Chapter 2
Examining Data: Tables and Figures

REASONS FOR EXAMINING DATA

1. Which of these is a reason why researchers examine the data they have collected?
    a. to test their research hypotheses
    b. to calculate measures of central tendency and variability
    c. to detect outliers
    d. to draw inferences about populations

Ans: C
Learning Objective: 2-1
Cognitive Domain: Knowledge
Answer Location: Why Examine Data
Question Type: MC

2. Which of these is NOT a reason why researchers examine data they have collected?
    a. to evaluate their research methodology
    b. to assess the shape of the distribution of scores
    c. to detect outliers
    d. to prove their research hypotheses

Ans: D
Learning Objective: 2-1
Cognitive Domain: Application
Answer Location: Why Examine Data
Question Type: MC

3. Which of these is NOT a reason why researchers examine data they have collected?
    a. to evaluate their research methodology
    b. to assess the shape of the distribution of scores
    c. to detect outliers
    d. to draw inferences about populations

Ans: D
Learning Objective: 2-1
Cognitive Domain: Application
Answer Location: Why Examine Data
Question Type: MC

4. Which of these is a reason why researchers examine data by creating tables and figures?
    a. to prove their research hypotheses
    b. to define their independent and dependent variables
    c. to detect outliers
    d. to draw conclusions about populations

Ans: C
Learning Objective: 2-1
Cognitive Domain: Knowledge
Answer Location: Examining Data Using Figures
Question Type: MC

5. Which of these is a reason why researchers examine data by creating tables and figures?
    a. To test hypotheses about populations
    b. To evaluate their research methodology
    c. To determine whether their research hypotheses are skewed
    d. To assess their understanding of the research literature
Ans: B
Learning Objective: 2-1
Cognitive Domain: Knowledge
Answer Location: Why Examine Data
Question Type: MC

6. Which of these is NOT a reason why researchers examine data by creating tables and figures?
    a. To identify outliers
    b. To get an initial look at their data
    c. To evaluate their research methodology
    d. To prove their research hypotheses
Ans: D
Learning Objective: 2-1
Cognitive Domain: Application
Answer Location: Examining Data Using Figures
Question Type: MC

7. Which of these is a reason why researchers examine data by creating tables and figures?
    a. To calculate inferential statistics
    b. To defend their research hypotheses
    c. To gain an initial understanding of their data
    d. To identify their independent and dependent variables
Ans: C
Learning Objective: 2-1
Cognitive Domain: Knowledge
Answer Location: Examining Data Using Figures
Question Type: MC

8. Which of these is a reason why researchers examine data by creating tables and figures?
    a. To test their research hypotheses
    b. To define their population
    c. To figure out which variable is the independent variable
    d. To understand the shape of the distribution
Ans: D
Learning Objective: 2-1
Cognitive Domain: Knowledge
Answer Location: Examining Data Using Figures
Question Type: MC

9. Which of these is a reason why researchers examine data by creating tables and figures?
    a. To prove a research hypothesis
    b. To determine whether the population is skewed
    c. To identify the modality of a distribution
    d. To decide whether a variable is measured at the interval or ratio scale
Ans: C

Learning Objective: 2-1
Cognitive Domain: Knowledge
Answer Location: Examining Data Using Figures
Question Type: MC

SELECTING APPROPRIATE FIGURE BASED ON LEVEL OF MEASUREMENT

10. On the first day of class, students are asked to describe their plans after college (grad school, work, etc.); a _____ would be used to illustrate their responses to this question.
    a. frequency polygon
    b. normal distribution
    c. histogram
    d. bar chart
Ans: D
Learning Objective: 2-4
Cognitive Domain: Analysis
Answer Location: Displaying nominal and ordinal variables: bar charts and pie charts
Question Type: MC

11. You would use a _____ to illustrate data for the variable "Number of brothers".
    a. bar chart
    b. histogram
    c. frequency polygon
    d. pie chart
Ans: B
Learning Objective: 2-4
Cognitive Domain: Application
Answer Location: Displaying interval and ratio variables: histograms and frequency polygons
Question Type: MC

12. You ask people to indicate the number of television sets in their residence (home, apartment, etc.). You would use a _____ to illustrate the data for this variable.
    a. frequency polygon
    b. histogram
    c. bar chart
    d. pie chart
Ans: B
Learning Objective: 2-4
Cognitive Domain: Application
Answer Location: Displaying interval and ratio variables: histograms and frequency polygons
Question Type: MC

13. You would use a _____ to illustrate data for the variable "Number of cars per driver".
    a. bar chart
    b. histogram
    c. frequency polygon
Ans: B
Learning Objective: 2-4
Cognitive Domain: Application

Answer Location: Displaying interval and ratio variables: histograms and frequency polygons
Question Type: MC

14. You would use a _____ to illustrate data for the variable "Cost per vehicle".
    a. pie graph
    b. bar chart
    c. histogram
Ans: C
Learning Objective: 2-4
Cognitive Domain: Application
Answer Location: Displaying interval and ratio variables: histograms and frequency polygons
Question Type: MC

15. You would use a _____ to illustrate data for a variable measured at the ____ scale of measurement.
    a. pie graph; interval
    b. frequency polygon; nominal
    c. histogram; ordinal
    d. bar chart; nominal
Ans: D
Learning Objective: 2-4
Cognitive Domain: Comprehension
Answer Location: Displaying nominal and ordinal variables: bar charts and pie charts
Question Type: MC

16. You would use a _____ to illustrate data for a variable measured at the ____ scale of measurement.
    a. histogram; interval
    b. frequency polygon; ordinal
    c. pie graph; ratio
    d. bar chart; ratio
Ans: A
Learning Objective: 2-4
Cognitive Domain: Comprehension
Answer Location: Displaying interval and ratio variables: histograms and frequency polygons
Question Type: MC

17. You would use a _____ to illustrate the data for a variable measured at the ____ scale of measurement.
    a. pie graph; interval
    b. frequency polygon; ratio
    c. histogram; nominal
    d. bar chart; ratio
Ans: B
Learning Objective: 2-4
Cognitive Domain: Comprehension
Answer Location: Displaying interval and ratio variables: histograms and frequency polygons
Question Type: MC

18. For five of her lectures, an instructor determines the number of students looking at Facebook or Twitter pages. She would use a _____ to illustrate this data because this variable is measured at the ____ scale of measurement.

a. pie graph; interval
b. frequency polygon; nominal
c. histogram; ratio
d. bar chart; ordinal

Ans: C
Learning Objective: 2-4
Cognitive Domain: Comprehension
Answer Location: Displaying interval and ratio variables: histograms and frequency polygons
Question Type: MC

FREQUENCY DISTRIBUTION TABLES AND CORRESPONDING FIGURES

NOTE: Questions 19-20 are based on the following frequency distribution table:

Employment status	*f*	%	Cum %
Full-time	20	17.2%	17.2%
Part-time	_____	_____	_____
Not employed	42	36.2%	100.0%
Total	116	100.0%	

19. Filling in the blanks in the above frequency distribution table, ____ of the sample work part-time; this is ____ of the sample.
a. 54; 63.8%
b. 62; 53.8%
c. 116; 63.8%
d. 54; 46.6%
e. Cannot be determined with information provided

Ans: D
Learning Objective: 2-2
Cognitive Domain: Analysis
Answer Location: What percentage of the sample has each value of the variable?
Question Type: MC

20. You would use a _____ to illustrate the data in the above frequency distribution table.
a. pie graph
b. frequency polygon
c. histogram

Ans: A
Learning Objective: 2-4
Cognitive Domain: Comprehension
Answer Location: Displaying nominal and ordinal variables: bar charts and pie charts
Question Type: MC

NOTE: Questions 21-22 are based on the following frequency distribution table:

