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**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?
- to test their research hypotheses
  - to calculate measures of central tendency and variability
  - to detect outliers
  - 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?
- to evaluate their research methodology
  - to assess the shape of the distribution of scores
  - to detect outliers
  - 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?
- to evaluate their research methodology
  - to assess the shape of the distribution of scores
  - to detect outliers
  - 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?
- to prove their research hypotheses
  - to define their independent and dependent variables
  - to detect outliers
  - 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?
- To test hypotheses about populations
  - To evaluate their research methodology
  - To determine whether their research hypotheses are skewed
  - 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?
- To identify outliers
  - To get an initial look at their data
  - To evaluate their research methodology
  - 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?
- To calculate inferential statistics
  - To defend their research hypotheses
  - To gain an initial understanding of their data
  - 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
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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
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**NOTE: Questions 19-20 are based on the following frequency distribution table:**

Employment status	<i>f</i>	<i>%</i>	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	<i>f</i>	%
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:**

# worked week	hours per		%
> 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	<i>f</i>	%
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	<i>f</i>	%			
> \$80000	7	_____			
\$60000 - \$80000	15	_____			
\$40000 - \$60000	19	_____			
\$20000 - \$40000	29	_____			
\$0 - \$20000	_____	_____			
<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Total</td> <td style="width: 30%; text-align: center;">86</td> <td style="width: 40%; text-align: center;">100.0%</td> </tr> </table>			Total	86	100.0%
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		%
408	18	_____
415	6	_____
510	10	_____
650	25	_____
925	_____	_____
<hr/>		
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.
- 10; .15%
  - 15; 10.0%
  - 10; 14.5%
  - 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.
- pie graph or frequency polygon
  - bar chart or histogram
  - histogram or frequency polygon
  - 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	<i>f</i>	%
Candidate A	48	39.0%
Candidate B	7	_____
Candidate C	_____	_____
<hr/>		
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	<i>f</i>	%
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	_____	_____
<hr/>		
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.
- 35; 10.5%
  - 23; 20.2%
  - 12; 30.7%
  - 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.
- pie chart
  - normal distribution
  - histogram
  - 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	<i>f</i>	%
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.
- 20; 33.9%
  - 20; 86.4%
  - 39; 52.5%
  - 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	<i>f</i>	%
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	<i>f</i>	%
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.
- 112; 40.1%
  - 112; 72.8%
  - 167; 32.6%
  - 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.
- frequency polygon; ordinal
  - bar chart; nominal
  - histogram; interval
  - 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	<i>f</i>	%
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.
- 91; 32.6%
  - 91; 72.8%
  - 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	<i>f</i>	%
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	<i>f</i>	%
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	<i>f</i>	%
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	<i>f</i>	%
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	<i>f</i>	%
Hot dog	11	13.6%
Hamburger	24	_____
Sandwich	_____	14.1%
Pizza	_____	_____
<hr/>		
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	<i>f</i>	%
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’.
- 9; 37.5%
  - 9; 68.8%
  - 29; 51.6%
  - 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.
- frequency polygon; ordinal
  - bar chart; nominal
  - histogram; interval
  - 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:**

	<i>f</i>	%
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.
- 5; 6.8%
  - 5; 32.9%
  - 17; 23.3%
  - 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:**

	<i>f</i>	%
Baseball	37	50.7%
Basketball	19	_____
Tennis	_____	16.4%
Soccer	_____	_____
<hr/>		
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	_____	_____
<hr/>		
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.
- 19; 13.7%
  - 19; 45.3%
  - 49; 35.3%
  - 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.
- frequency polygon; ordinal
  - bar chart; nominal
  - histogram; interval
  - 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	_____	_____
<hr/>		
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		%			
3	28	31.5%			
2	35				
1		10.1%			
0					
<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: left; width: 150px;">Total</td> <td style="text-align: center; width: 150px;">89</td> <td style="text-align: right;">100.0%</td> </tr> </table>			Total	89	100.0%
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		%
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 not 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 \_\_\_\_\_.

	<u># arrests</u>	<u>f</u>	<u>%</u>	<u>Cum %</u>	Total
100.0%	4+	1	5.0%	100.0%	20
	3	1	_____	_____	
	2	3	_____	_____	
a. 5.0%	1	7	35.0%	75.0%	
b. 20.0%	0	8	40.0%	40.0%	
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%
<hr/>			
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 \_\_\_\_\_.

Total	38	100.0%
-------	----	--------

- a. 15.8%
- b. 34.2%

	<u>Year in school</u>	<u>f</u>	<u>%</u>	<u>Cum %</u>
c. 78.9%				
d. 94.7%	12th	2	5.3%	100.0%
Ans: D	11th	6	_____	_____
Learning Objective:	10th	7	_____	_____ 2-2
Cognitive Domain:	9th	10	26.3%	60.5% Analysis
Answer Location:	8th	13	34.2%	34.2% 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%
<hr/>			
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 \_\_\_\_\_.

