

1. What is the total number of scores for the distribution shown in the following table?

<u>X</u>	<u>f</u>
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

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

3. For the following frequency distribution of quiz scores, how many individuals took the quiz?

<u>X</u>	<u>f</u>
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

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?

<u>X</u>	<u>f</u>
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

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

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

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

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

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

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

11. For the following distribution, how many people had scores greater than  $X = 14$ ?

<u>X</u>	<u>f</u>
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

12. For the following distribution, what is the width of each class interval?

<u>X</u>	<u>f</u>
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

13. If the following continuous distribution was shown in a histogram, the bar above the 15-19 interval would reach from \_\_\_\_\_ to \_\_\_\_\_.

<u>X</u>	<u>f</u>
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

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

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

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

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

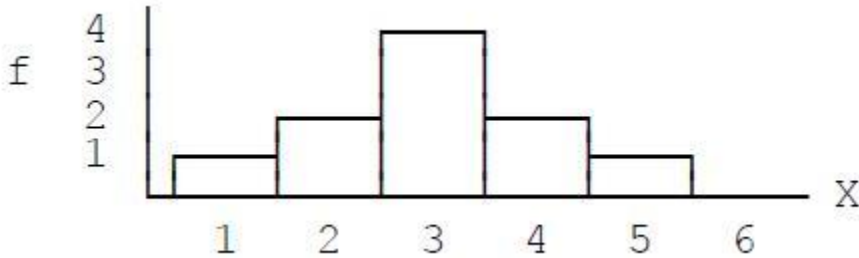


Figure 2.1

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  $\Sigma X$ ?

- 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

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?
- nominal
  - nominal or ordinal
  - ratio
  - interval or ratio

**ANSWER:** b

**REFERENCES:** 2.3 Frequency Distribution Graphs

**QUESTION TYPE:** Multiple Choice

**KEYWORDS:** Bloom's: Understand

23. The normal distribution is \_\_\_\_.
- asymmetric
  - skewed to the right
  - skewed to the left
  - 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?
- Most of the students had relatively high scores.
  - Most of the students had relatively low scores.
  - About 50% of the students had high scores and the rest had low scores.
  - It is not possible to 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?
- symmetrical
  - positively skewed
  - negatively skewed
  - normal

**ANSWER:** b

**REFERENCES:** 2.3 Frequency Distribution Graphs

**QUESTION TYPE:** Multiple Choice

**KEYWORDS:** Bloom's: Remember

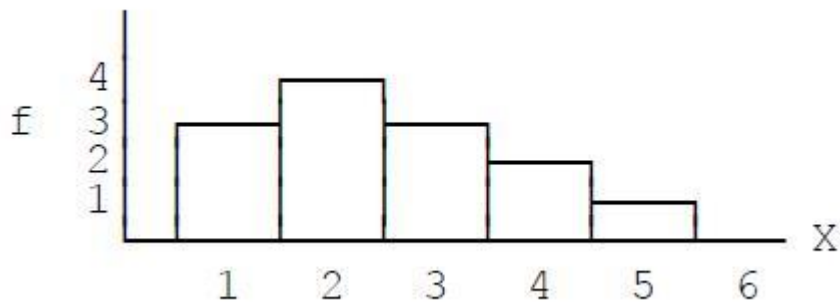


Figure 2-2

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

- positively skewed
- negatively skewed
- symmetrical
- 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).

- 1; 1
- 1; 2
- 2; 1
- 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?

- symmetrical
- positively skewed
- negatively skewed
- 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 \_\_\_\_.

- on the right side of the distribution
- on the left side of the distribution
- 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