Marital status	*f*	%
Single	20	_____
Married	___	_____

Separated/divorced	42	_____
Total	116	100.0%

21. Filling in the blanks in the above frequency distribution table, ____ of the sample are married; this is ____ of the sample.
    a. 54; 46.6%
    b. 62; 53.8%
    c. 116; 63.8%
    d. 54; 63.8%
    e. Cannot be determined with information provided

Ans: A
Learning Objective: 2-2
Cognitive Domain: Analysis
Answer Location: What percentage of the sample has each value of the variable?
Question Type: MC

22. You would use a _____ to illustrate the data in the above frequency distribution table.
    a. pie graph
    b. frequency polygon
    c. histogram

Ans: A
Learning Objective: 2-4
Cognitive Domain: Comprehension
Answer Location: Displaying nominal and ordinal variables: bar charts and pie charts
Question Type: MC

NOTE: Questions 23-24 are based on the following frequency distribution table:

# hours worked per week	*f*	%
> 40	7	_____
31-40	15	_____
21-30	19	_____
11-20	29	_____
0-10	_____	_____
Total	86	100.0%

23. Filling in the blanks in the above frequency distribution table, ____ of this sample work 0-10 hours per week; this is ____ of the sample.
    a. 16; .19%
    b. 70; 81.8%
    c. 16; 18.6%
    d. Cannot be determined with information provided

Ans: C
Learning Objective: 2-2
Cognitive Domain: Analysis
Answer Location: What percentage of the sample has each value of the variable?
Question Type: MC

24. You would use a _____ to illustrate the data in the above frequency distribution table.
    a. pie graph
    b. bar chart
    c. histogram
Ans: C
Learning Objective: 2-4
Cognitive Domain: Comprehension
Answer Location: Displaying interval and ratio variables: histograms and frequency polygons
Question Type: MC

NOTE: Questions 25-26 are based on the following frequency distribution table:

Employment status	*f*	%
Full-time	20	17.2%
Part-time	42	36.2%
Not employed	_____	_____
Total	116	100.0%

25. Filling in the blanks in the above frequency distribution table, ____ of this sample are not employed; this is ____ of the sample.
    a. 54; 63.8%
    b. 62; 53.8%
    c. 54; 46.6%
    d. 116; 63.8%
e. Cannot be determined with information provided
Ans: C
Learning Objective: 2-2
Cognitive Domain: Analysis
Answer Location: What percentage of the sample has each value of the variable?
Question Type: MC

26. You would use a _____ to illustrate the data in the above frequency distribution table because the variable is measured at the ____ scale of measurement.
    a. pie graph; ratio
    b. frequency polygon; nominal
    c. histogram; ordinal
    d. bar chart; nominal
Ans: D
Learning Objective: 2-4
Cognitive Domain: Comprehension
Answer Location: Displaying nominal and ordinal variables: bar charts and pie charts
Question Type: MC

NOTE: Questions 27-28 are based on the following frequency distribution table:

Annual salary	*f*	%
> $80000	7	_____
$60000 - $80000	15	_____
$40000 - $60000	19	_____

$20000 - $40000		29	_____
$0 - $20000		_____	_____
Total	86	100.0%	

27. Filling in the blanks in the above frequency distribution table, ____ of this sample make between $0 and $20000 a year; this is ____ of the sample.
    a. 16; .19%
    b. 70; 81.8%
    c. 16; 18.6%
    d. Cannot be determined with information provided

Ans: C
Learning Objective: 2-2
Cognitive Domain: Analysis
Answer Location: What percentage of the sample has each value of the variable?
Question Type: MC

28. You would use a _____ to illustrate the data in the above frequency distribution table.
    a. pie graph
    b. bar chart
    c. histogram

Ans: C
Learning Objective: 2-4
Cognitive Domain: Comprehension
Answer Location: Displaying interval and ratio variables: histograms and frequency polygons
Question Type: MC

NOTE: Questions 29-30 are based on the following frequency distribution table:

Area code	*f*	%
408	18	_____
415	6	_____
510	10	_____
650	25	_____
925	_____	_____
Total	69	100.0%

29. Filling in the blanks in the above frequency distribution table, ____ of this sample live in the 925 area code; this is ____ of the sample.
    a. 10; .15%
    b. 15; 10.0%
    c. 10; 14.5%
    d. Cannot be determined with information provided

Ans: C
Learning Objective: 2-2
Cognitive Domain: Analysis
Answer Location: What percentage of the sample has each value of the variable?
Question Type: MC

30. You would use a _____ to illustrate the data in the above frequency distribution table.
    a. pie graph or frequency polygon
    b. bar chart or histogram
    c. histogram or frequency polygon
    d. bar chart or pie graph

Ans: D
Learning Objective: 2-4
Cognitive Domain: Comprehension
Answer Location: Displaying nominal and ordinal variables: bar charts and pie charts
Question Type: MC

NOTE: Questions 31-32 are based on the following frequency distribution table:

Candidate	*f*	%
Candidate A	48	39.0%
Candidate B	7	_____
Candidate C	_____	_____
Total	123	100.0%

31. Filling in the blanks in the above frequency distribution table, ____ of the students predicted Candidate C will win the election; this is ____ of the sample.
    a. 68; .55%
    b. 68; 55.3%
    c. 75; 61.0%
    d. Cannot be determined with information provided

Ans: B
Learning Objective: 2-2
Cognitive Domain: Analysis
Answer Location: What percentage of the sample has each value of the variable?
Question Type: MC

32. You would use either a _____ to illustrate the data in the above frequency distribution table.
    a. pie graph or frequency polygon
    b. bar chart or pie graph
    c. histogram or frequency polygon
    d. bar chart or histogram

Ans: B
Learning Objective: 2-4
Cognitive Domain: Comprehension
Answer Location: Displaying nominal and ordinal variables: bar charts and pie charts
Question Type: MC

NOTE: Questions 33-34 are based on the following frequency distribution table:

SAT Math score	*f*	%
600-800	31	22.3%
401-600	56	_____
200-400	_____	_____

Total	139	100.0%

33. Filling in the blanks in the above frequency distribution table, ____ students had SAT Math scores between 200 and 400; this is ____ of the sample.
    a. 37; 40.3%
    b. 52; 37.4%
    c. 52; .37%
    d. Cannot be determined with information provided

Ans: B
Learning Objective: 2-2
Cognitive Domain: Analysis
Answer Location: What percentage of the sample has each value of the variable?
Question Type: MC

34. You would use either a _____ to illustrate the data in the above frequency distribution table.
    a. pie graph or frequency polygon
    b. bar chart or pie graph
    c. histogram or frequency polygon
    d. bar chart or histogram

Ans: C
Learning Objective: 2-4
Cognitive Domain: Comprehension
Answer Location: Displaying interval and ratio variables: histograms and frequency polygons
Question Type: MC

NOTE: Questions 35-36 are based on the following frequency distribution table:

Plans after college	*f*	%
Work full-time	29	_____
Work part-time	15	_____
Go to grad school	_____	22.1%
Not sure	_____	_____
Total	86	100.0%

35. Filling in the blanks in the above frequency distribution table, ____ students are 'not sure' of their plans after finishing college; this is ____ of the sample.
    a. 20; 23.2%
    b. 23; 26.8%
    c. 42; 48.8%
    d. Cannot be determined with information provided

Ans: B
Learning Objective: 2-2
Cognitive Domain: Analysis
Answer Location: What percentage of the sample has each value of the variable?
Question Type: MC

36. You would use a _____ to illustrate the data in the above frequency distribution table.
    a. frequency polygon

b. bar chart
c. histogram
d. none of these is correct

Ans: B
Learning Objective: 2-4
Cognitive Domain: Comprehension
Answer Location: Displaying nominal and ordinal variables: bar charts and pie charts
Question Type: MC

NOTE: Questions 37-38 are based on the following frequency distribution table:

