Exam

Name_____

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

TABLE 2-5

The following are the durations in minutes of a sample of long-distance phone calls made within the continental United States reported by one long-distance carrier.

Time (in Minutes)	Relative Frequency
0 but less than 5	0.37
5 but less than 10	0.22
10 but less than 15	0.15
15 but less than 20	0.10
20 but less than 25	0.07
25 but less than 30	0.07
30 or more	0.02

1) Referring to Table 2-5, what is the cumulative relative frequency for the percentage of calls that lasted under 20 minutes? 1) _____

A) 0.59 B) 0.84 C) 0.76 D) 0.10

Answer: B
Explanation: A)
B)
C)
D)

2) You have collected data on the monthly seasonally adjusted civilian unemployment rate for the United States from 1998 to 2007. Which of the following is the best for presenting the data? 2) _____

A) a stem-and-leaf display B) a side-by-side bar chart
C) a contingency table D) a time-series plot

Answer: D
Explanation: A)
B)
C)
D)

TABLE 2-5

The following are the durations in minutes of a sample of long-distance phone calls made within the continental United States reported by one long-distance carrier.

Time (in Minutes)	Relative Frequency
0 but less than 5	0.37
5 but less than 10	0.22
10 but less than 15	0.15
15 but less than 20	0.10
20 but less than 25	0.07
25 but less than 30	0.07
30 or more	0.02

3) Referring to Table 2-5, what is the cumulative relative frequency for the percentage of calls that lasted 10 minutes or more? 3) _____

A) 0.16 B) 0.90 C) 0.24 D) 0.41

Answer: D

Explanation: A)
B)
C)
D)

4) You have collected data on the annual average amount of cash rebate offered by 6 different brands of automobiles sold in the United States in 2006 and 2007. Which of the following is the best for presenting the data? 4) _____

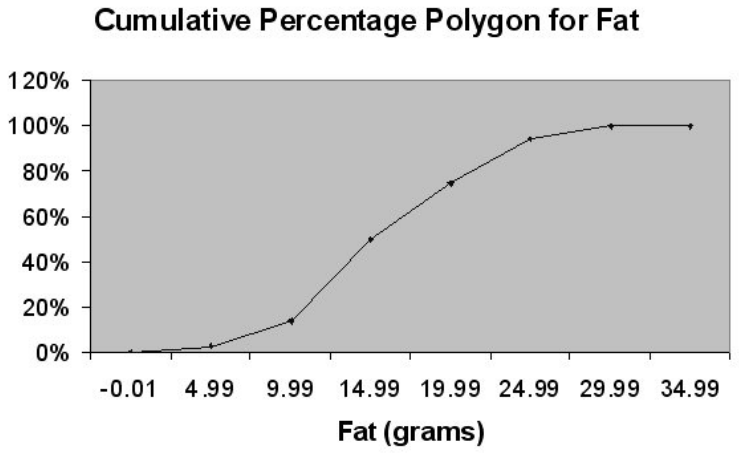
A) a side-by-side bar chart B) a time-series plot
C) a contingency table D) a stem-and-leaf display

Answer: A

Explanation: A)
B)
C)
D)

TABLE 2-15

The figure below is the ogive for the amount of fat (in grams) for a sample of 36 pizzas products where the upper boundaries of the intervals are: 5, 10, 15, 20, 25, and 30.



5) Referring to Table 2-15, what percentage of pizza products contains between 10 and 25 grams of fat? 5) _____

A) 62% B) 81% C) 44% D) 14%

Answer: B

Explanation: A)
B)
C)
D)

TABLE 2-5

The following are the durations in minutes of a sample of long-distance phone calls made within the continental United States reported by one long-distance carrier.

Time (in Minutes)	Relative Frequency
0 but less than 5	0.37
5 but less than 10	0.22
10 but less than 15	0.15
15 but less than 20	0.10
20 but less than 25	0.07
25 but less than 30	0.07
30 or more	0.02

6) Referring to Table 2-5, if 100 calls were randomly sampled, how many calls lasted 15 minutes or longer? 6) _____

A) 14 B) 74 C) 26 D) 10

Answer: C

Explanation: A)
B)
C)
D)

7) Referring to Table 2-5, what is the width of each class? 7) _____

A) 2% B) 100% C) 5 minutes D) 1 minute

Answer: C

Explanation: A)
B)
C)
D)

TABLE 2-2

At a meeting of information systems officers for regional offices of a national company, a survey was taken to determine the number of employees the officers supervise in the operation of their departments, where *X* is the number of employees overseen by each information systems officer.

X	*f*
1	7
2	5
3	11
4	8
5	9

8) Referring to Table 2-2, how many regional offices are represented in the survey results? 8) _____

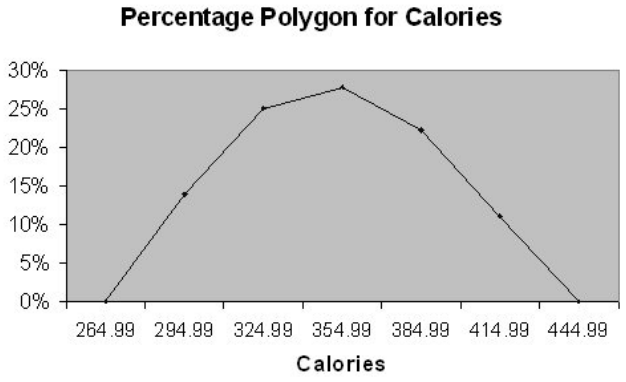
A) 11 B) 5 C) 15 D) 40

Answer: D

Explanation: A)
B)
C)
D)

TABLE 2-16

The figure below is the percentage polygon for the amount of calories for a sample of 36 pizzas products where the upper limits of the intervals are: 310, 340, 370, 400 and 430.



