|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1. What is the total number of scores for the distribution shown in the following table?​X    f4    33    52    41    2

|  |  |  |
| --- | --- | --- |
|   | a.  | ​4 |
|   | b.  | ​10 |
|   | c.  | ​14 |
|   | d.  | ​37 |

|  |  |
| --- | --- |
| *ANSWER:* | c |
| *REFERENCES:* | 2.1 Frequency Distributions and Frequency Distribution Tables |
| *QUESTION TYPE:* | Multiple Choice |
| *KEYWORDS:* | Bloom’s: Understand |

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|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 2. A sample of *n* = 15 scores ranges from a high of X = 11 to a low of X = 3.  If these scores are placed in a frequency distribution table, how many X values will be listed in the first column of that table?​

|  |  |  |
| --- | --- | --- |
|   | a.  | ​8 |
|   | b.  | ​9 |
|   | c.  | ​11 |
|   | d.  | ​15 |

|  |  |
| --- | --- |
| *ANSWER:* | b |
| *REFERENCES:* | 2. 1 Frequency Distributions and Frequency Distribution Tables |
| *QUESTION TYPE:* | Multiple Choice |
| *KEYWORDS:* | Bloom’s: Understand |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 3. For the following frequency distribution of quiz scores, how many individuals took the quiz?​X    f 5    64    53    52    31    2 ​

|  |  |  |
| --- | --- | --- |
|   | a.  | ​n = 5 |
|   | b.  | ​n = 7 |
|   | c.  | ​n = 15 |
|   | d.  | ​n = 21 |

|  |  |
| --- | --- |
| *ANSWER:* | d |
| *REFERENCES:* | 2. 1 Frequency Distributions and Frequency Distribution Tables |
| *QUESTION TYPE:* | Multiple Choice |
| *KEYWORDS:* | Bloom’s: Understand |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 4. For the following distribution of quiz scores, if a score of X = 3 or higher is needed for a passing grade, how many individuals passed?​X    f 5    64    53    52    31    2 ​

|  |  |  |
| --- | --- | --- |
|   | a.  | ​3 |
|   | b.  | ​11 |
|   | c.  | ​16 |
|   | d.  | ​21 |

|  |  |
| --- | --- |
| *ANSWER:* | c |
| *REFERENCES:* | 2. 1 Frequency Distributions and Frequency Distribution Tables |
| *QUESTION TYPE:* | Multiple Choice |
| *KEYWORDS:* | Bloom’s: Understand |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 5. For the following distribution of quiz scores, How many individuals had a score of X = 2?​X    f 5    64    53    52    31    2 ​

|  |  |  |
| --- | --- | --- |
|   | a.  | ​1 |
|   | b.  | ​2 |
|   | c.  | ​3 |
|   | d.  | ​5 |

|  |  |
| --- | --- |
| *ANSWER:* | c |
| *REFERENCES:* | 2. 1 Frequency Distributions and Frequency Distribution Tables |
| *QUESTION TYPE:* | Multiple Choice |
| *KEYWORDS:* | Bloom’s: Understand |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 6. For the following frequency distribution of exam scores, what is the lowest possible reported score on the exam?​X         f 90-94   385-89   480-84   575-79   270-74   1

|  |  |  |
| --- | --- | --- |
|   | a.  | ​x = 70 |
|   | b.  | ​x = 74 |
|   | c.  | ​x = 90 |
|   | d.  | ​x=94 |

|  |  |
| --- | --- |
| *ANSWER:* | a |
| *REFERENCES:* | 2.2 Grouped Frequency Distribution Tables |
| *QUESTION TYPE:* | Multiple Choice |
| *KEYWORDS:* | Bloom’s: Understand |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 7. For the following frequency distribution of exam scores, how many students had scores lower than X = 80?​X         f 90-94   385-89   480-84   575-79   270-74   1

|  |  |  |
| --- | --- | --- |
|   | a.  | ​2 |
|   | b.  | ​3 |
|   | c.  | ​7 |
|   | d.  | ​8 |

|  |  |
| --- | --- |
| *ANSWER:* | b |
| *REFERENCES:* | 2.2 Grouped Frequency Distribution Tables |
| *QUESTION TYPE:* | Multiple Choice |
| *KEYWORDS:* | Bloom’s: Understand |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8. In a grouped frequency distribution one interval is listed as 50-59.  Assuming that the scores are measuring a continuous variable, what are the real limits of this interval?​

|  |  |  |
| --- | --- | --- |
|   | a.  | ​50 and 59 |
|   | b.  | ​50.5 and 59.5 |
|   | c.  | ​49.5 and 59.5 |
|   | d.  | ​49.5 and 60.5 |

|  |  |
| --- | --- |
| *ANSWER:* | c |
| *REFERENCES:* | 2.2 Grouped Frequency Distribution Tables |
| *QUESTION TYPE:* | Multiple Choice |
| *KEYWORDS:* | Bloom’s: Understand |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 9. For the following distribution, how many people had scores less than X = 20?​X         f20-25   215-19   510-14   45-9       1