# drinks	*f*	%
3 or less	15	13.2%
4	12	10.5%
5	21	18.4%
6	22	19.3%
7	10	8.8%
8	_____	9.6%
9 or more	_____	_____
Total	114	100.0%

37. Filling in the blanks in the above frequency distribution table, ____ people consumed 9 or more drinks; this is ____ of the sample.
a. 35; 10.5%
b. 23; 20.2%
c. 12; 30.7%
d. Cannot be determined with information provided

Ans: B
Learning Objective: 2-2
Cognitive Domain: Analysis
Answer Location: What percentage of the sample has each value of the variable?
Question Type: MC

38. You would use a _____ to illustrate the data in the above frequency distribution table.
a. pie chart
b. normal distribution
c. histogram
d. bar chart

Ans: C
Learning Objective: 2-4
Cognitive Domain: Comprehension
Answer Location: Displaying interval and ratio variables: histograms and frequency polygons
Question Type: MC

NOTE: Questions 39-40 are based on the following frequency distribution table:

Meal	*f*	%
Breakfast	8	13.6%

Lunch	31	_____
Dinner	_____	_____
Total	59	100.0%

39. Filling in the blanks in the above frequency distribution table, _____ people selected 'Dinner'; this is _____ of the sample.
    a. 20; 33.9%
    b. 20; 86.4%
    c. 39; 52.5%
    d. 59; 33.9%

Ans: A
Learning Objective: 2-2
Cognitive Domain: Analysis
Answer Location: What percentage of the sample has each value of the variable?
Question Type: MC

40. You would use a _____ to illustrate the data in the above frequency distribution table because the variable is measured at the ____ scale of measurement.
    a. frequency polygon; ordinal
    b. bar chart; nominal
    c. histogram; interval
    d. pie graph; ratio

Ans: B
Learning Objective: 2-4
Cognitive Domain: Comprehension
Answer Location: Displaying nominal and ordinal variables: bar charts and pie charts
Question Type: MC

NOTE: Questions 41-42 are based on the following frequency distribution table:

Meal	*f*	%
Breakfast	8	13.6%
Lunch	_____	_____
Dinner	20	_____
Total	59	100.0%

41. Filling in the blanks in the above frequency distribution table, _____ people selected 'Lunch'; this is _____ of the sample.

    a. 31; 52.5%
    b. 31; 86.4%
    c. 28; 47.5%
    d. 59; 52.5%

Ans: A
Learning Objective: 2-2
Cognitive Domain: Analysis
Answer Location: What percentage of the sample has each value of the variable?

Question Type: MC

42. You would use a _____ to illustrate the data in the above frequency distribution table because the variable is measured at the ____ scale of measurement.
    a. frequency polygon; ordinal
    b. bar chart; nominal
    c. histogram; interval
    d. pie graph; ratio
Ans: B
Learning Objective: 2-4
Cognitive Domain: Comprehension
Answer Location: Displaying nominal and ordinal variables: bar charts and pie charts
Question Type: MC

NOTE: Questions 43-44 are based on the following frequency distribution table:

Day of Week	*f*	%
Monday	76	13.6%
Wednesday	91	_____
Friday	_____	_____
Total	279	100.0%

43. Filling in the blanks in the above frequency distribution table, _____ people chose 'Friday'; this is _____ of the sample.
    a. 112; 40.1%
    b. 112; 72.8%
    c. 167; 32.6%
    d. 279; 40.1%
Ans: A
Learning Objective: 2-2
Cognitive Domain: Analysis
Answer Location: What percentage of the sample has each value of the variable?
Question Type: MC

44. You would use a _____ to illustrate the data in the above frequency distribution table because the variable is measured at the ____ scale of measurement.
    a. frequency polygon; ordinal
    b. bar chart; nominal
    c. histogram; interval
    d. pie graph; ratio
Ans: B
Learning Objective: 2-4
Cognitive Domain: Comprehension
Answer Location: Displaying nominal and ordinal variables: bar charts and pie charts
Question Type: MC

NOTE: Questions 45-46 are based on the following frequency distribution table:

Day of Week	*f*	%
Monday	76	13.6%
Wednesday	_____	_____
Friday	112	_____
Total	279	100.0%

45. Filling in the blanks in the above frequency distribution table, _____ people chose 'Wednesday'; this is _____ of the sample.
    a. 91; 32.6%
    b. 91; 72.8%
    c. 188; 67.4%
    d. 279; 32.6%

Ans: A
Learning Objective: 2-2
Cognitive Domain: Analysis
Answer Location: What percentage of the sample has each value of the variable?
Question Type: MC

46. You would use a _____ to illustrate the data in the above frequency distribution table because the variable is measured at the ____ scale of measurement.
    a. frequency polygon; ordinal
    b. bar chart; nominal
    c. histogram; interval
    d. pie graph; ratio

Ans: B
Learning Objective: 2-4
Cognitive Domain: Comprehension
Answer Location: Displaying nominal and ordinal variables: bar charts and pie charts
Question Type: MC

NOTE: Questions 47-48 are based on the following frequency distribution table:

# phones	*f*	%
2	9	45.0%
1	4	_____
0	_____	_____
Total	20	100.0%

47. Filling in the blanks in the above frequency distribution table, _____ people owned 0 phones; this represents _____ of the sample.
    a. 7; 35.0%
    b. 7; 55.0%
    c. 13; 20.0%
    d. 20; 35.0%

Ans: A
Learning Objective: 2-2
Cognitive Domain: Analysis

Answer Location: What percentage of the sample has each value of the variable?
Question Type: MC

48. You would use a _____ to illustrate the data in the above frequency distribution table because the variable is measured at the ____ scale of measurement.
    a. frequency polygon; nominal
    b. bar chart; interval
    c. histogram; ratio
    d. pie graph; ordinal
Ans: C
Learning Objective: 2-4
Cognitive Domain: Comprehension
Answer Location: Displaying nominal and ordinal variables: bar charts and pie charts
Question Type: MC

NOTE: Questions 49-50 are based on the following frequency distribution table:

# phones	*f*	%
2	9	45.0%
1	_____	_____
0	7	_____
Total	20	100.0%

49. Filling in the blanks in the above frequency distribution table, _____ people owned 1 phone; this is _____ of the sample.
    a. 4; 20.0%
    b. 4; 55.0%
    c. 16; 80.0%
    d. 20; 20.0%
Ans: A
Learning Objective: 2-2
Cognitive Domain: Analysis
Answer Location: What percentage of the sample has each value of the variable?
Question Type: MC

50. You would use a _____ to illustrate the data in the above frequency distribution table because the variable is measured at the ____ scale of measurement.
    a. frequency polygon; nominal
    b. bar chart; interval
    c. histogram; ratio
    d. pie graph; ordinal
Ans: C
Learning Objective: 2-4
Cognitive Domain: Comprehension
Answer Location: Displaying nominal and ordinal variables: bar charts and pie charts
Question Type: MC

NOTE: Questions 51-52 are based on the following frequency distribution table:

Color	*f*	%
Red	86	40.4%
Yellow	70	_____
Green	_____	_____
Total	213	100.0%

51. Filling in the blanks in the above frequency distribution table, _____ people preferred 'Green'; this is _____ of the sample.
    a. 57; 26.8%
    b. 57; 59.6%
    c. 156; 32.9%
    d. 213; 26.8%

Ans: A
Learning Objective: 2-2
Cognitive Domain: Analysis
Answer Location: What percentage of the sample has each value of the variable?
Question Type: MC

52. You would use a _____ to illustrate the data in the above frequency distribution table because the variable is measured at the ____ scale of measurement.
    a. frequency polygon; ordinal
    b. bar chart; nominal
    c. histogram; interval
    d. pie graph; ratio

Ans: B
Learning Objective: 2-4
Cognitive Domain: Comprehension
Answer Location: Displaying nominal and ordinal variables: bar charts and pie charts
Question Type: MC