9) Referring to Table 2-16, roughly what percentage of pizza products contains between 400 and 430 calories? 9) _____

A) 89% B) 100% C) 0% D) 11%

Answer: D

Explanation: A)
B)
C)
D)

TABLE 2-5

The following are the durations in minutes of a sample of long-distance phone calls made within the continental United States reported by one long-distance carrier.

Time (in Minutes)	Relative Frequency
0 but less than 5	0.37
5 but less than 10	0.22
10 but less than 15	0.15
15 but less than 20	0.10
20 but less than 25	0.07
25 but less than 30	0.07
30 or more	0.02

10) Referring to Table 2-5, if 100 calls were sampled, _____ of them would have lasted less than 5 minutes or at least 30 minutes or more. 10) _____

A) 39 B) 35

C) 37 D) none of the above

Answer: A

Explanation: A)
B)
C)
D)

TABLE 2-1

An insurance company evaluates many numerical variables about a person before deciding on an appropriate rate for automobile insurance. A representative from a local insurance agency selected a random sample of insured drivers and recorded, *X,* the number of claims each made in the last 3 years, with the following results.

X	*f*
1	14
2	18
3	12
4	5
5	1

11) Referring to Table 2-1, how many total claims are represented in the sample? 11) _____
A) 50 B) 15 C) 111 D) 250
Answer: C
Explanation: A)
B)
C)
D)

12) Referring to Table 2-1, how many drivers are represented in the sample? 12) _____
A) 15 B) 5 C) 18 D) 50
Answer: D
Explanation: A)
B)
C)
D)

TABLE 2-6

A sample of 200 students at a Big-Ten university was taken after the midterm to ask them whether they went bar hopping the weekend before the midterm or spent the weekend studying, and whether they did well or poorly on the midterm. The following table contains the result.

	Did Well in Midterm	Did Poorly in Midterm
Studying for Exam	80	20
Went Bar Hopping	30	70

13) Referring to Table 2-6, _____ percent of the students in the sample went bar hopping the weekend before the midterm and did well on the midterm. 13) _____
A) 27.27 B) 15 C) 30 D) 50
Answer: B
Explanation: A)
B)
C)
D)

14) Data on the number of part-time hours students at a public university worked in a week were collected. Which of the following is the best chart for presenting the information? 14) _____

A) a percentage polygon
B) a pie chart
C) a Pareto diagram
D) a percentage table

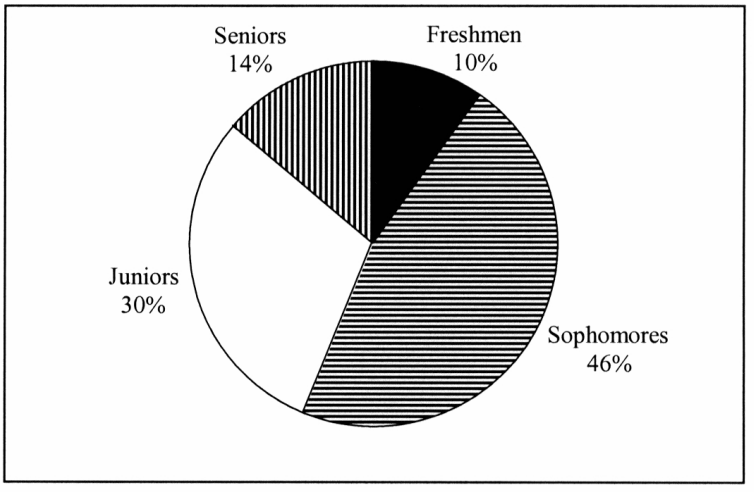
Answer: A
Explanation: A)
B)
C)
D)

15) When constructing charts, the following is plotted at the class midpoints: 15) _____

A) percentage polygons.
B) cumulative relative frequency ogives.
C) frequency histograms.
D) all of the above

Answer: A
Explanation: A)
B)
C)
D)

16) A professor of economics at a small Texas university wanted to determine what year in school students were taking his tough economics course. Shown below is a pie chart of the results. What percentage of the class took the course prior to reaching their senior year? 16) _____



A) 86%
B) 14%
C) 54%
D) 44%

Answer: A
Explanation: A)
B)
C)
D)

TABLE 2-6

A sample of 200 students at a Big-Ten university was taken after the midterm to ask them whether they went bar hopping the weekend before the midterm or spent the weekend studying, and whether they did well or poorly on the midterm. The following table contains the result.