|  |  |  |
| --- | --- | --- |
|   | a.  | ​5 |
|   | b.  | ​10 |
|   | c.  | ​11 |
|   | d.  | ​12 |

|  |  |
| --- | --- |
| *ANSWER:* | b |
| *REFERENCES:* | 2.2 Grouped Frequency Distribution Tables |
| *QUESTION TYPE:* | Multiple Choice |
| *KEYWORDS:* | Bloom’s: Understand |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 10. For the following distribution, what is the highest possible score?​X         f 20-25   215-19   510-14   45-9       1

|  |  |  |
| --- | --- | --- |
|   | a.  | ​5 |
|   | b.  | ​20 |
|   | c.  | ​25 |
|   | d.  | ​26 |

|  |  |
| --- | --- |
| *ANSWER:* | c |
| *REFERENCES:* | 2.2 Grouped Frequency Distribution Tables |
| *QUESTION TYPE:* | Multiple Choice |
| *KEYWORDS:* | Bloom’s: Understand |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 11. For the following distribution, how many people had scores greater than X = 14?​X         f20-25   215-19   510-14   45-9       1

|  |  |  |
| --- | --- | --- |
|   | a.  | ​5 |
|   | b.  | ​7 |
|   | c.  | ​10 |
|   | d.  | ​11 |

|  |  |
| --- | --- |
| *ANSWER:* | b |
| *REFERENCES:* | 2.2 Grouped Frequency Distribution Tables |
| *QUESTION TYPE:* | Multiple Choice |
| *KEYWORDS:* | Bloom’s: Understand |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 12. For the following distribution, what is the width of each class interval?​X         f20-24   25-19     510-14   45-9       1​

|  |  |  |
| --- | --- | --- |
|   | a.  | 4​ |
|   | b.  | ​4.5 |
|   | c.  | ​5 |
|   | d.  | ​10 |

|  |  |
| --- | --- |
| *ANSWER:* | c |
| *REFERENCES:* | 2.2 Grouped Frequency Distribution Tables |
| *QUESTION TYPE:* | Multiple Choice |
| *KEYWORDS:* | Bloom’s: Understand |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 13. If the following continuous distribution was shown in a histogram, the bar above the 15-19 interval would reach from \_\_\_\_ to \_\_\_\_.​X         f20-25   215-19   510-14   45-9       1

|  |  |  |
| --- | --- | --- |
|   | a.  | ​X = 14.5 to X = 19.5 |
|   | b.  | ​X = 15.0 to X = 19.0 |
|   | c.  | X = 15.5 to X = 18.5​ |
|   | d.  | ​X = 15.5 to X = 19.5 |

|  |  |
| --- | --- |
| *ANSWER:* | a |
| *REFERENCES:* | 2.3 Frequency Distribution Graphs |
| *QUESTION TYPE:* | Multiple Choice |
| *KEYWORDS:* | Bloom’s: Understand |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 14. In a frequency distribution graph, frequencies are presented on the \_\_\_\_ and the scores (categories) are listed on the \_\_\_\_.​

|  |  |  |
| --- | --- | --- |
|   | a.  | ​X axis; Y axis |
|   | b.  | ​horizontal line; vertical line |
|   | c.  | ​Y axis; X axis |
|   | d.  | ​class interval ;horizontal line |

|  |  |
| --- | --- |
| *ANSWER:* | c |
| *REFERENCES:* | 2.3 Frequency Distribution Graphs |
| *QUESTION TYPE:* | Multiple Choice |
| *KEYWORDS:* | Bloom’s: Remember |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 15. What frequency distribution graph is appropriate for scores measured on a nominal scale?​

|  |  |  |
| --- | --- | --- |
|   | a.  | ​only a histogram |
|   | b.  | ​only a polygon |
|   | c.  | ​either a histogram or a polygon |
|   | d.  | ​only a bar graph |

|  |  |
| --- | --- |
| *ANSWER:* | d |
| *REFERENCES:* | 2.3 Frequency Distribution Graphs |
| *QUESTION TYPE:* | Multiple Choice |
| *KEYWORDS:* | Bloom’s: Understand |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 16. The classrooms in the Psychology department are numbered from 100 to 108.  A professor records the number of classes held in each room during the fall semester.  If these values are presented in a frequency distribution graph, what kind of graph would be appropriate?​

|  |  |  |
| --- | --- | --- |
|   | a.  | ​a histogram |
|   | b.  | ​a  polygon |
|   | c.  | ​a histogram or a polygon |
|   | d.  | ​a bar graph |

|  |  |
| --- | --- |
| *ANSWER:* | d |
| *REFERENCES:* | 2.3 Frequency Distribution Graphs |
| *QUESTION TYPE:* | Multiple Choice |
| *KEYWORDS:* | Bloom’s: Apply |