NOTE: Questions 53-54 are based on the following frequency distribution table:

Color	*f*	%
Red	86	40.4%
Yellow	_____	_____
Green	57	_____
Total	213	100.0%

53. Filling in the blanks in the above frequency distribution table, _____ people preferred 'Yellow'; this is _____ of the sample.
    a. 70; 32.9%
    b. 70; 59.6%
    c. 143; 67.1%
    d. 213; 32.9%

Ans: A
Learning Objective: 2-2

Cognitive Domain: Analysis
Answer Location: What percentage of the sample has each value of the variable?
Question Type: MC

54. You would use a _____ to illustrate the data in the above frequency distribution table because the variable is measured at the ____ scale of measurement.
    a. frequency polygon; ordinal
    b. bar chart; nominal
    c. histogram; interval
    d. pie graph; ratio

Ans: B
Learning Objective: 2-4
Cognitive Domain: Comprehension
Answer Location: Displaying nominal and ordinal variables: bar charts and pie charts
Question Type: MC

NOTE: Questions 55-56 are based on the following frequency distribution table:

Fast food	*f*	%
Hot dog	11	13.6%
Hamburger	24	_____
Sandwich	_____	14.1%
Pizza	_____	_____
Total	59	100.0%

55. Filling in the blanks in the above frequency distribution table, _____ people selected 'Pizza'; this is _____ of the sample.
    a. 20; 31.3%
    b. 20; 68.8%
    c. 29; 45.3%
    d. 29; 31.3%

Ans: A
Learning Objective: 2-2
Cognitive Domain: Analysis
Answer Location: What percentage of the sample has each value of the variable?
Question Type: MC

56. You would use a _____ to illustrate the data in the above frequency distribution table because the variable is measured at the ____ scale of measurement.
    a. frequency polygon; ordinal
    b. bar chart; nominal
    c. histogram; interval
    d. pie graph; ratio

Ans: B
Learning Objective: 2-4
Cognitive Domain: Comprehension
Answer Location: Displaying nominal and ordinal variables: bar charts and pie charts
Question Type: MC

NOTE: Questions 57-58 are based on the following frequency distribution table:

Fast food	*f*	%
Hot dog	11	13.6%
Hamburger	24	_____
Sandwich	_____	14.1%
Pizza	_____	_____
Total	59	100.0%

57. Filling in the blanks in the above frequency distribution table, _____ people selected 'Sandwich'; on the other hand, _____selected 'Hamburger'.
    a. 9; 37.5%
    b. 9; 68.8%
    c. 29; 51.6%
    d. 29; 45.3%

Ans: A
Learning Objective: 2-2
Cognitive Domain: Analysis
Answer Location: What percentage of the sample has each value of the variable?
Question Type: MC

58. You would use a _____ to illustrate the data in the above frequency distribution table because the variable is measured at the ____ scale of measurement.
    a. frequency polygon; ordinal
    b. bar chart; nominal
    c. histogram; interval
    d. pie graph; ratio

Ans: B
Learning Objective: 2-4
Cognitive Domain: Comprehension
Answer Location: Displaying nominal and ordinal variables: bar charts and pie charts
Question Type: MC

NOTE: Questions 59-60 are based on the following frequency distribution table:

Sport	*f*	%
Baseball	37	50.7%
Basketball	19	_____
Tennis	_____	16.4%
Soccer	_____	_____
Total	59	100.0%

59. Filling in the blanks in the above frequency distribution table, _____ people played soccer; this is _____ of the sample.
    a. 5; 6.8%

b. 5; 32.9%
c. 17; 23.3%
d. 17; 6.8%

Ans: A
Learning Objective: 2-2
Cognitive Domain: Analysis
Answer Location: What percentage of the sample has each value of the variable?
Question Type: MC

60. You would use a _____ to illustrate the data in the above frequency distribution table because the variable is measured at the ____ scale of measurement.
a. frequency polygon; ordinal
b. bar chart; nominal
c. histogram; interval
d. pie graph; ratio

Ans: B
Learning Objective: 2-4
Cognitive Domain: Comprehension
Answer Location: Displaying nominal and ordinal variables: bar charts and pie charts
Question Type: MC

NOTE: Questions 61-62 are based on the following frequency distribution table:

Sport	*f*	%
Baseball	37	50.7%
Basketball	19	_____
Tennis	_____	16.4%
Soccer	_____	_____
Total	59	100.0%

61. Filling in the blanks in the above frequency distribution table, _____ people played football; on the other hand, _____ people played basketball.
a. 12; 26.0%
b. 12; 32.9%
c. 17; 42.5%
d. 17; 23.3%

Ans: A
Learning Objective: 2-2
Cognitive Domain: Analysis
Answer Location: What percentage of the sample has each value of the variable?
Question Type: MC

62. You would use a _____ to illustrate the data in the above frequency distribution table because the variable is measured at the ____ scale of measurement.
a. frequency polygon; ordinal
b. bar chart; nominal
c. histogram; interval
d. pie graph; ratio

Ans: B
Learning Objective: 2-4
Cognitive Domain: Comprehension
Answer Location: Displaying nominal and ordinal variables: bar charts and pie charts
Question Type: MC

NOTE: Questions 63-64 are based on the following frequency distribution table:

Science	*f*	%
Biology	46	33.1%
Chemistry	44	_____
Physics	_____	21.6%
Math	_____	_____
Total	139	100.0%

63. Filling in the blanks in the above frequency distribution table, _____ people took a math class; this is _____ of the sample.
    a. 19; 13.7%
    b. 19; 45.3%
    c. 49; 35.3%
    d. 49; 13.7%

Ans: A
Learning Objective: 2-2
Cognitive Domain: Analysis
Answer Location: What percentage of the sample has each value of the variable?
Question Type: MC

64. You would use a _____ to illustrate the data in the above frequency distribution table because the variable is measured at the ____ level of measurement.
    a. frequency polygon; ordinal
    b. bar chart; nominal
    c. histogram; interval
    d. pie graph; ratio

Ans: B
Learning Objective: 2-4
Cognitive Domain: Comprehension
Answer Location: Displaying nominal and ordinal variables: bar charts and pie charts
Question Type: MC

NOTE: Questions 65-66 are based on the following frequency distribution table:

Science	*f*	%
Biology	46	33.1%
Chemistry	44	_____
Physics	_____	21.6%
Math	_____	_____

Total	139	100.0%

65. Filling in the blanks in the above frequency distribution table, _____ people took physics; on the other hand, _____people took chemistry.
    a. 30; 31.7%
    b. 30; 45.3%
    c. 49; 53.2%
    d. 49; 35.3%

Ans: A
Learning Objective: 2-2
Cognitive Domain: Analysis
Answer Location: What percentage of the sample has each value of the variable?
Question Type: MC

66. You would use a _____ to illustrate the data in the above frequency distribution table because the variable is measured at the ____ level of measurement.
    a. frequency polygon; ordinal
    b. bar chart; nominal
    c. histogram; interval
    d. pie graph; ratio

Ans: B
Learning Objective: 2-4
Cognitive Domain: Comprehension
Answer Location: Displaying nominal and ordinal variables: bar charts and pie charts
Question Type: MC

NOTE: Questions 67-68 are based on the following frequency distribution table:

# jobs	*f*	%
3	28	31.5%
2	35	_____
1	_____	10.1%
0	_____	_____
Total	89	100.0%

67. Filling in the blanks in the above frequency distribution table, _____ people had 0 jobs; this is _____ of the sample.
    a. 17; 19.1%
    b. 17; 58.4%
    c. 26; 29.2%
    d. 26; 19.1%

Ans: A
Learning Objective: 2-2
Cognitive Domain: Analysis
Answer Location: What percentage of the sample has each value of the variable?
Question Type: MC