	Did Well in Midterm	Did Poorly in Midterm
Studying for Exam	80	20
Went Bar Hopping	30	70

17) Referring to Table 2-6, of those who did well on the midterm in the sample, _____ percent of them went bar hopping the weekend before the midterm. 17) _____

A) 27.27 B) 50 C) 15 D) 30

Answer: A

Explanation: A)
B)
C)
D)

18) Referring to Table 2-6, if the sample is a good representation of the population, we can expect _____ percent of the students in the population to spend the weekend studying and do poorly on the midterm. 18) _____

A) 45 B) 10 C) 20 D) 50

Answer: B

Explanation: A)
B)
C)
D)

TABLE 2-5

The following are the durations in minutes of a sample of long-distance phone calls made within the continental United States reported by one long-distance carrier.

Time (in Minutes)	Relative Frequency
0 but less than 5	0.37
5 but less than 10	0.22
10 but less than 15	0.15
15 but less than 20	0.10
20 but less than 25	0.07
25 but less than 30	0.07
30 or more	0.02

19) Referring to Table 2-5, if 100 calls were randomly sampled, _____ of them would have lasted at least 15 minutes but less than 20 minutes. 19) _____

A) 0.10 B) 0.16 C) 16 D) 10

Answer: D

Explanation: A)
B)
C)
D)

20) You have collected data on the number of U.S. households actively using online banking and/or online bill payment from 1995 to 2007. Which of the following is the best for presenting the data? 20) _____

A) a stem-and-leaf display
B) a time-series plot
C) a side-by-side bar chart
D) a pie chart

Answer: B
Explanation: A)
B)
C)
D)

21) When studying the simultaneous responses to two categorical questions, we should set up a 21) _____

A) frequency distribution table.
B) histogram.
C) contingency table.
D) cumulative percentage distribution table.

Answer: C
Explanation: A)
B)
C)
D)

TABLE 2-4

A survey was conducted to determine how people rated the quality of programming available on television. Respondents were asked to rate the overall quality from 0 (no quality at all) to 100 (extremely good quality). The stem-and-leaf display of the data is shown below.

Stem	Leaves
3	24
4	03478999
5	0112345
6	12566
7	01
8	
9	2

22) Referring to Table 2-4, what percentage of the respondents rated overall television quality with a rating between 50 and 75? 22) _____

A) 40
B) 11
C) 56
D) 44

Answer: C
Explanation: A)
B)
C)
D)

TABLE 2-6

A sample of 200 students at a Big-Ten university was taken after the midterm to ask them whether they went bar hopping the weekend before the midterm or spent the weekend studying, and whether they did well or poorly on the midterm. The following table contains the result.

	Did Well in Midterm	Did Poorly in Midterm
Studying for Exam	80	20
Went Bar Hopping	30	70

23) Referring to Table 2-6, _____ percent of the students in the sample spent the weekend studying and did well on the midterm. 23) _____

A) 40 B) 80 C) 72.72 D) 50

Answer: A

Explanation: A)
B)
C)
D)

24) A survey of 150 executives were asked what they think is the most common mistake candidates make during job interviews. Six different mistakes were given. Which of the following is the best for presenting the information? 24) _____

A) a bar chart B) a stem-and-leaf display
C) a contingency table D) a histogram

Answer: A

Explanation: A)
B)
C)
D)

25) When polygons or histograms are constructed, which axis must show the true zero or "origin"? 25) _____

A) the vertical axis B) the horizontal axis
C) both the horizontal and vertical axes D) neither the horizontal nor the vertical axis

Answer: A

Explanation: A)
B)
C)
D)

26) You have collected data on the approximate retail price (in $) and the energy cost per year (in $) of 15 refrigerators. Which of the following is the best for presenting the data? 26) _____

A) a side-by-side bar chart B) a pie chart
C) a scatter diagram D) a contingency table

Answer: C

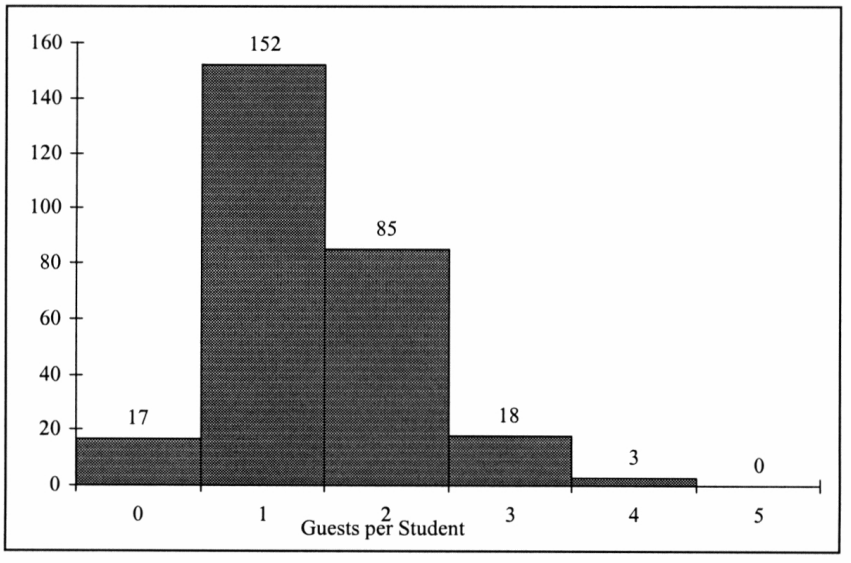
Explanation: A)
B)
C)
D)

27) The width of each bar in a histogram corresponds to the 27) _____
A) percentage of observations in each class.
B) midpoint of each class.
C) number of observations in each class.
D) differences between the boundaries of the class.