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

31. For the distribution in the following table, what is the 50<sup>th</sup> percentile?

<u>X</u>	<u>c%</u>
9	100%
8	80%
7	50%
<u>6</u>	<u>25%</u>

- 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

32. For the distribution in the following table, what is the percentile rank for X = 8.5?

<u>X</u>	<u>c%</u>
9	100%
8	80%
7	50%
<u>6</u>	<u>25%</u>

- 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

33. For the distribution in the following table, what is the 90<sup>th</sup> percentile?

<u>X</u>	<u>c%</u>
9	100%
8	80%
7	50%
<u>6</u>	<u>25%</u>

- 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

34. For the distribution in the following table, what is the percentile rank for  $X = 7$ ?

<u>X</u>	<u>c%</u>
9	100%
8	80%
7	50%
<u>6</u>	<u>25%</u>

- 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

35. For the distribution in the following table, what is the 90<sup>th</sup> percentile?

<u>X</u>	<u>c%</u>
30-34	100%
25-29	90%
20-24	60%
<u>15-19</u>	<u>20%</u>

- 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

36. For the distribution in the following table, what is the percentile rank for  $X = 24.5$ ?

<u>X</u>	<u>c%</u>
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

37. For the distribution in the following table, what is the 50<sup>th</sup> percentile?

<u>X</u>	<u>c%</u>
50-59	100%
40-49	90%
30-39	60%
<u>20-29</u>	<u>20%</u>

- 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

38. For the distribution in the following table, what is the percentile rank for X = 32?

<u>X</u>	<u>c%</u>
30-34	100%
25-29	90%
20-24	60%
<u>15-19</u>	<u>20%</u>

- 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

8		314
7		945
6		7042
5		68
4		14

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

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

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

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

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

44. There is a total of  $n = 5$  scores in the distribution shown in the following table.

<u>X</u>	<u>f</u>
5	2
4	8
3	5
2	3
<u>1</u>	<u>2</u>

a. True

b. False

ANSWER: False

REFERENCES: 2. 1 Frequency Distributions and Frequency Distribution Tables

QUESTION TYPE: True / False

KEYWORDS: Bloom's: Understand

45. For the following distribution of scores, 20% of the individuals have scores of  $X = 1$ .

<u>X</u>	<u>f</u>
5	2
4	8
3	5
2	3
<u>1</u>	<u>2</u>

a. True

b. False

ANSWER: False

REFERENCES: 2. 1 Frequency Distributions and Frequency Distribution Tables

QUESTION TYPE: True / False

KEYWORDS: Bloom's: Understand

46. For the following distribution of scores,  $SX = 18$ .

<u>X</u>	<u>f</u>
4	1
3	2
2	3
<u>1</u>	<u>2</u>

a. True

b. False

ANSWER: True

REFERENCES: 2. 1 Frequency Distributions and Frequency Distribution Tables

QUESTION TYPE: True / False

KEYWORDS: Bloom's: Understand

47. For the following distribution of scores,  $SX^2 = 92$ .

<u>X</u>	<u>f</u>
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

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

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

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

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

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

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

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

55. For the following distribution, seven people have scores greater than  $X = 14$ .

<u>X</u>	<u>f</u>
20-24	2
15-19	5
10-14	4
<u>5-9</u>	<u>1</u>

- a. True
- b. False

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

56. In the following distribution, the scores are grouped into class intervals that are each 5 points wide.

<u>X</u>	<u>f</u>
20-24	2
15-19	5
10-14	4
<u>5-9</u>	<u>1</u>

- a. True
- b. False

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

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

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

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

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

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

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

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

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

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

66. For the distribution in the following table, the 80th percentile is  $X = 24$ .

<u>X</u>	<u>c%</u>
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

67. For the distribution in the following table, the percentile rank for  $X = 19.5$  is 20%.

<u>X</u>	<u>c%</u>
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

68. For the distribution in the following table, the 90th percentile is  $X = 27.5$ .

<u>X</u>	<u>c%</u>
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

69. For the distribution in the following table, the percentile rank for  $X = 25$  is 82%.

<u>X</u>	<u>c%</u>
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

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

71. Find each value requested for the set of scores in the following frequency distribution table.

	<u>Score</u>	<u>f</u>
a. n		
b. $\Sigma X$	5	1
c. $\Sigma X^2$	4	2
	3	3
	2	5
	1	2

ANSWER: a.  $n = 13$

b.  $\Sigma X = 34$

c.  $\Sigma X^2 = 106$

REFERENCES: 2.1 Frequency Distributions and Frequency Distribution Tables

QUESTION TYPE: Essay

KEYWORDS: Bloom's: Understand

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

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

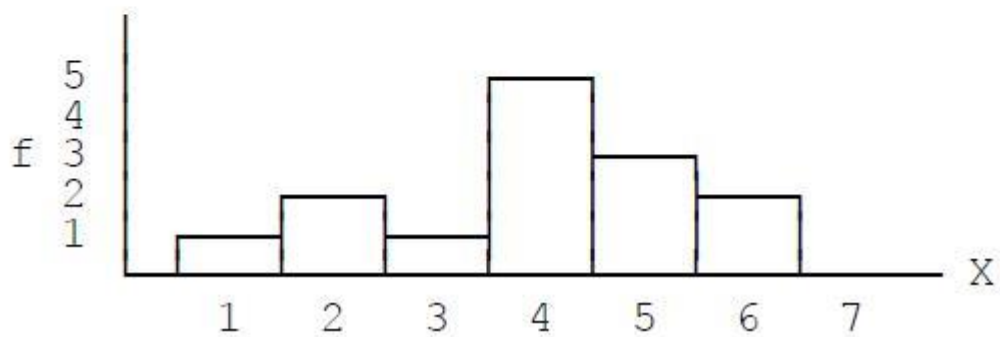
5, 4, 6, 1, 4, 5, 2

ANSWER:

a.

<u>X</u>	<u>f</u>
6	2
5	3
4	5
3	1
2	2
1	1

b.



REFERENCES: 2.3 Frequency Distribution Graphs

QUESTION TYPE: Essay

KEYWORDS: Bloom's: Understand

74. For the distribution shown in the following table:

a. Find the percentile rank for  $X = 14.5$ .

b. Find the 60<sup>th</sup> percentile.

c. Find the percentile rank for  $X = 11$ .

d. Find the 66<sup>th</sup> percentile.

<u>X</u>	<u>f</u>	<u>cf</u>	<u>c%</u>
25-29	4	25	100%
20-24	6	21	84%
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

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