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|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 17. A researcher records the number of traffic tickets issued in each county along the New York State thruway. If the results are presented in a frequency distribution graph, what kind of graph should be used?​

|  |  |  |
| --- | --- | --- |
|   | a.  | ​a bar graph |
|   | b.  | ​a histogram |
|   | c.  | ​a polygon |
|   | d.  | ​either a histogram or a polygon |

|  |  |
| --- | --- |
| *ANSWER:* | a |
| *REFERENCES:* | 2.3 Frequency Distribution Graphs |
| *QUESTION TYPE:* | Multiple Choice |
| *KEYWORDS:* | Bloom’s: Apply |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 18. What kind of frequency distribution graph shows the frequencies as bars, with no space between adjacent bars?​

|  |  |  |
| --- | --- | --- |
|   | a.  | ​a bar graph |
|   | b.  | ​a histogram |
|   | c.  | ​a polygon |
|   | d.  | ​a pie chart |

|  |  |
| --- | --- |
| *ANSWER:* | b |
| *REFERENCES:* | 2.3 Frequency Distribution Graphs |
| *QUESTION TYPE:* | Multiple Choice |
| *KEYWORDS:* | Bloom’s: Remember |

 |

|  |
| --- |
|  Figure 2.1 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 19. What scale of measurement was used to measure the scores in the distribution shown in the accompanying graph, Figure 2.1?​

|  |  |  |
| --- | --- | --- |
|   | a.  | ​nominal |
|   | b.  | ​ordinal |
|   | c.  | ​interval or ratio |
|   | d.  | ​non-numeric |

|  |  |
| --- | --- |
| *ANSWER:* | c |
| *REFERENCES:* | 2.3 Frequency Distribution Graphs |
| *QUESTION TYPE:* | Multiple Choice |
| *PREFACE NAME:* | Figure 2.1 |
| *KEYWORDS:* | Bloom’s: Understand |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 20. For the distribution in the accompanying graph, Figure 2.1, what is the value of ΣX?​

|  |  |  |
| --- | --- | --- |
|   | a.  | ​10 |
|   | b.  | ​15 |
|   | c.  | ​21 |
|   | d.  | ​30 |

|  |  |
| --- | --- |
| *ANSWER:* | d |
| *REFERENCES:* | 2.3 Frequency Distribution Graphs |
| *QUESTION TYPE:* | Multiple Choice |
| *PREFACE NAME:* | Figure 2.1 |
| *KEYWORDS:* | Bloom’s: Understand |

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|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 21. What kind of frequency distribution graph shows the frequencies as bars that are separated by spaces?​

|  |  |  |
| --- | --- | --- |
|   | a.  | ​a bar graph |
|   | b.  | ​a histogram |
|   | c.  | ​a polygon |
|   | d.  | ​a pie chart |

|  |  |
| --- | --- |
| *ANSWER:* | a |
| *REFERENCES:* | 2.3 Frequency Distribution Graphs |
| *QUESTION TYPE:* | Multiple Choice |
| *KEYWORDS:* | Bloom’s: Remember |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 22. If a frequency distribution is shown in a bar graph, what scale was used to measure the scores?​

|  |  |  |
| --- | --- | --- |
|   | a.  | ​nominal |
|   | b.  | ​nominal or ordinal |
|   | c.  | ​ratio |
|   | d.  | ​interval or ratio |

|  |  |
| --- | --- |
| *ANSWER:* | b |
| *REFERENCES:* | 2.3 Frequency Distribution Graphs |
| *QUESTION TYPE:* | Multiple Choice |
| *KEYWORDS:* | Bloom’s: Understand |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 23. The normal distribution is \_\_\_\_.​

|  |  |  |
| --- | --- | --- |
|   | a.  | ​asymmetric |
|   | b.  | ​skewed to the right |
|   | c.  | ​skewed to the left |
|   | d.  | ​symmetric |

|  |  |
| --- | --- |
| *ANSWER:* | d |
| *REFERENCES:* | 2.3 Frequency Distribution Graphs |
| *QUESTION TYPE:* | Multiple Choice |
| *KEYWORDS:* | Bloom’s: Remember |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 24. If a set of exam scores forms a symmetrical distribution, what can we conclude about the students’ scores?​

|  |  |  |
| --- | --- | --- |
|   | a.  | ​Most of the students had relatively high scores. |
|   | b.  | ​Most of the students had relatively low scores. |
|   | c.  | ​About 50% of the students had high scores and the rest had low scores. |
|   | d.  | ​It is not possible the draw any conclusions about the students’ scores. |

|  |  |
| --- | --- |
| *ANSWER:* | c |
| *REFERENCES:* | 2.3 Frequency Distribution Graphs |
| *QUESTION TYPE:* | Multiple Choice |
| *KEYWORDS:* | Bloom’s: Apply |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 25. What term is used to describe the shape of a distribution in which the scores pile up on the left-hand side of the graph and taper off to the right?​