Answer: D
Explanation: A)
B)
C)
D)

TABLE 2-3

Every spring semester, the School of Business coordinates a luncheon with local business leaders for graduating seniors, their families, and their friends. Corporate sponsorship pays for the lunches of each of the seniors, but students have to purchase tickets to cover the cost of lunches served to guests they bring with them. The following histogram represents the attendance at the senior luncheon, where *X* is the number of guests each student invited to the luncheon and *f* is the number of students in each category.



28) Referring to the histogram from Table 2-3, if all the tickets purchased were used, how many guests attended the luncheon? 28) _____
A) 275 B) 388 C) 4 D) 152

Answer: B
Explanation: A)
B) The total number of guests is $\sum_{i=1}^{6} X_i f_i$
C)
D)

TABLE 2-5

The following are the durations in minutes of a sample of long-distance phone calls made within the continental United States reported by one long-distance carrier.

Time (in Minutes)	Relative Frequency
0 but less than 5	0.37
5 but less than 10	0.22
10 but less than 15	0.15
15 but less than 20	0.10
20 but less than 25	0.07
25 but less than 30	0.07
30 or more	0.02

29) Referring to Table 2-5, if 1,000 calls were randomly sampled, how many calls lasted under 10 minutes? 29) _____

A) 220 B) 410 C) 370 D) 590

Answer: D

Explanation: A)
B)
C)
D)

TABLE 2-6

A sample of 200 students at a Big-Ten university was taken after the midterm to ask them whether they went bar hopping the weekend before the midterm or spent the weekend studying, and whether they did well or poorly on the midterm. The following table contains the result.

	Did Well in Midterm	Did Poorly in Midterm
Studying for Exam	80	20
Went Bar Hopping	30	70

30) Referring to Table 2-6, of those who went bar hopping the weekend before the midterm in the sample, _____ percent of them did well on the midterm. 30) _____

A) 27.27 B) 55 C) 15 D) 30

Answer: D

Explanation: A)
B)
C)
D)

31) A type of vertical bar chart in which the categories are plotted in the descending rank order of the magnitude of their frequencies is called a 31) _____

A) dot plot. B) pie chart.
C) Pareto diagram. D) contingency table.

Answer: C

Explanation: A)
B)
C)
D)

32) Data on 1,500 students' height were collected at a larger university in the East Coast. Which of the following is the best chart for presenting the information? 32) _____

A) a pie chart
B) a side-by-side bar chart
C) a histogram
D) a Pareto diagram

Answer: C
Explanation: A)
B)
C)
D)

TABLE 2-5

The following are the durations in minutes of a sample of long-distance phone calls made within the continental United States reported by one long-distance carrier.

Time (in Minutes)	Relative Frequency
0 but less than 5	0.37
5 but less than 10	0.22
10 but less than 15	0.15
15 but less than 20	0.10
20 but less than 25	0.07
25 but less than 30	0.07
30 or more	0.02

33) Referring to Table 2-5, if 10 calls lasted 30 minutes or more, how many calls lasted less than 5 minutes? 33) _____

A) 185 B) 500 C) 295 D) 10

Answer: A
Explanation: A)
B)
C)
D)

34) Referring to Table 2-5, if 100 calls were sampled, _____ of them would have lasted 20 minutes or more. 34) _____

A) 26
B) 74
C) 16
D) none of the above

Answer: C
Explanation: A)
B)
C)
D)

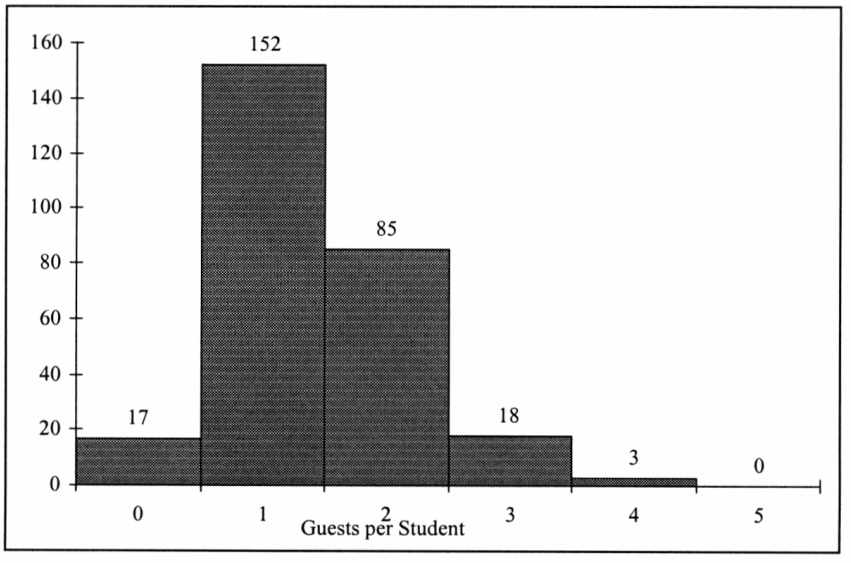
35) You have collected information on the market share of 5 different search engines used by U.S. Internet users in May 2007. Which of the following is the best for presenting the information? 35) _____

A) a contingency table B) a histogram
C) a stem-and-leaf display D) a pie chart

Answer: D
Explanation: A)
B)
C)
D)

TABLE 2-3

Every spring semester, the School of Business coordinates a luncheon with local business leaders for graduating seniors, their families, and their friends. Corporate sponsorship pays for the lunches of each of the seniors, but students have to purchase tickets to cover the cost of lunches served to guests they bring with them. The following histogram represents the attendance at the senior luncheon, where *X* is the number of guests each student invited to the luncheon and *f* is the number of students in each category.



