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| 1. What is the total number of scores for the distribution shown in the following table?​  X    f  4    3  3    5  2    4  1    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    6  4    5  3    5  2    3  1    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    6  4    5  3    5  2    3  1    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    6  4    5  3    5  2    3  1    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   3  85-89   4  80-84   5  75-79   2  70-74   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   3  85-89   4  80-84   5  75-79   2  70-74   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         f  20-25   2  15-19   5  10-14   4  5-9       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   2  15-19   5  10-14   4  5-9       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         f  20-25   2  15-19   5  10-14   4  5-9       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         f  20-24   2  5-19     5  10-14   4  5-9       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         f  20-25   2  15-19   5  10-14   4  5-9       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 | |

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| 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 | |

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| Figure 2.1 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| 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 | |

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| 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 | |

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| 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 | |

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| 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 | |

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| 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 | |

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| 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 | |

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| Figure 2-2 |

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| 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 | |

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| 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 | |

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| 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 | |

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| 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 |

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| 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, 66  64, 55, 46, 38, 41, 27, 29  36, 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          2  4          8  3          5  2          3  1          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          2  4          8  3          5  2          3  1          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          1  3          2  2          3  1          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          1  3          2  2          3  1          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                     f  20-24               2  15-19              5  10-14               4  5-9                   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                     f  20-24               2  15-19              5  10-14               4  5-9                   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.​   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *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.​   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *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.​   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *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%   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *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%   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *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%   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *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%   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *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.​   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *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      1  c.   ΣX2                                       4      2                                                      3      3                                                     2       5                                                     1       2   |  |  | | --- | --- | | *ANSWER:* | a.  n = 13  b.  ΣX = 34  c.  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.​   |  |  | | --- | --- | | *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   |  |  | | --- | --- | | *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 = 19.5  c.  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, 35  51, 33, 18, 33, 25, 38, 48, 36, 31, 39   |  |  | | --- | --- | | *ANSWER:* | 6 | 7  5 | 18  4 | 826  3 | 033586159  2 | 3857  1 | 8                                         Key: 6|7 = 67 | | *REFERENCES:* | 2.5 Stem and Leaf Displays | | *QUESTION TYPE:* | Essay | | *KEYWORDS:* | Bloom’s: Understand | |