68. You would use a _____ to illustrate the data in the above frequency distribution table because the variable is measured at the _____ level of measurement.
    a. frequency polygon; nominal
    b. bar chart; interval
    c. histogram; ratio
    d. pie graph; ordinal

Ans: C
Learning Objective: 2-4
Cognitive Domain: Comprehension
Answer Location: Displaying nominal and ordinal variables: bar charts and pie charts
Question Type: MC

NOTE: Questions 69-70 are based on the following frequency distribution table:

# jobs	*f*	%
3	28	31.5%
2	35	_____
1	_____	10.1%
0	_____	_____
Total	89	100.0%

69. Filling in the blanks in this frequency distribution table, _____ people had 1 job; on the other hand, _____people had 2 jobs.
    a. 9; 39.3%
    b. 9; 58.4%
    c. 26; 49.4%
    d. 26; 29.2%

Ans: A
Learning Objective: 2-2
Cognitive Domain: Analysis
Answer Location: What percentage of the sample has each value of the variable?
Question Type: MC

70. You would use a _____ to illustrate the data in the above frequency distribution table because the variable is measured at the _____ level of measurement.
    a. frequency polygon; nominal
    b. bar chart; interval
    c. histogram; ratio
    d. pie graph; ordinal

Ans: C
Learning Objective: 2-4
Cognitive Domain: Comprehension
Answer Location: Displaying nominal and ordinal variables: bar charts and pie charts
Question Type: MC

GROUPED FREQUENCY DISTRIBUTION TABLES AND REAL LIMITS

71. A table that groups the values of a variable measured at the interval or ratio level of measurement into a small number of intervals is known as a:
    a. percent distribution table
    b. grouped frequency distribution table
    c. cumulative frequency distribution table
    d. cumulative percent distribution table

Ans: B
Learning Objective: 2-2
Cognitive Domain: Knowledge
Answer Location: Grouped Frequency Distribution Tables
Question Type: MC

72. Grouped frequency distribution tables are created to summarize data for variables measured at the _____ level of measurement.
    a. nominal or interval
    b. nominal or ordinal
    c. ordinal or ratio
    d. interval or ratio

Ans: D
Learning Objective: 2-2
Cognitive Domain: Knowledge
Answer Location: Grouped Frequency Distribution Tables
Question Type: MC

73. Grouped frequency distribution tables are created to summarize data for variables measured at the _____ level of measurement.
    a. ordinal or interval
    b. interval or ratio
    c. nominal or ordinal
    d. nominal or ratio

Ans: B
Learning Objective: 2-2
Cognitive Domain: Knowledge
Answer Location: Grouped Frequency Distribution Tables
Question Type: MC

74. For which of these variables would you create a grouped frequency distribution table to summarize data you've collected?
    a. College major
    b. Year in school
    c. Type of housing
    d. Distance from campus (miles)

Ans: D
Learning Objective: 2-2
Cognitive Domain: Knowledge
Answer Location: Grouped Frequency Distribution Tables
Question Type: MC

75. For which of these variables would you create a grouped frequency distribution table to summarize data you've collected?

a. Type of automobile
b. Miles per gallon (MPG)
c. Color of automobile
d. Type of gasoline

Ans: B
Learning Objective: 2-2
Cognitive Domain: Knowledge
Answer Location: Grouped Frequency Distribution Tables
Question Type: MC

76. For which of these variables would you create a grouped frequency distribution table to summarize data you've collected?
a. Number of calories
b. Type of salad dressing
c. Favorite restaurant
d. Day of week

Ans: A
Learning Objective: 2-2
Cognitive Domain: Knowledge
Answer Location: Grouped Frequency Distribution Tables
Question Type: MC

77. For which of these variables would you create a grouped frequency distribution table to summarize data you've collected?
a. Type of music
b. Quality of video
c. Number of downloads
d. Favorite singer

Ans: C
Learning Objective: 2-2
Cognitive Domain: Knowledge
Answer Location: Grouped Frequency Distribution Tables
Question Type: MC

78. Real limits are:
a. the values of a variable that fall halfway between the top of one interval and the bottom of the next interval.
b. the smallest value of a variable that would be grouped into a particular interval.
c. the largest value of a variable that would be grouped into a particular interval.
d. a small number of intervals that provide the frequencies within each interval.

Ans: A
Learning Objective: 2-2
Cognitive Domain: Knowledge
Answer Location: Grouped Frequency Distribution Tables
Question Type: MC

79. Real lower limits are:
a. the values of a variable that fall halfway between the top of one interval and the bottom of the next interval.
b. the smallest value of a variable that would be grouped into a particular level.

c. the largest value of a variable that would be grouped into a particular interval.
d. a small number of intervals that provide the frequencies within each interval.

Ans: B
Learning Objective: 2-2
Cognitive Domain: Knowledge
Answer Location: Grouped Frequency Distribution Tables
Question Type: MC

80. Real upper limits are:
a. the values of a variable that fall halfway between the top of one interval and the bottom of the next interval.
b. the smallest value of a variable that would be grouped into a particular level.
c. the largest value of a variable that would be grouped into a particular interval.
d. a small number of intervals that provide the frequencies within each interval.

Ans: C
Learning Objective: 2-2
Cognitive Domain: Knowledge
Answer Location: Grouped Frequency Distribution Tables
Question Type: MC

81. The smallest values of a variable that would be grouped into a particular interval are:
a. real limits
b. real lower limits
c. real upper limits
d. grouped frequency distribution

Ans: B
Learning Objective: 2-2
Cognitive Domain: Knowledge
Answer Location: Grouped Frequency Distribution Tables
Question Type: MC

82. The largest values of a variable that would be grouped into a particular interval are:
a. real limits
b. real lower limits
c. real upper limits
d. grouped frequency distribution

Ans: C
Learning Objective: 2-2
Cognitive Domain: Knowledge
Answer Location: Grouped Frequency Distribution Tables
Question Type: MC

GROUPED FREQUENCY DISTRIBUTION TABLES (CREATING)

83. When creating a grouped frequency distribution table, the number of intervals depends on
a. the size of the population
b. the difference between the sample and the population
c. the distribution of data in the sample
d. arbitrary cutpoints

Ans: C
Learning Objective: 2-2
Cognitive Domain: Knowledge
Answer Location: Guidelines for creating grouped frequency distribution tables
Question Type: MC

84. Which of the following is <u>not</u> a guideline for creating grouped frequency distribution tables?
    a. The number of intervals should accurately represent the data
    b. Intervals should be of equal size
    c. Intervals should not overlap
    d. The data should be grouped into randomly created intervals

Ans: D
Learning Objective: 2-2
Cognitive Domain: Comprehension
Answer Location: Guidelines for creating grouped frequency distribution tables
Question Type: MC

85. The intervals created for a grouped frequency distribution table should represent the nature of the data as _____ as possible.
    a. redundantly
    b. accurately
    c. arbitrarily
    d. simplistically

Ans: B
Learning Objective: 2-2
Cognitive Domain: Comprehension
Answer Location: Guidelines for creating grouped frequency distribution tables
Question Type: MC

86. Which of the following is true regarding creating intervals for a grouped frequency distribution table?
    a. The intervals should be of equal size
    b. The intervals should overlap
    c. Many of the intervals should have a frequency of zero
    d. All of the intervals should have the same frequencies

Ans: A
Learning Objective: 2-2
Cognitive Domain: Knowledge
Answer Location: Guidelines for creating grouped frequency distribution tables
Question Type: MC

FREQUENCY DISTRIBUTION TABLES (CUMULATIVE PERCENTAGES)

87. Filling in the blanks in this frequency distribution table, the cumulative percent (‘Cum %’) associated with 3 arrests is _____.