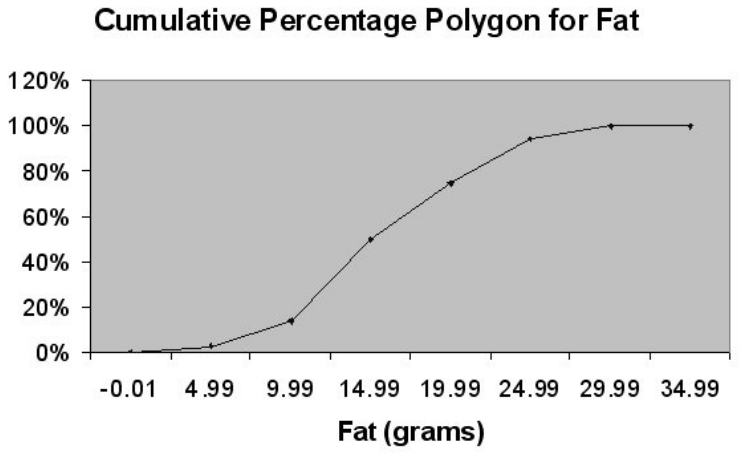
36) Referring to the histogram from Table 2-3, how many graduating seniors attended the luncheon? 36) _____

A) 388 B) 4 C) 275 D) 152

Answer: C
Explanation: A)
B)
C) The number of graduating seniors is the sum of all the frequencies, *f*.
D)

TABLE 2-15

The figure below is the ogive for the amount of fat (in grams) for a sample of 36 pizzas products where the upper boundaries of the intervals are: 5, 10, 15, 20, 25, and 30.



37) Referring to Table 2-15, roughly what percentage of pizza products contains less than 10 grams of fat? 37) _____

A) 75% B) 50% C) 14% D) 3%

Answer: C

Explanation: A)
B)
C)
D)

38) You have collected data on the responses to two questions asked in a survey of 40 college students majoring in business — What is your gender (Male = M; Female = F) and What is your major (Accountancy = A; Computer Information Systems = C; Marketing = M). Which of the following is the best for presenting the data? 38) _____

A) a time-series plot B) a Pareto diagram

C) a contingency table D) a stem-and-leaf display

Answer: C

Explanation: A)
B)
C)
D)

TABLE 2-4

A survey was conducted to determine how people rated the quality of programming available on television. Respondents were asked to rate the overall quality from 0 (no quality at all) to 100 (extremely good quality). The stem-and-leaf display of the data is shown below.

Stem	Leaves
3	24
4	03478999
5	0112345
6	12566
7	01
8	
9	2

39) Referring to Table 2-4, what percentage of the respondents rated overall television quality with a rating of 50 or below? 39) _____

A) 44 B) 40 C) 56 D) 11

Answer: A

Explanation: A)
B)
C)
D)

TABLE 2-6

A sample of 200 students at a Big-Ten university was taken after the midterm to ask them whether they went bar hopping the weekend before the midterm or spent the weekend studying, and whether they did well or poorly on the midterm. The following table contains the result.

	Did Well in Midterm	Did Poorly in Midterm
Studying for Exam	80	20
Went Bar Hopping	30	70

40) Referring to Table 2-6, if the sample is a good representation of the population, we can expect _____ percent of those who spent the weekend studying to do poorly on the midterm. 40) _____

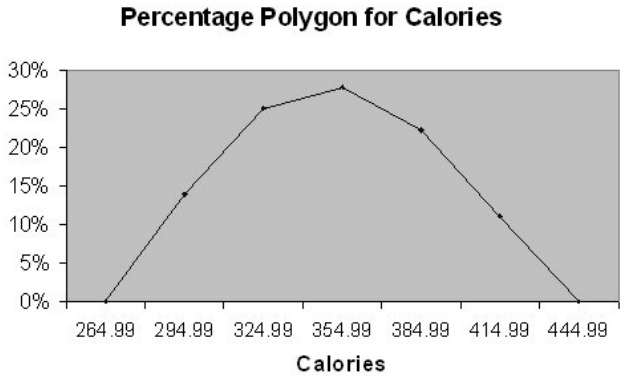
A) 20 B) 45 C) 10 D) 50

Answer: A

Explanation: A)
B)
C)
D)

TABLE 2-16

The figure below is the percentage polygon for the amount of calories for a sample of 36 pizzas products where the upper limits of the intervals are: 310, 340, 370, 400 and 430.



41) Referring to Table 2-16, roughly what percentage of pizza products contains at least 340 calories? 41) _____
A) 61% B) 25% C) 39% D) 28%

Answer: A
Explanation: A)
B)
C)
D)

TABLE 2-6

A sample of 200 students at a Big-Ten university was taken after the midterm to ask them whether they went bar hopping the weekend before the midterm or spent the weekend studying, and whether they did well or poorly on the midterm. The following table contains the result.

