|  |
| --- |
| *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 |

 |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 2. Class limits are also referred to as raw score limits.

|  |  |  |
| --- | --- | --- |
|   | a.  | True |
|   | b.  | False |

 |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 3. ​The percentile rank and percentile scores are identical.

|  |  |  |
| --- | --- | --- |
|   | a.  | True |
|   | b.  | False |

 |

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

|  |  |  |
| --- | --- | --- |
|   | a.  | True |
|   | b.  | False |

 |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 5. The range represents the most complex measure of variability.

|  |  |  |
| --- | --- | --- |
|   | a.  | True |
|   | b.  | False |

 |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 6. Another term for class size is real class limits.

|  |  |  |
| --- | --- | --- |
|   | a.  | True |
|   | b.  | False |

 |

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

|  |  |  |
| --- | --- | --- |
|   | a.  | True |
|   | b.  | False |

 |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 8. The sum of the frequencies is referred to as cumulative frequency.

|  |  |  |
| --- | --- | --- |
|   | a.  | True |
|   | b.  | False |

 |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 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 |

 |

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

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 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 |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 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 |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 13. Which term best defines the end numbers?

|  |  |  |
| --- | --- | --- |
|   | a.  | Class interval |
|   | b.  | Class limits |
|   | c.  | Class boundaries |
|   | d.  | Class size |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 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 |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 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 Patients175-179170-174165-169160-164155-159150-154 ​

|  |  |  |
| --- | --- | --- |
|   | 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 |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 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 |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 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 |

 |

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

|  |  |  |
| --- | --- | --- |
|   | a.  | ​True |
|   | b.  | ​False |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 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 |

 |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 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 |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 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 |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 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 |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 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 |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 34. ​\_\_\_\_\_\_\_\_\_\_\_\_\_\_ are used to present large amounts of text-based quantitative data.

|  |  |  |
| --- | --- | --- |
|   | a.  | ​graphs |
|   | b.  | ​charts |
|   | c.  | ​tables |
|   | d.  | ​polygons |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 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 |

 |

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

|  |  |  |
| --- | --- | --- |
|   | a.  | ​True |
|   | b.  | ​False |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 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 |

 |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 40. For interval limits, 40 - 44, the class size is 4​

|  |  |  |
| --- | --- | --- |
|   | a.  | ​True |
|   | b.  | ​False |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 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 |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 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 |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 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 |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 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 |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 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 |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 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.* |

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

|  |
| --- |
| 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.​ |

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

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

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

|  |
| --- |
|  |

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

**Answer Key**

|  |
| --- |
| 1. True |

|  |
| --- |
| 2. True |

|  |
| --- |
| 3. True |

|  |
| --- |
| 4. True |

|  |
| --- |
| 5. False |

|  |
| --- |
| 6. False |

|  |
| --- |
| 7. True |

|  |
| --- |
| 8. True |

|  |
| --- |
| 9. True |

|  |
| --- |
| 10. a |

|  |
| --- |
| 11. c |

|  |
| --- |
| 12. a |

|  |
| --- |
| 13. b |

|  |
| --- |
| 14. d |

|  |
| --- |
| 15. a |

|  |
| --- |
| 16. d |

|  |
| --- |
| 17. d |

|  |
| --- |
| 18. c |

|  |
| --- |
| 19. c |

|  |
| --- |
| 20. a |

|  |
| --- |
| 21. b |

|  |
| --- |
| 22. c |

|  |
| --- |
| 23. d |

|  |
| --- |
| 24. a |

|  |
| --- |
| 25. b |

|  |
| --- |
| 26. b |

|  |
| --- |
| 27. a |

|  |
| --- |
| 28. d |

|  |
| --- |
| 29. a |

|  |
| --- |
| 30. c |

|  |
| --- |
| 31. c |

|  |
| --- |
| 32. d |

|  |
| --- |
| 33. a |

|  |
| --- |
| 34. c |

|  |
| --- |
| 35. c |

|  |
| --- |
| 36. d |

|  |
| --- |
| 37. b |

|  |
| --- |
| 38. a |

|  |
| --- |
| 39. a |

|  |
| --- |
| 40. b |

|  |
| --- |
| 41. c |

|  |
| --- |
| 42. c |

|  |
| --- |
| 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. 15fifteen |

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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 |