a nor b | |

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| 46. Which of the following is not one of the four main table elements?​   |  |  |  | | --- | --- | --- | |  | a. | ​Table header | |  | b. | ​Data | |  | c. | ​Table number | |  | d. | ​Percentage component | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
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| 47. ​Not all tables require a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. This is used to aid the reader in accessing the data.   |  |  |  | | --- | --- | --- | |  | a. | ​table title | |  | b. | ​table number | |  | c. | ​table footnote | |  | d. | ​table heading | |

|  |
| --- |
| *Enter the appropriate word(s) to complete the statement.* |

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| 48. In a frequency distribution in which the lowest value is 5 and the highest value is 20, the range is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. |

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| --- |
| 49. You are constructing a grouped frequency distribution using length of stay data. You have length of stay scores       ranging from 2 days to 16 days. If you select 5 as the number of class intervals you want, \_\_\_\_\_\_\_(2, 3, 4, 5) is the        best class size.  ​ |

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| 50. The ideal or recommended number of class intervals is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (12, 15, 21, 25). |

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| 51. It is recommended that the number of class intervals be at least 5 and no more than \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (15, 20, 12, 25). |

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| --- |
| 52. A(n) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (2-word term) is the number of observations of each value or score. |

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| 53. In a frequency distribution, the lowest score is 25 and the highest score is 50. What is the range? |

**Answer Key**

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| --- |
| 1. True |

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| --- |
| 2. True |

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| --- |
| 3. True |

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| --- |
| 4. True |

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| --- |
| 5. False |

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| --- |
| 6. False |

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| --- |
| 7. True |

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| --- |
| 8. True |

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| --- |
| 9. True |

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| --- |
| 10. a |

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| --- |
| 11. c |

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| --- |
| 12. a |

|  |
| --- |
| 13. b |

|  |
| --- |
| 14. d |

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| --- |
| 15. a |

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| --- |
| 16. d |

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| --- |
| 17. d |

|  |
| --- |
| 18. c |

|  |
| --- |
| 19. c |

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| --- |
| 20. a |

|  |
| --- |
| 21. b |

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| --- |
| 22. c |

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| --- |
| 23. d |

|  |
| --- |
| 24. a |

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| --- |
| 25. b |

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| --- |
| 26. b |

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| --- |
| 27. a |

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| --- |
| 28. d |

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| --- |
| 29. a |

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| --- |
| 30. c |

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| --- |
| 31. c |

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| --- |
| 32. d |

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| --- |
| 33. a |

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| --- |
| 34. c |

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| --- |
| 35. c |

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| --- |
| 36. d |

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| 37. b |

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| 38. a |

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| 39. a |

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| --- |
| 40. b |

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| --- |
| 41. c |

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| --- |
| 42. c |

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| --- |
| 43. a |

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| --- |
| 44. c |

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| --- |
| 45. c |

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| --- |
| 46. d |

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| --- |
| 47. b |

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| --- |
| 48. 15 fifteen |

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| --- |
| 49. 3 |

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| --- |
| 50. 15 |

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| --- |
| 51. 20 |

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| --- |
| 52. frequency distribution |

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| --- |
| 53. 25 |