	Did Well in Midterm	Did Poorly in Midterm
Studying for Exam	80	20
Went Bar Hopping	30	70

42) Referring to Table 2-6, if the sample is a good representation of the population, we can expect _____ percent of those who did poorly on the midterm to have spent the weekend studying. 42) _____
A) 22.22 B) 45 C) 50 D) 10

Answer: A
Explanation: A)
B)
C)
D)

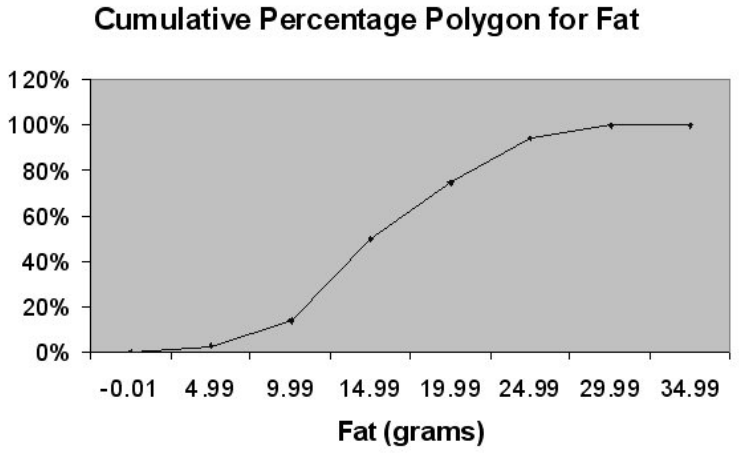
43) You have collected information on the consumption by the 15 largest coffee-consuming nations. Which of the following is the best for presenting the share of the consumption? 43) _____

A) a side-by-side bar chart B) a contingency table
C) a pie chart D) a Pareto diagram

Answer: D
Explanation: A)
B)
C)
D) NOTE: Even though a pie chart can also be used, the Pareto diagram is preferable for separating the "vital few" from the "trivial many."

TABLE 2-15

The figure below is the ogive for the amount of fat (in grams) for a sample of 36 pizzas products where the upper boundaries of the intervals are: 5, 10, 15, 20, 25, and 30.



44) Referring to Table 2-15, what percentage of pizza products contains at least 20 grams of fat? 44) _____

A) 96% B) 75% C) 5% D) 25%

Answer: D
Explanation: A)
B)
C)
D)

TABLE 2-4

A survey was conducted to determine how people rated the quality of programming available on television. Respondents were asked to rate the overall quality from 0 (no quality at all) to 100 (extremely good quality). The stem-and-leaf display of the data is shown below.

Stem	Leaves
3	24
4	03478999
5	0112345
6	12566
7	01
8	
9	2

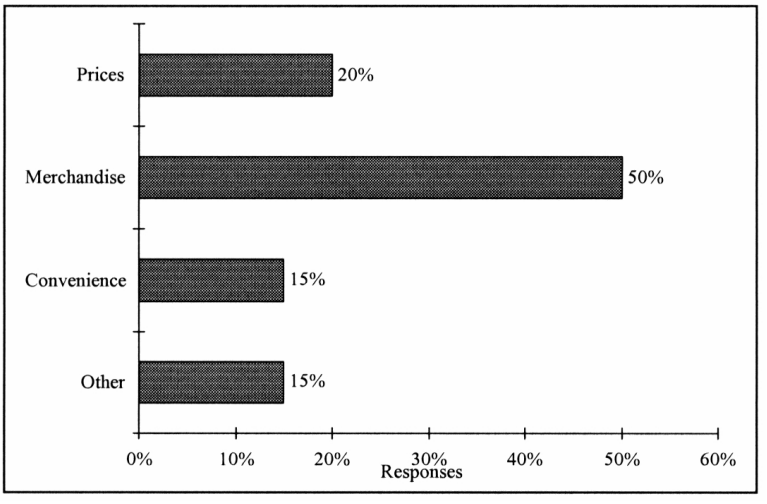
45) Referring to Table 2-4, what percentage of the respondents rated overall television quality with a rating of 80 or above? 45) _____

A) 0 B) 96 C) 100 D) 4

Answer: D

Explanation: A)
B)
C)
D)

46) Retailers are always interested in determining why a customer selected their store to make a purchase. A sporting goods retailer conducted a customer survey to determine why its customers shopped at the store. The results are shown in the bar chart below. What proportion of the customers responded that they shopped at the store because of the merchandise or the convenience? 46) _____



A) 65% B) 85% C) 35% D) 50%

Answer: A

Explanation: A)
B)
C)
D)

TABLE 2-2

At a meeting of information systems officers for regional offices of a national company, a survey was taken to determine the number of employees the officers supervise in the operation of their departments, where *X* is the number of employees overseen by each information systems officer.