# arrests	*f*	%	Cum %
4+	1	5.0%	100.0%
3	1	_____	_____
2	3	_____	_____
1	7	35.0%	75.0%
0	8	40.0%	40.0%
Total	20	100.0%	

a. 5.0%
b. 20.0%
c. 90.0%
d. 95.0%

Ans: D
Learning Objective: 2-2
Cognitive Domain: Analysis
Answer Location: What percentage of the sample has each value of the variable?
Question Type: MC

88. Filling in the blanks in this frequency distribution table, the percentage ('%') for 2 arrests is _____; the cumulative percent ('Cum %') associated with 2 arrests is _____.

# arrests	*f*	%	Cum %
4+	1	5.0%	100.0%
3	1	_____	_____
2	3	_____	_____
1	7	35.0%	75.0%
0	8	40.0%	40.0%
Total	20	100.0%	

a. 5.0%; 90.0%
b. 15.0%; 90.0%
c. 20.0%; 95.0%
d. 90.0%; 15.0%

Ans: B
Learning Objective: 2-2
Cognitive Domain: Analysis
Answer Location: What percentage of the sample has each value of the variable?
Question Type: MC

89. Filling in the blanks in this frequency distribution table, the cumulative percent ('Cum %') associated with 11th grade is _____.

Year in school	*f*	%	Cum %
12th	2	5.3%	100.0%
11th	6	_____	_____
10th	7	_____	_____
9th	10	26.3%	60.5%
8th	13	34.2%	34.2%
Total	38	100.0%	

a. 15.8%
b. 34.2%
c. 78.9%
d. 94.7%

Ans: D
Learning Objective: 2-2
Cognitive Domain: Analysis
Answer Location: What percentage of the sample has each value of the variable?
Question Type: MC

90. Filling in the blanks in this frequency distribution table, the percentage ('%') for 10th grade is _____; the cumulative percent ('Cum %') associated with 10th grade is _____.

Year in school	*f*	%	Cum %
12th	2	5.3%	100.0%
11th	6	_____	_____
10th	7	_____	_____
9th	10	26.3%	60.5%
8th	13	34.2%	34.2%
Total	38	100.0%	

a. 15.8%; 78.9%
b. 18.4%; 78.9%
c. 34.2%; 94.7%
d. 78.9%; 18.4%

Ans: B
Learning Objective: 2-2
Cognitive Domain: Analysis
Answer Location: What percentage of the sample has each value of the variable?
Question Type: MC

91. Filling in the blanks in this frequency distribution table, the cumulative percent ('Cum %') associated with a B grade is _____.

Grade	*f*	%	Cum %
A	19	16.7%	100.0%
B	42	_____	_____
C	27	_____	_____
D	16	14.0%	22.8%
F	10	8.8%	8.8%
Total	114	100.0%	

a. 46.5%
b. 36.8%
c. 60.5%
d. 83.3%

Ans: D
Learning Objective: 2-2
Cognitive Domain: Analysis
Answer Location: What percentage of the sample has each value of the variable?
Question Type: MC

92. Filling in the blanks in this frequency distribution table, the percentage ('%') for a C grade is _____; the cumulative percent ('Cum %') associated with a C grade is _____.

Grade	*f*	%	Cum %
A	19	16.7%	100.0%
B	42	_____	_____
C	27	_____	_____
D	16	14.0%	22.8%
F	10	8.8%	8.8%
Total	114	100.0%	

a. 36.8%; 46.5%
b. 23.7%; 46.5%
c. 60.5%; 83.3%
d. 46.5%; 23.7%

Ans: B
Learning Objective: 2-2
Cognitive Domain: Analysis
Answer Location: What percentage of the sample has each value of the variable?
Question Type: MC

93. Filling in the blanks in this frequency distribution table, the cumulative percent ('Cum %') associated with a rating of 'Very good' is _____.

Rating	*f*	%	Cum %
Excellent	33	14.2%	100.0%
Very good	52	_____	_____
Good	86	_____	_____
Fair	41	17.7%	26.3%
Poor	20	8.6%	8.6%
Total	232	100.0%	

a. 22.4%
b. 59.5%
c. 63.4%
d. 85.8%

Ans: D
Learning Objective: 2-2
Cognitive Domain: Analysis
Answer Location: What percentage of the sample has each value of the variable?
Question Type: MC

94. Filling in the blanks in this frequency distribution table, the percentage ('%') for a rating of 'Good' is _____; the cumulative percent ('Cum %') associated with a rating of 'Good' is _____.

Rating	*f*	%	Cum %
Excellent	33	14.2%	100.0%
Very good	52	_____	_____
Good	86	_____	_____
Fair	41	17.7%	26.3%
Poor	20	8.6%	8.6%
Total	232	100.0%	

a. 22.4%; 63.4%
b. 37.1%; 63.4%
c. 59.5%; 85.8%
d. 63.4%; 37.1%

Ans: B
Learning Objective: 2-2
Cognitive Domain: Analysis
Answer Location: What percentage of the sample has each value of the variable?
Question Type: MC

95. Filling in the blanks in this frequency distribution table, the cumulative percent ('Cum %') associated with a score of 31-40 is _____.

Score	*f*	%	Cum %
41-50	17	36.2%	100.0%
31-40	14	_____	_____
21-30	9	_____	_____
11-20	4	8.5%	14.9%
0-10	3	6.4%	6.4%
Total	47	100.0%	

a. 29.8%
b. 48.9%
c. 34.0%
d. 63.8%

Ans: D
Learning Objective: 2-2
Cognitive Domain: Analysis
Answer Location: What percentage of the sample has each value of the variable?
Question Type: MC

96. Filling in the blanks in this frequency distribution table, the percentage ('%') for a score of 21-30 is _____; the cumulative percent ('Cum %') associated with a score of 21-30 is _____.

Score	*f*	%	Cum %
41-50	17	36.2%	100.0%
31-40	14	_____	_____
21-30	9	_____	_____
11-20	4	8.5%	14.9%
0-10	3	6.4%	6.4%
Total	47	100.0%	

a. 29.8%; 34.0%
b. 19.1%; 34.0%
c. 48.9%; 63.8%
d. 34.0%; 19.1%

Ans: B
Learning Objective: 2-2
Cognitive Domain: Analysis
Answer Location: What percentage of the sample has each value of the variable?
Question Type: MC

APA GUIDELINES FOR FIGURES

97. In constructing figures such as bar charts and frequency polygons, the American Psychological Association (APA) recommends that
a. figures be numbered using Roman numerals (Figure I, Figure II, etc.)
b. figures have a square shape, with the same horizontal and vertical dimensions

c. values along the vertical (Y) axis start with the value of zero (0)
d. the vertical axis (Y-axis) be divided into 2-3 values of the variable
Ans: C
Learning Objective: 2-3
Cognitive Domain: Knowledge
Answer Location: Drawing Inappropriate Conclusions From Figures
Question Type: MC

98. In constructing figures such as bar charts and frequency polygons, the American Psychological Association (APA) recommends that
a. figures be numbered using letters (Figure A, Figure B, etc.)
b. figures have a rectangular shape, with the length of the horizontal (X) axis greater than the height of the vertical (Y) axis
c. labels along the X and Y axes be written in all capital letters (i.e., MALE, FEMALE)
d. the vertical axis (Y-axis) be divided into 2-3 values of the variable
Ans: B
Learning Objective: 2-3
Cognitive Domain: Knowledge
Answer Location: Drawing Inappropriate Conclusions From Figures
Question Type: MC

99. In constructing figures such as bar charts and frequency polygons, the American Psychological Association (APA) recommends that
a. figures be numbered using Arabic numbers (Figure 1, Figure 2, etc.)
b. the vertical axis (Y-axis) be divided into 15-20 values of the variable
c. labels along the X and Y axes be written in all lower-case letters (i.e., male, female)
d. the horizontal (X) axis contains the frequency (*f*) or percentage (%) of the sample with each value of the variable
Ans: A
Learning Objective: 2-3
Cognitive Domain: Knowledge
Answer Location: Drawing Inappropriate Conclusions From Figures
Question Type: MC