Total	114	100.0%
-------	-----	--------

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

Ans: D

Learning Objective: 2-2

Cognitive Domain: Grade f % Cum % Analysis  
 Answer Location: What percentage of the sample has each value of the variable? Question Type: MC  
 A 19 16.7% 100.0%  
 B 42 \_\_\_\_\_  
 C 27 \_\_\_\_\_  
 D 16 14.0% 22.8%  
 F 10 8.8% 8.8%

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%
<hr/>			
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 \_\_\_\_\_.

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 distribution a rating of cumulative with a rating of

Rating	<i>f</i>	%	Cum %
Excellent	33	14.2%	100.0%
Very good	52	_____	_____
Good	86	_____	_____
Fair	41	17.7%	26.3%
Poor	20	8.6%	8.6%
<hr/>			
Rating	<i>f</i>		Cum %
Excellent	33	14.2%	100.0%
Very good	52	_____	_____
Good	86	_____	_____
Fair	41	17.7%	26.3%
Poor	20	8.6%	8.6%
<hr/>			
Total	232	100.0%	

lanks in this frequency table, the percentage ('%') for 'Good' is \_\_\_\_\_; the percent ('Cum %') associated 'Good' is \_\_\_\_\_.

- 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	<i>f</i>	%	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	<i>f</i>	%	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 not one of the three aspects of distributions discussed in the textbook? a.
- 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 not 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.
- 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.
- 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.
- 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)
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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.

- 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.

- 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.

- 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.

- 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
- flat
  - skewed
  - abnormal
  - 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
- flat
  - skewed
  - abnormal
  - 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?
- peaked
  - bimodal
  - normal
  - 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
- peaked
  - bimodal
  - normal
  - flat

Ans: A

Learning Objective: 2-9

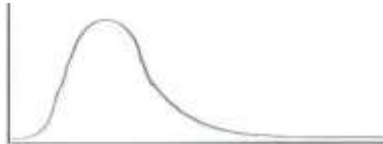
Cognitive Domain: Application

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 not describe the shape of this distribution?



- a. normal
- b. symmetrical
- c. unimodal



d. skewed

Ans: D

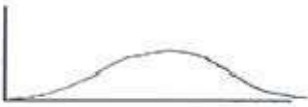
Learning Objective: 2-7

Cognitive Domain: Comprehension

Answer Location: Symmetry Question

Type: MC

129. Which of the following best 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

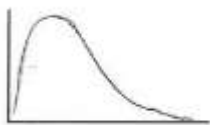
Learning Objective: 2-9

Cognitive Domain: Comprehension

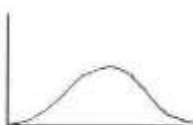
Answer Location: Variability

Question Type: MC

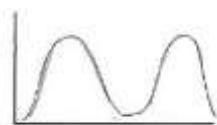
131. A pollster finds that people are either strongly in favor of abortion or are strongly opposed. Which of these best describes the distribution of attitudes?



A



B



C



D a.

A

- b. B
- c. C
- d. D

Ans: C

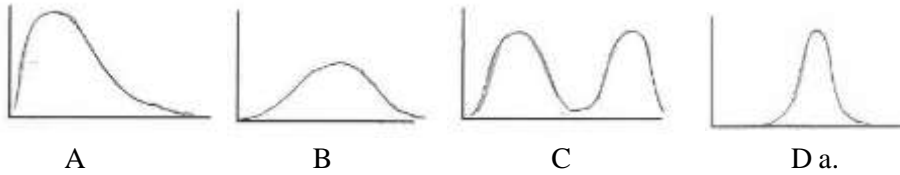
Learning Objective: 2-7

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. B
- c. C
- d. D

Ans: D

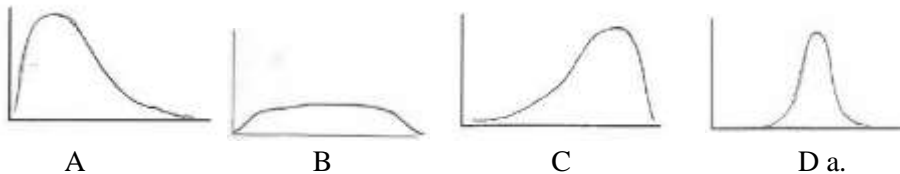
Learning Objective: 2-7

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. B
- c. C
- d. D

Ans: C

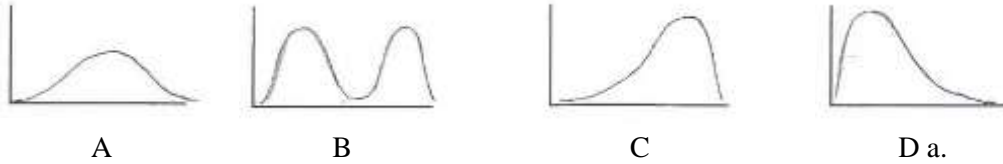
Learning Objective: 2-7

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. 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