X	*f*
1	7
2	5
3	11
4	8
5	9

47) Referring to Table 2-2, across all of the regional offices, how many total employees were supervised by those surveyed? 47) _____

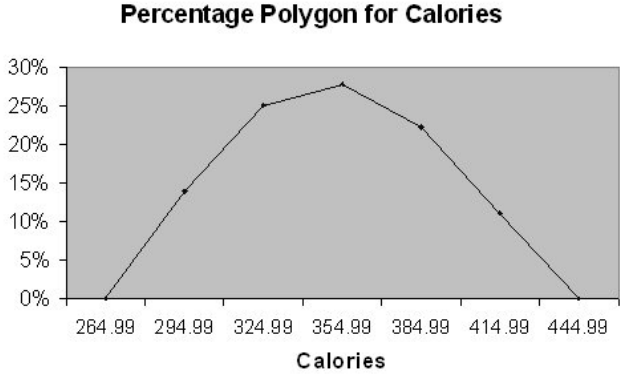
A) 200 B) 40 C) 15 D) 127

Answer: D

Explanation: A)
B)
C)
D)

TABLE 2-16

The figure below is the percentage polygon for the amount of calories for a sample of 36 pizzas products where the upper limits of the intervals are: 310, 340, 370, 400 and 430.



48) Referring to Table 2-16, roughly what percentage of pizza products contains between 340 and 400 calories? 48) _____

A) 50% B) 28% C) 25% D) 22%

Answer: A

Explanation: A)
B)
C)
D)

49) In a contingency table, the number of rows and columns 49) _____

A) must add to 100%. B) must always be 2.

C) must always be the same. D) none of the above

Answer: D

Explanation: A)

B)

C)

D)

50) You have collected information on the market share of 5 different search engines used by U.S. Internet users in May 2007. Which of the following is the best for presenting the information? 50) _____

A) a stem-and-leaf display B) a pie chart

C) a histogram D) a contingency table

Answer: B

Explanation: A)

B)

C)

D)

TABLE 2-5

The following are the durations in minutes of a sample of long-distance phone calls made within the continental United States reported by one long-distance carrier.

Time (in Minutes)	Relative Frequency
0 but less than 5	0.37
5 but less than 10	0.22
10 but less than 15	0.15
15 but less than 20	0.10
20 but less than 25	0.07
25 but less than 30	0.07
30 or more	0.02

51) Referring to Table 2-5, if 100 calls were sampled, _____ of them would have lasted less than 15 minutes. 51) _____

A) 10 B) 26

C) 74 D) none of the above

Answer: C

Explanation: A)

B)

C)

D)

52) Data on the number of credit hours of 20,000 students at a public university enrolled in a Spring semester were collected. Which of the following is the best for presenting the information? 52) _____

A) a pie chart
B) a contingency table
C) a Pareto diagram
D) a stem-and-leaf display

Answer: D

Explanation: A)
B)
C)
D)

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

TABLE 2-17

The following table presents total retail sales in millions of dollars for the leading apparel companies during April 2001 and April 2002.

Apparel Company	April 01	April 02
Gap	1,159.00	962
TJX	781.7	899
Limited	596.5	620.4
Kohl's	544.9	678.9
Nordstrom	402.6	418.3
Talbots	139.9	130.1
AnnTaylor	114.2	124.8

53) Referring to Table 2-17, construct a table of column percentages. 53) _____

Answer:

Apparel Company	April 2001	April 2002
Gap	31.00%	25.09%
TJX	20.91%	23.45%
Limited	15.95%	16.18%
Kohl's	14.57%	17.71%
Nordstrom	10.77%	10.91%
Talbots	3.74%	3.39%
AnnTaylor	3.05%	3.26%
Total	100.00%	100.00%

Explanation:

TABLE 2-11

The ordered array below resulted from taking a sample of 25 batches of 500 computer chips and determining how many in each batch were defective.

Defects

1	2	4	4	5	5	6	7	9	9	12	12	15
17	20	21	23	23	25	26	27	27	28	29	29	

54) Referring to Table 2-11, if a frequency distribution for the defects data is constructed, using "0 but less than 5" as the first class, the relative frequency of the "15 but less than 20" class would be _____. 54) _____

Answer: 0.08 or 8% or 2/25
Explanation:

TABLE 2-12

The table below contains the opinions of a sample of 200 people broken down by gender about the latest congressional plan to eliminate anti-trust exemptions for professional baseball.

	For	Neutral	Against	Totals
Female	38	54	12	104
Male	12	36	48	96
Totals	50	90	60	200

55) Referring to Table 2-12, of the females in the sample, _____ percent were either neutral or against the plan. 55) _____

Answer: 63.46% or (51.92+11.54)%
Explanation:

TABLE 2-9

The frequency distribution below represents the rents of 250 randomly selected federally subsidized apartments in Minneapolis.

Rent in $	Frequency
300 but less than 400	113
400 but less than 500	85
500 but less than 600	32
600 but less than 700	16
700 but less than 800	4

56) Referring to Table 2-9, _____ percent of the apartments rented for at least $500. 56) _____

Answer: 20.8% or 52/250
Explanation:

TABLE 2-12

The table below contains the opinions of a sample of 200 people broken down by gender about the latest congressional plan to eliminate anti-trust exemptions for professional baseball.

	For	Neutral	Against	Totals
Female	38	54	12	104
Male	12	36	48	96
Totals	50	90	60	200

57) Referring to Table 2-12, _____ percent of the 200 were males who were not against the plan. 57) _____

Answer: 24%
Explanation:

58) It is essential that each class grouping or interval in a frequency distribution be _____. 58) _____

Answer: non-overlapping and of equal width
Explanation:

59) When comparing two or more large batches of numerical data, the distributions being developed should use the same _____. 59) _____

Answer: class boundaries
Explanation:

TABLE 2-14

The table below contains the number of people who own a portable DVD player in a sample of 600 broken down by gender.