ASPECTS OF DISTRIBUTIONS (MODALITY, SYMMETRY, VARIABILITY)

100. Which of these is <u>not</u> one of the three aspects of distributions discussed in the textbook?
a. variability
b. directionality
c. symmetry
d. modality
Ans: B
Learning Objective: 2-5
Cognitive Domain: Knowledge
Answer Location: Examining data: describing distributions
Question Type: MC

101. Which of these is <u>not</u> one of the three aspects of distributions discussed in the textbook?
a. variability

b. frequency
c. symmetry
d. modality
Ans: B
Learning Objective: 2-5
Cognitive Domain: Knowledge
Answer Location: Examining data: describing distributions
Question Type: MC

102. Which of these is not one of the three aspects of distributions discussed in the textbook?
a. variability
b. range
c. symmetry
d. modality
Ans: B
Learning Objective: 2-5
Cognitive Domain: Knowledge
Answer Location: Examining data: describing distributions
Question Type: MC

103. Which of these is not one of the three aspects of distributions discussed in the textbook?
a. variability
b. representativeness
c. symmetry
d. modality
Ans: B
Learning Objective: 2-5
Cognitive Domain: Knowledge
Answer Location: Examining data: describing distributions
Question Type: MC

104. Which of these is not one of the three aspects of distributions discussed in the textbook?
a. symmetry
b. variability
c. centrality
d. modality
Ans: C
Learning Objective: 2-5
Cognitive Domain: Knowledge
Answer Location: Examining data: describing distributions
Question Type: MC

105. Which of these is not one of the three aspects of distributions discussed in the textbook?
a. size
b. variability
c. symmetry
d. modality
Ans: A
Learning Objective: 2-5
Cognitive Domain: Knowledge

Answer Location: Examining data: describing distributions
Question Type: MC

106. Which of these is not one of the three aspects of distributions discussed in the textbook?
a. symmetry
b. variability
c. methodology
d. modality
Ans: C
Learning Objective: 2-5
Cognitive Domain: Knowledge
Answer Location: Examining data: describing distributions
Question Type: MC

107. Which of these is not one of the three aspects of distributions discussed in the textbook?
a. independence
b. variability
c. symmetry
d. modality
Ans: A
Learning Objective: 2-5
Cognitive Domain: Knowledge
Answer Location: Examining data: describing distributions
Question Type: MC

108. Which of these is not one of the three aspects of distributions discussed in the textbook?
a. symmetry
b. variability
c. magnitude
d. modality
Ans: C
Learning Objective: 2-5
Cognitive Domain: Knowledge
Answer Location: Examining data: describing distributions
Question Type: MC

DESCRIBING DISTRIBUTIONS (MODALITY, SYMMETRY, VARIABILITY)

109. You would use the word _____ in describing a distribution that is _____,
a. bimodal; skewed
b. skewed; symmetrical
c. normal; asymmetrical
d. skewed; asymmetrical
Ans: D
Learning Objective: 2-7
Cognitive Domain: Comprehension
Answer Location: Symmetry
Question Type: MC

110. You would use the word _____ to describe a distribution that is _____.
    a. bimodal; normal
    b. skewed; asymmetrical
    c. normal; skewed
    d. flat; bimodal
Ans: B
Learning Objective: 2-7
Cognitive Domain: Comprehension
Answer Location: Symmetry
Question Type: MC

111. You would use the word _____ to describe the _____ of a distribution
    a. bimodal; variability
    b. skewed; variability
    c. skewed; symmetry
    d. flat; modality
Ans: C
Learning Objective: 2-6
Cognitive Domain: Comprehension
Answer Location: Symmetry
Question Type: MC

112. You would use the word _____ to describe the _____ of a distribution
    a. bimodal; modality
    b. skewed; variability
    c. skewed; variability
    d. peaked; symmetry
Ans: A
Learning Objective: 2-6
Cognitive Domain: Comprehension
Answer Location: Modality
Question Type: MC

113. You would use the word _____ to describe the _____ of a distribution
    a. symmetrical; modality
    b. peaked; variability
    c. skewed; modality
    d. flat; symmetry
Ans: B
Learning Objective: 2-9
Cognitive Domain: Comprehension
Answer Location: Variability
Question Type: MC

114. You would use the word _____ to describe the _____ of a distribution
    a. symmetrical; modality
    b. skewed; modality
    c. flat; variability
    d. bimodal; symmetry
Ans: C

Learning Objective: 2-9
Cognitive Domain: Comprehension
Answer Location: Variability
Question Type: MC

115. You would use the word _____ to describe the _____ of a distribution.
a. peaked; modality
b. flat; symmetry
c. bimodal; variability
d. skewed; symmetry
Ans: D
Learning Objective: 2-7
Cognitive Domain: Comprehension
Answer Location: Symmetry
Question Type: MC

DESCRIBING DISTRIBUTIONS (HYPOTHETICAL SITUATIONS)

116. After grading an examination, an instructor realizes the exam was much harder than he planned. He realizes this because the shape of the distribution of exam scores is
a. positively skewed
b. negatively skewed
c. symmetrical
d. flat
Ans: A
Learning Objective: 2-8
Cognitive Domain: Application
Answer Location: Symmetry
Question Type: MC

117. After grading an examination, an instructor realizes the exam was much easier than she planned. She reaches this conclusion because the shape of the distribution of exam scores is
a. positively skewed
b. normal
c. negatively skewed
d. flat
Ans: C
Learning Objective: 2-8
Cognitive Domain: Application
Answer Location: Symmetry
Question Type: MC

118. After grading an examination, an instructor realizes the exam was much harder than she planned. She reaches this conclusion because the shape of the distribution of exam scores is
a. bimodal
b. flat
c. skewed
d. normal
Ans: C

Learning Objective: 2-7
Cognitive Domain: Application
Answer Location: Symmetry
Question Type: MC

119. A researcher asks a sample of people about their attitudes toward same-sex marriage and concludes that most people in her sample are strongly in favor of it, with relatively few people either undecided or against it. She reaches this conclusion because the shape of the distribution is
    a. normal
    b. flat
    c. skewed
    d. bimodal

Ans: C
Learning Objective: 2-6
Cognitive Domain: Application
Answer Location: Modality
Question Type: MC

120. After grading an examination, an instructor realizes her class is comprised of students who either completely understand the material or do not understand the material at all. She reaches this conclusion because the shape of the distribution of exam scores is
    a. bimodal
    b. flat
    c. skewed
    d. normal

Ans: A
Learning Objective: 2-7
Cognitive Domain: Application
Answer Location: Symmetry
Question Type: MC

121. A researcher asks a sample of people about their attitudes toward same-sex marriage and concludes people are either strongly in favor of it or strongly opposed, with relatively few people either unsure or indifferent. She reaches this conclusion because the shape of the distribution is
    a. normal
    b. peaked
    c. skewed
    d. bimodal

Ans: D
Learning Objective: 2-6
Cognitive Domain: Application
Answer Location: Modality
Question Type: MC

122. After grading an examination, an instructor realizes there is a wide range of ability among her students. She reaches this conclusion because the shape of the distribution is
    a. flat
    b. skewed
    c. abnormal
    d. peaked

Ans: A
Learning Objective: 2-9
Cognitive Domain: Application
Answer Location: Variability
Question Type: MC

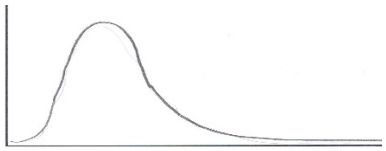
123. A researcher asks a sample of people about their attitudes toward marijuana legalization and concludes people have a wide variety of opinions, and are equally likely to be anywhere between strongly in favor of it to strongly opposed to it. She reaches this conclusion because the shape of the distribution is
    a. flat
    b. skewed
    c. abnormal
    d. peaked
Ans: A
Learning Objective: 2-9
Cognitive Domain: Application
Answer Location: Variability
Question Type: MC