|  |  |  |
| --- | --- | --- |
|   | a.  | ​symmetrical |
|   | b.  | ​positively skewed |
|   | c.  | ​negatively skewed |
|   | d.  | ​normal |

|  |  |
| --- | --- |
| *ANSWER:* | b |
| *REFERENCES:* | 2.3 Frequency Distribution Graphs |
| *QUESTION TYPE:* | Multiple Choice |
| *KEYWORDS:* | Bloom’s: Remember |

 |

|  |
| --- |
|  Figure 2-2 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 26. What is the shape for the distribution shown in the accompanying graph in Figure 2.2?​

|  |  |  |
| --- | --- | --- |
|   | a.  | ​positively skewed |
|   | b.  | ​negatively skewed |
|   | c.  | ​symmetrical |
|   | d.  | ​normal |

|  |  |
| --- | --- |
| *ANSWER:* | a |
| *REFERENCES:* | 2.3 Frequency Distribution Graphs |
| *QUESTION TYPE:* | Multiple Choice |
| *PREFACE NAME:* | Figure 2-2 |
| *KEYWORDS:* | Bloom’s: Understand |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 27. A skewed distribution typically has \_\_\_\_ tail(s) and a normal distribution has \_\_\_\_ tail(s).​

|  |  |  |
| --- | --- | --- |
|   | a.  | ​1; 1 |
|   | b.  | ​1; 2 |
|   | c.  | ​2,;1 |
|   | d.  | ​2; 2 |

|  |  |
| --- | --- |
| *ANSWER:* | b |
| *REFERENCES:* | 2.3 Frequency Distribution Graphs |
| *QUESTION TYPE:* | Multiple Choice |
| *KEYWORDS:* | Bloom’s: Understand |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 28. The students in a psychology class seemed to think that the midterm exam was very easy. If they are correct, what is the most likely shape for the distribution of exam scores?​

|  |  |  |
| --- | --- | --- |
|   | a.  | ​symmetrical |
|   | b.  | ​positively skewed |
|   | c.  | ​negatively skewed |
|   | d.  | ​normal |

|  |  |
| --- | --- |
| *ANSWER:* | c |
| *REFERENCES:* | 2.3 Frequency Distribution Graphs |
| *QUESTION TYPE:* | Multiple Choice |
| *KEYWORDS:* | Bloom’s: Apply |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 29. In a distribution with positive skew, scores with the highest frequencies are \_\_\_\_.​

|  |  |  |
| --- | --- | --- |
|   | a.  | ​on the right side of the distribution |
|   | b.  | ​on the left side of the distribution |
|   | c.  | ​in the middle of the distribution |
|   | d.  | ​represented at two distinct peaks |

|  |  |
| --- | --- |
| *ANSWER:* | b |
| *REFERENCES:* | 2.3 Frequency Distribution Graphs |
| *QUESTION TYPE:* | Multiple Choice |
| *KEYWORDS:* | Bloom’s: Understand |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 30. What is the shape of the distribution for the following set of data?​Scores: 1, 2, 3, 3, 4, 4, 4 5, 5, 5, 5, 6

|  |  |  |
| --- | --- | --- |
|   | a.  | ​symmetrical |
|   | b.  | ​positively skewed |
|   | c.  | ​negatively skewed |
|   | d.  | ​cumulative |

|  |  |
| --- | --- |
| *ANSWER:* | c |
| *REFERENCES:* | 2.3 Frequency Distribution Graphs |
| *QUESTION TYPE:* | Multiple Choice |
| *KEYWORDS:* | Bloom’s: Understand |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 31. For the distribution in the following table, what is the 50th percentile?​X            c%9         100%8          80%7          50%6          25%​

|  |  |  |
| --- | --- | --- |
|   | a.  | ​X = 8 |
|   | b.  | ​X = 7.5 |
|   | c.  | ​X = 7 |
|   | d.  | ​X = 6.5 |

|  |  |
| --- | --- |
| *ANSWER:* | b |
| *REFERENCES:* | 2.4 Percentiles, Percentile Ranks, and Interpolation |
| *QUESTION TYPE:* | Multiple Choice |
| *KEYWORDS:* | Bloom’s: Understand |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 32. For the distribution in the following table, what is the percentile rank for X = 8.5?​X            c% 9         100%8          80%7          50%6          25%​

|  |  |  |
| --- | --- | --- |
|   | a.  | X = 90%​ |
|   | b.  | ​X = 80% |
|   | c.  | ​X = 65% |
|   | d.  | ​X = 50% |

|  |  |
| --- | --- |
| *ANSWER:* | b |
| *REFERENCES:* | 2.4 Percentiles, Percentile Ranks, and Interpolation |
| *QUESTION TYPE:* | Multiple Choice |
| *KEYWORDS:* | Bloom’s: Understand |

