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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

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

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

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

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- c. his score is the median score
- d. None of the above

19. To approximate the _____, divide the range by the number of classes desired.

- a. class interval
- b. cumulative frequency
- c. class width
- d. range

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

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

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

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

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- 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
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
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

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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
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
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
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:

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- 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

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 _____.

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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.

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?

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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

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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

44. c

45. c

46. d

47. b

48. 15
fifteen

49. 3

50. 15

51. 20

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52. frequency distribution

53. 25