124. A panel of judges in a high school science fair have to select the overall winner from a group of contestants. Which of these distributions would make their decision *most* difficult to make?
    a. peaked
    b. bimodal
    c. normal
    d. flat
Ans: A
Learning Objective: 2-9
Cognitive Domain: Application
Answer Location: Variability
Question Type: MC

125. A researcher asks a sample of people about a particular politician and concludes the virtually everyone has the same opinion of the politician. She reaches this conclusion because the shape of the distribution is
    a. peaked
    b. bimodal
    c. normal
    d. flat
Ans: A
Learning Objective: 2-9
Cognitive Domain: Application
Answer Location: Variability
Question Type: MC

DESCRIBING DISTRIBUTIONS (HYPOTHETICAL FIGURES)

126. Which of the following *best* describes the shape of this distribution?



a. skewed
b. symmetrical
c. bimodal
d. flat

Ans: A
Learning Objective: 2-7
Cognitive Domain: Comprehension
Answer Location: Symmetry
Question Type: MC

127. Which of the following *best* describes the shape of this distribution?

a. skewed
b. symmetrical
c. bimodal
d. asymmetrical

Ans: B
Learning Objective: 2-7
Cognitive Domain: Comprehension
Answer Location: Symmetry
Question Type: MC

128. Which of the following does <u>not</u> describe the shape of this distribution?

a. normal
b. symmetrical
c. unimodal
d. skewed

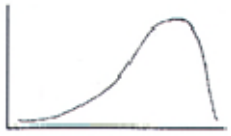
Ans: D
Learning Objective: 2-7
Cognitive Domain: Comprehension
Answer Location: Symmetry
Question Type: MC

129. Which of the following <u>best</u> describes the shape of this distribution?

a. flat
b. asymmetrical
c. bimodal
d. skewed

Ans: A
Learning Objective: 2-9
Cognitive Domain: Comprehension
Answer Location: Symmetry
Question Type: MC

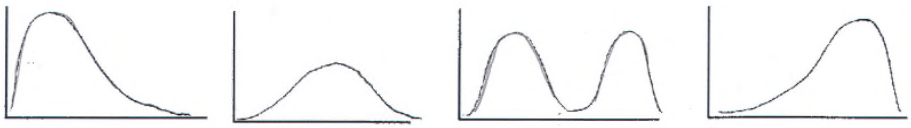
130. Which of the following does not describe the shape of this distribution?



a. normal
b. asymmetrical
c. unimodal
d. skewed

Ans: A
Learning Objective: 2-9
Cognitive Domain: Comprehension
Answer Location: Variability
Question Type: MC

131. A pollster finds that people are either strongly in favor of abortion or are strongly opposed. Which of these best describes the distribution of attitudes?

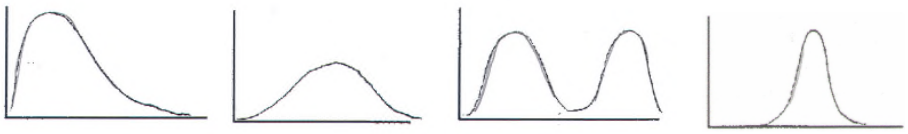


A B C D

a. A
b. B
c. C
d. D

Ans: C
Learning Objective: 2-7
Cognitive Domain: Comprehension
Answer Location: Modality
Question Type: MC

132. A university surveys its students and finds the large majority of students are ‘somewhat satisfied’ with the education they have received, with only a few students either ‘very unsatisfied’ or ‘very satisfied. Which of these *best* describes the distribution of satisfaction?



A B C D

a. A
b. B
c. C
d. D

Ans: D
Learning Objective: 2-7
Cognitive Domain: Comprehension
Answer Location: Modality
Question Type: MC

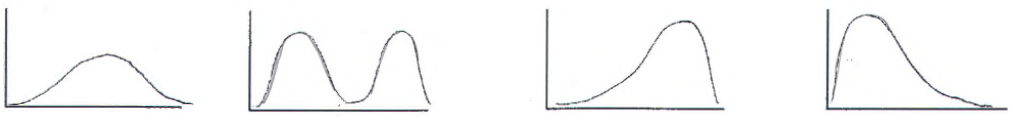
133. A university asks students to indicate their level of satisfaction with their education (from low to high). They find the large majority of students are 'very satisfied' with their education, with relatively few students either 'very unsatisfied' or 'satisfied'. Which of these *best* describes this distribution?

A B C D

a. A
b. B
c. C
d. D

Ans: C
Learning Objective: 2-7
Cognitive Domain: Comprehension
Answer Location: Symmetry
Question Type: MC

134. A judge has been hired to resolve the salary negotiations between a company and its labor union. The great majority of union members have relatively low salaries; however, a small percentage of union members have very high salaries. Which of these *best* describes the distribution of salaries?



A B C D

a. A
b. B
c. C
d. D

Ans: D

Learning Objective: 2-7
Cognitive Domain: Comprehension
Answer Location: Symmetry
Question Type: MC

DESCRIBING DISTRIBUTIONS (SETS OF DATA)

135. For the set of data below, pick the choice that *best* describes the shape of the distribution:

3, 7, 7, 12, 6, 7, 4, 7, 9, 7

a. normal
b. bimodal
c. flat
d. peaked

Ans: D
Learning Objective: 2-9
Cognitive Domain: Analysis
Answer Location: Variability
Question Type: MC

136. Which of the following best describes the shape of the distribution of these 11 scores?

16, 17, 12, 23, 18, 15, 17, 18, 17, 20, 16

a. bimodal
b. peaked
c. skewed
d. symmetrical

Ans: D
Learning Objective: 2-7
Cognitive Domain: Analysis
Answer Location: Symmetry
Question Type: MC

137. Which of the following *best* describes the shape of the distribution?

9, 4, 1, 6, 9, 8, 11, 9, 8, 9, 7

a. skewed
b. bimodal
c. symmetrical
d. flat

Ans: A
Learning Objective: 2-7
Cognitive Domain: Analysis
Answer Location: Symmetry
Question Type: MC

138. Which measure of central tendency would be the most appropriate for this distribution?

9, 4, 1, 6, 9, 8, 11, 9, 8, 9, 7

a. variance
b. median
c. standard deviation
d. mean

Ans: B
Learning Objective: 2-5
Cognitive Domain: Comprehension
Answer Location: Symmetry
Question Type: MC

139. Which of the following *best* describes the shape of the distribution?

9, 2, 4, 6, 4, 7, 9, 4, 9, 11, 5

a. skewed
b. bimodal
c. symmetrical
d. flat

Ans: B
Learning Objective: 2-6
Cognitive Domain: Analysis
Answer Location: Modality
Question Type: MC

140. Which measure of central tendency would be the most appropriate for this distribution?

9, 2, 4, 6, 4, 7, 9, 4, 9, 11, 5

a. variance
b. median
c. standard deviation
d. mode

Ans: D
Learning Objective: 2-5
Cognitive Domain: Comprehension
Answer Location: Modality
Question Type: MC

141. Which of the following *best* describes the shape of the distribution?

4, 13, 18, 4, 6, 2, 4, 6, 4, 8

a. skewed
b. bimodal
c. symmetrical
d. flat

Ans: A
Learning Objective: 2-7
Cognitive Domain: Analysis
Answer Location: Symmetry
Question Type: MC

142. Which measure of central tendency would be the *most* appropriate for this distribution?

4, 13, 18, 4, 6, 2, 4, 6, 4, 8

a. variance
b. median
c. mean
d. skewness

Ans: B
Learning Objective: 2-5
Cognitive Domain: Comprehension
Answer Location: Symmetry
Question Type: MC