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|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 33. For the distribution in the following table, what is the 90th percentile?X         c%9         100%8          80%7          50%6          25%​

|  |  |  |
| --- | --- | --- |
|   | a.  | X = 9.5​ |
|   | b.  | ​X = 9 |
|   | c.  | ​X = 8.5 |
|   | d.  | ​X = 8 |

|  |  |
| --- | --- |
| *ANSWER:* | b |
| *REFERENCES:* | 2.4 Percentiles, Percentile Ranks, and Interpolation |
| *QUESTION TYPE:* | Multiple Choice |
| *KEYWORDS:* | Bloom’s: Understand |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 34. For the distribution in the following table, what is the percentile rank for X = 7?​X         c%9      100%8        80%7        50%6        25%

|  |  |  |
| --- | --- | --- |
|   | a.  | ​X = 80% |
|   | b.  | ​X = 65% |
|   | c.  | ​X = 50% |
|   | d.  | ​X = 37.5% |

|  |  |
| --- | --- |
| *ANSWER:* | d |
| *REFERENCES:* | 2.4 Percentiles, Percentile Ranks, and Interpolation |
| *QUESTION TYPE:* | Multiple Choice |
| *KEYWORDS:* | Bloom’s: Understand |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 35. For the distribution in the following table, what is the 90th percentile?​X            c%30-34   100%25-29    90%20-24   60%15-19   20%​

|  |  |  |
| --- | --- | --- |
|   | a.  | X = 24.5​ |
|   | b.  | ​X = 25 |
|   | c.  | ​X = 29 |
|   | d.  | ​X = 29.5 |

|  |  |
| --- | --- |
| *ANSWER:* | d |
| *REFERENCES:* | 2.4 Percentiles, Percentile Ranks, and Interpolation |
| *QUESTION TYPE:* | Multiple Choice |
| *KEYWORDS:* | Bloom’s: Understand |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 36. For the distribution in the following table, what is the percentile rank for X = 24.5?​ X            c%30-34   100%25-29   90%20-24   60%15-19   20%​

|  |  |  |
| --- | --- | --- |
|   | a.  | ​40% |
|   | b.  | ​60% |
|   | c.  | ​75% |
|   | d.  | ​90% |

|  |  |
| --- | --- |
| *ANSWER:* | b |
| *REFERENCES:* | 2.4 Percentiles, Percentile Ranks, and Interpolation |
| *QUESTION TYPE:* | Multiple Choice |
| *KEYWORDS:* | Bloom’s: Understand |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 37. For the distribution in the following table, what is the 50th percentile?​X            c%50-59   100%40-49   90%30-39   60%20-29   20%

|  |  |  |
| --- | --- | --- |
|   | a.  | X = 32​ |
|   | b.  | ​X = 35 |
|   | c.  | ​X = 35 |
|   | d.  | ​X = 39 |

|  |  |
| --- | --- |
| *ANSWER:* | c |
| *REFERENCES:* | 2.4 Percentiles, Percentile Ranks, and Interpolation |
| *QUESTION TYPE:* | Multiple Choice |
| *KEYWORDS:* | Bloom’s: Understand |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 38. For the distribution in the following table, what is the percentile rank for X = 32?​ X            c%30-34   100%25-29     90%20-24     60%15-19     20%

|  |  |  |
| --- | --- | --- |
|   | a.  | 92%​ |
|   | b.  | ​92.5 |
|   | c.  | ​95% |
|   | d.  | ​97.5% |

|  |  |
| --- | --- |
| *ANSWER:* | c |
| *REFERENCES:* | 2.4 Percentiles, Percentile Ranks, and Interpolation |
| *QUESTION TYPE:* | Multiple Choice |
| *KEYWORDS:* | Bloom’s: Understand |

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|  |
| --- |
| ​Figure 2-3 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 39. For the scores shown in the accompanying stem and leaf display, Figure 2-3, what is the highest score in the distribution?​

|  |  |  |
| --- | --- | --- |
|   | a.  | ​8 |
|   | b.  | ​83 |
|   | c.  | ​84 |
|   | d.  | ​7042 |

|  |  |
| --- | --- |
| *ANSWER:* | c |
| *REFERENCES:* | 2.5 Stem and Leaf Displays |
| *QUESTION TYPE:* | Multiple Choice |
| *PREFACE NAME:* | Figure 2-3 |
| *KEYWORDS:* | Bloom’s: Understand |

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|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 40. If the following scores were placed in a stem and leaf display, how many leaves would be associated with a stem of 6?​Scores: 26, 45, 62, 11, 21, 55, 6664, 55, 46, 38, 41, 27, 2936, 51, 32, 25, 34, 44, 59​

|  |  |  |
| --- | --- | --- |
|   | a.  | ​1 |
|   | b.  | ​2 |
|   | c.  | ​3 |
|   | d.  | ​4 |

|  |  |
| --- | --- |
| *ANSWER:* | c |
| *REFERENCES:* | Stem and Leaf Displays |
| *QUESTION TYPE:* | Multiple Choice |
| *KEYWORDS:* | Bloom’s: Understand |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 41. A researcher surveys a sample of n = 200 college students and asks each person to identify his or her favorite movie from the past year. If the data were organized in a frequency distribution table, the first column would be a list of movies.​

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

|  |  |
| --- | --- |
| *ANSWER:* | True |
| *REFERENCES:* | 2. 1 Frequency Distributions and Frequency Distribution Tables |
| *QUESTION TYPE:* | True / False |
| *KEYWORDS:* | Bloom’s: Apply |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 42. A group of quiz scores ranges from 3 to 10, but no student had a score of X = 5. If the scores are put in a frequency distribution table, X = 5 would not be listed in the X column.​

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

|  |  |
| --- | --- |
| *ANSWER:* | False |
| *REFERENCES:* | 2. 1 Frequency Distributions and Frequency Distribution Tables |
| *QUESTION TYPE:* | True / False |
| *KEYWORDS:* | Bloom’s: Apply |

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| 43. It is customary to list the score categories in a frequency distribution from the highest down to the lowest.​

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

|  |  |
| --- | --- |
| *ANSWER:* | True |
| *REFERENCES:* | 2. 1 Frequency Distributions and Frequency Distribution Tables |
| *QUESTION TYPE:* | True / False |
| *KEYWORDS:* | Bloom’s: Understand |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 44. There is a total of n = 5 scores in the distribution shown in the following table.​X         f 5          24          83          52          31          2

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

|  |  |
| --- | --- |
| *ANSWER:* | False |
| *REFERENCES:* | 2. 1 Frequency Distributions and Frequency Distribution Tables |
| *QUESTION TYPE:* | True / False |
| *KEYWORDS:* | Bloom’s: Understand |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 45. For the following distribution of scores, 20% of the individuals have scores of X = 1.​X         f 5          24          83          52          31          2

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

|  |  |
| --- | --- |
| *ANSWER:* | False |
| *REFERENCES:* | 2. 1 Frequency Distributions and Frequency Distribution Tables |
| *QUESTION TYPE:* | True / False |
| *KEYWORDS:* | Bloom’s: Understand |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 46. For the following distribution of scores, SX = 18.​X         f 4          13          22          31          2

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

|  |  |
| --- | --- |
| *ANSWER:* | True |
| *REFERENCES:* | 2. 1 Frequency Distributions and Frequency Distribution Tables |
| *QUESTION TYPE:* | True / False |
| *KEYWORDS:* | Bloom’s: Understand |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 47. For the following distribution of scores, SX2 = 92.​X         f 4          13          22          31          2

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

|  |  |
| --- | --- |
| *ANSWER:* | False |
| *REFERENCES:* | 2. 1 Frequency Distributions and Frequency Distribution Tables |
| *QUESTION TYPE:* | True / False |
| *KEYWORDS:* | Bloom’s: Understand |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 48. A grouped frequency distribution table lists one interval as, 20-29. The width of this interval is 9 points.

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

|  |  |
| --- | --- |
| *ANSWER:* | False |
| *REFERENCES:* | 2.2 Grouped Frequency Distribution Tables |
| *QUESTION TYPE:* | True / False |
| *KEYWORDS:* | Bloom’s: Understand |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 49. In a grouped frequency distribution table, one interval is identified as 30-34. This interval has a width of 5 points.

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

|  |  |
| --- | --- |
| *ANSWER:* | True |
| *REFERENCES:* | 2.2 Grouped Frequency Distribution Tables |
| *QUESTION TYPE:* | True / False |
| *KEYWORDS:* | Understand |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 50. If a set of scores covers a range of 80 points, the grouped frequency table should use an interval width of 8 points.

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

|  |  |
| --- | --- |
| *ANSWER:* | False |
| *REFERENCES:* | 2.2 Grouped Frequency Distribution Tables |
| *QUESTION TYPE:* | True / False |
| *KEYWORDS:* | Bloom’s: Understand |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 51. A set of scores ranges from X = 18 to X= 91. If the scores are put in a grouped frequency distribution table with an interval width of 10 points, the top interval would be 91-100.​

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

|  |  |
| --- | --- |
| *ANSWER:* | False |
| *REFERENCES:* | 2.2 Grouped Frequency Distribution Tables |
| *QUESTION TYPE:* | True / False |
| *KEYWORDS:* | Bloom’s: Understand |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 52. In a grouped frequency distribution table, the top value in each class interval should be a multiple of the interval width.​

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

|  |  |
| --- | --- |
| *ANSWER:* | False |
| *REFERENCES:* | 2.2 Grouped Frequency Distribution Tables |
| *QUESTION TYPE:* | True / False |
| *KEYWORDS:* | Bloom’s: Remember |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 53. A set of scores ranges from a low of X = 18 to a high of X = 98. If the scores are put in a grouped frequency distribution table with an interval width of 10 points, the bottom interval should be 10-19.​

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

|  |  |
| --- | --- |
| *ANSWER:* | True |
| *REFERENCES:* | 2.2 Grouped Frequency Distribution Tables |
| *QUESTION TYPE:* | True / False |
| *KEYWORDS:* | Bloom’s: Understand |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 54. A grouped frequency distribution table does not provide enough information to obtain a complete listing of the original set of scores.

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

|  |  |
| --- | --- |
| *ANSWER:* | True |
| *REFERENCES:* | 2.2 Grouped Frequency Distribution Tables |
| *QUESTION TYPE:* | True / False |
| *KEYWORDS:* | Bloom’s: Understand |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 55. For the following distribution, seven people have scores greater than X = 14.​X                     f20-24               215-19              510-14               45-9                   1

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

|  |  |
| --- | --- |
| *ANSWER:* | True |
| *REFERENCES:* | 2.2 Grouped Frequency Distribution Tables |
| *QUESTION TYPE:* | True / False |
| *KEYWORDS:* | Bloom’s: Understand |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 56. In the following distribution, the scores are grouped into class intervals that are each 5 points wide.​X                     f20-24               215-19              510-14               45-9                   1

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

|  |  |
| --- | --- |
| *ANSWER:* | True |
| *REFERENCES:* | 2.2 Grouped Frequency Distribution Tables |
| *QUESTION TYPE:* | True / False |
| *KEYWORDS:* | Bloom’s: Understand |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 57. A professor records the number of students who are absent each day for the semester.  Because this is a numeric, discrete variable, a bar graph should be used to show the frequency distribution.​

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

|  |  |
| --- | --- |
| *ANSWER:* | False |
| *REFERENCES:* | 2.3 Frequency Distribution Graphs |
| *QUESTION TYPE:* | True / False |
| *KEYWORDS:* | Bloom’s: Apply |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 58. A researcher surveys a sample of n = 200 college students and asks each person to identify his or her favorite movie from the past year.  If the results are presented in a frequency distribution graph, the researcher should use a bar graph.​

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

|  |  |
| --- | --- |
| *ANSWER:* | True |
| *REFERENCES:* | 2.3 Frequency Distribution Graphs |
| *QUESTION TYPE:* | True / False |
| *KEYWORDS:* | Bloom’s: Apply |

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|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 59. If it is appropriate to present a distribution of scores in a polygon, then it would also be appropriate to present the scores in a bar graph.​

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

|  |  |
| --- | --- |
| *ANSWER:* | False |
| *REFERENCES:* | 2.3 Frequency Distribution Graphs |
| *QUESTION TYPE:* | True / False |
| *KEYWORDS:* | Bloom’s: Understand |

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|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 60. A histogram is constructed so that adjacent bars touch.​

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

|  |  |
| --- | --- |
| *ANSWER:* | True |
| *REFERENCES:* | 2.3 Frequency Distribution Graphs |
| *QUESTION TYPE:* | True / False |
| *KEYWORDS:* | Bloom’s: Remember |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 61. The normal distribution is an example of a symmetrical distribution.

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

|  |  |
| --- | --- |
| *ANSWER:* | True |
| *REFERENCES:* | 2.3 Frequency Distribution Graphs |
| *QUESTION TYPE:* | True / False |
| *KEYWORDS:* | Bloom’s: Remember |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 62. In February in New York, the daily high temperatures are typically low with only a few relatively warm days.  A frequency distribution showing the daily high temperatures would probably form a negatively skewed distribution.​

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

|  |  |
| --- | --- |
| *ANSWER:* | False |
| *REFERENCES:* | 2.3 Frequency Distribution Graphs |
| *QUESTION TYPE:* | True / False |
| *KEYWORDS:* | Bloom’s: Apply |

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| 63. The scores for a very easy exam would probably form a positively skewed distribution.​

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

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| *ANSWER:* | False |
| *REFERENCES:* | 2. 3 Frequency Distribution Graphs |
| *QUESTION TYPE:* | True / False |
| *KEYWORDS:* | Bloom’s: Apply |

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| 64. If a set of exam scores forms a negatively skewed distribution, it suggests that the majority of the students did not score well on the exam.​

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

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| *ANSWER:* | False |
| *REFERENCES:* | 2. 3 Frequency Distribution Graphs |
| *QUESTION TYPE:* | True / False |
| *KEYWORDS:* | Bloom’s: Apply |

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| 65. A score equal to the 5th percentile is one of the highest scores in the distribution.​

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

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| --- | --- |
| *ANSWER:* | False |
| *REFERENCES:* | 2.4 Percentiles, Percentile Ranks, and Interpolation |
| *QUESTION TYPE:* | True / False |
| *KEYWORDS:* | Bloom’s: Understand |

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| 66. For the distribution in the following table, the 80th percentile is X = 24.​X                c%25-29     100%20-24       80%15-19       20%

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

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| *ANSWER:* | False |
| *REFERENCES:* | 2.4 Percentiles, Percentile Ranks, and Interpolation |
| *QUESTION TYPE:* | True / False |
| *KEYWORDS:* | Bloom’s: Understand |

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| 67. For the distribution in the following table, the percentile rank for X = 19.5 is 20%.​X               c% 25-29    100%20-24      80%15-19      20%

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

|  |  |
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| *ANSWER:* | True |
| *REFERENCES:* | 2.4 Percentiles, Percentile Ranks, and Interpolation |
| *QUESTION TYPE:* | True / False |
| *KEYWORDS:* | Bloom’s: Understand |

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| 68. For the distribution in the following table, the 90th percentile is X = 27.5.​X              c%         25-29    100%20-24      80%15-19      20%

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

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| *ANSWER:* | False |
| *REFERENCES:* | Percentiles, Percentile Ranks, and Interpolation |
| *QUESTION TYPE:* | True / False |
| *KEYWORDS:* | Bloom’s: Understand |

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| 69. For the distribution in the following table, the percentile rank for X = 25 is 82%.​X               c%25-29    100%20-24      80%15-19      20%

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

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| *ANSWER:* | True |
| *REFERENCES:* | 2.4 Percentiles, Percentile Ranks, and Interpolation |
| *QUESTION TYPE:* | True / False |
| *KEYWORDS:* | Bloom’s: Understand |

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| 70. A stem and leaf display does not provide enough information to obtain a complete listing of the original set of scores.​

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

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| *ANSWER:* | False |
| *REFERENCES:* | 2.5 Stem and Leaf Displays |
| *QUESTION TYPE:* | True / False |
| *KEYWORDS:* | Bloom’s: Understand |

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| 71. Find each value requested for the set of scores in the following frequency distribution table.a.   n                                         Score    f          b.   ΣX                                         5      1c.   ΣX2                                       4      2                                                    3      3                                                   2       5                                                   1       2

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| --- | --- |
| *ANSWER:* | a.  n = 13b.  ΣX = 34c.  ΣX2 = 106​ |
| *REFERENCES:* | 2. 1 Frequency Distributions and Frequency Distribution Tables |
| *QUESTION TYPE:* | Essay |
| *KEYWORDS:* | Bloom’s: Understand |

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| 72. Briefly explain what information is available in a regular frequency distribution table that is not available in a grouped table.​

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| *ANSWER:* | A regular table identifies each individual score exactly. However, in a grouped table, you simply know that an individual score is located in a particular interval, but you do not know its exact value. |
| *REFERENCES:* | 2.2 Grouped Frequency Distribution Tables |
| *QUESTION TYPE:* | Essay |
| *KEYWORDS:* | Bloom’s: Understand |

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| 73. For the following scores:​a.  Construct a frequency distribution table.b.  Sketch a histogram of the frequency distribution.            6, 4, 3, 5, 4, 2, 4            5, 4, 6, 1, 4, 5, 2

|  |  |
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| *ANSWER:* | ​ |
| *REFERENCES:* | 2.3 Frequency Distribution Graphs |
| *QUESTION TYPE:* | Essay |
| *KEYWORDS:* | Bloom’s: Understand |

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| 74. For the distribution shown in the following table:a.  Find the percentile rank for X = 14.5.                                 X           f    cf        c%           b.  Find the 60th percentile.                                                     25-29     4    25   100%c.  Find the percentile rank for X = 11.                                   20-24     6    21     84%d.  Find the 66th percentile.                                                     15-19     7    15     60%                                                                                                10-14     5      8     32%                                                                                                    5-9     3      3     12%

|  |  |
| --- | --- |
| *ANSWER:* | a.  32%b.  X = 19.5c.  18%d.  X = 20.75 |
| *REFERENCES:* | 2.4 Percentiles, Percentile Ranks, and Interpolation |
| *QUESTION TYPE:* | Essay |
| *KEYWORDS:* | Bloom’s: Understand |

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| 75. Construct a stem and leaf display for the following scores.​30, 23, 58, 28, 35, 67, 27, 42, 46, 3551, 33, 18, 33, 25, 38, 48, 36, 31, 39

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| --- | --- |
| *ANSWER:* | 6 | 75 | 184 | 8263 | 0335861592 | 38571 | 8                                         Key: 6|7 = 67 |
| *REFERENCES:* | 2.5 Stem and Leaf Displays |
| *QUESTION TYPE:* | Essay |
| *KEYWORDS:* | Bloom’s: Understand |

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