Own a Portable DVD Player	Male	Female
Yes	96	40
No	224	240

60) Referring to Table 2-14, _____ percent of the 600 were females who owned a portable DVD. 60) _____

Answer: 6.67%
Explanation:

TABLE 2-7

The Stem-and-Leaf display below contains data on the number of months between the date a civil suit is filed and when the case is actually adjudicated for 50 cases heard in superior court.

Stem	Leaves
1L	2 3 4 4 4
1H	7 8 9 9
2L	2 2 2 2 3 4
2H	5 5 6 7 8 8 8 9
3L	0 0 1 1 1 3
3H	5 7 7 8
4L	0 2 3 4
4H	5 5 7 9
5L	1 1 2 4
5H	6 6
6L	1 5
6H	8

Note: 1L means the "low teens" — 10, 11, 12, 13, or 14; 1H means the "high teens" — 15, 16, 17, 18, or 19; 2L means the "low twenties" — 20, 21, 22, 23, or 24, etc.

61) Referring to Table 2-7, if a frequency distribution with equal sized classes was made from this data, and the first class was "10 but less than 20," the frequency of that class would be _____. 61) _____

Answer: 9
Explanation:

TABLE 2-14

The table below contains the number of people who own a portable DVD player in a sample of 600 broken down by gender.

Own a Portable DVD Player	Male	Female
Yes	96	40
No	224	240

62) Referring to Table 2-14, of the males in the sample, _____ percent owned a portable DVD. 62) _____

Answer: 30%
Explanation:

63) Referring to Table 2-14, _____ percent of the 600 owned a portable DVD. 63) _____

Answer: 22.67%
Explanation:

TABLE 2-13

Given below is the stem-and-leaf display representing the amount of detergent used in gallons (with leaves in 10ths of gallons) in a month by 25 drive-through car wash operations in Phoenix.

Stem	Leaves
9	147
10	02238
11	135566777
12	223489
13	02

64) Referring to Table 2-13, if a relative frequency or percentage distribution for the detergent data is constructed, using "9.0 but less than 10.0 gallons" as the first class, what percentage of drive-through car wash operations use at least 10 gallons of detergent in a month? 64) _____

Answer: 88%
Explanation:

TABLE 2-12

The table below contains the opinions of a sample of 200 people broken down by gender about the latest congressional plan to eliminate anti-trust exemptions for professional baseball.

	For	Neutral	Against	Totals
Female	38	54	12	104
Male	12	36	48	96
Totals	50	90	60	200

65) Referring to Table 2-12, of those for the plan in the sample, _____ percent were females. 65) _____

Answer: 76%
Explanation:

TABLE 2-11

The ordered array below resulted from taking a sample of 25 batches of 500 computer chips and determining how many in each batch were defective.

Defects

1	2	4	4	5	5	6	7	9	9	12	12	15
17	20	21	23	23	25	26	27	27	28	29	29	

66) Referring to Table 2-11, construct a relative frequency or percentage distribution for the defects data, using "0 but less than 5" as the first class. 66) _____

Answer:

Defects	Percentage
0 but less than 5	16
5 but less than 10	24
10 but less than 15	8
15 but less than 20	8
20 but less than 25	16
25 but less than 30	28

Explanation:

67) The width of each class grouping or interval in a frequency distribution should be _____. 67) _____

Answer: the same or equal
Explanation:

TABLE 2-13

Given below is the stem-and-leaf display representing the amount of detergent used in gallons (with leaves in 10ths of gallons) in a month by 25 drive-through car wash operations in Phoenix.

Stem	Leaves
9	147
10	02238
11	135566777
12	223489
13	02

68) Referring to Table 2-13, if a relative frequency or percentage distribution for the detergent data is constructed, using "9.0 but less than 10.0 gallons" as the first class, what percentage of drive-through car wash operations use at least 10 gallons but less than 13 gallons of detergent in a month? 68) _____

Answer: 80%
Explanation:

TABLE 2-8

The Stem-and-Leaf display represents the number of times in a year that a random sample of 100 "lifetime" members of a health club actually visited the facility.

Stem	Leaves
0	012222333333445666666667789999
1	1111222234444455669999
2	00011223455556889
3	0000446799
4	011345567
5	0077
6	8
7	67
8	3
9	0247

69) Referring to Table 2-8, if a frequency distribution with equal sized classes was made from this data, and the first class was "0 but less than 10," the relative frequency of the last class would be _____. 69) _____

Answer: 4% or 0.04 or 4/100
Explanation:

TABLE 2-17

The following table presents total retail sales in millions of dollars for the leading apparel companies during April 2001 and April 2002.

Apparel Company	April 01	April 02
Gap	1,159.00	962
TJX	781.7	899
Limited	596.5	620.4
Kohl's	544.9	678.9
Nordstrom	402.6	418.3
Talbots	139.9	130.1
AnnTaylor	114.2	124.8

70) Referring to Table 2-17, among the 8 stores, _____ saw a sales decline. 70) _____

Answer: Gap and Talbots
Explanation:

TABLE 2-14

The table below contains the number of people who own a portable DVD player in a sample of 600 broken down by gender.

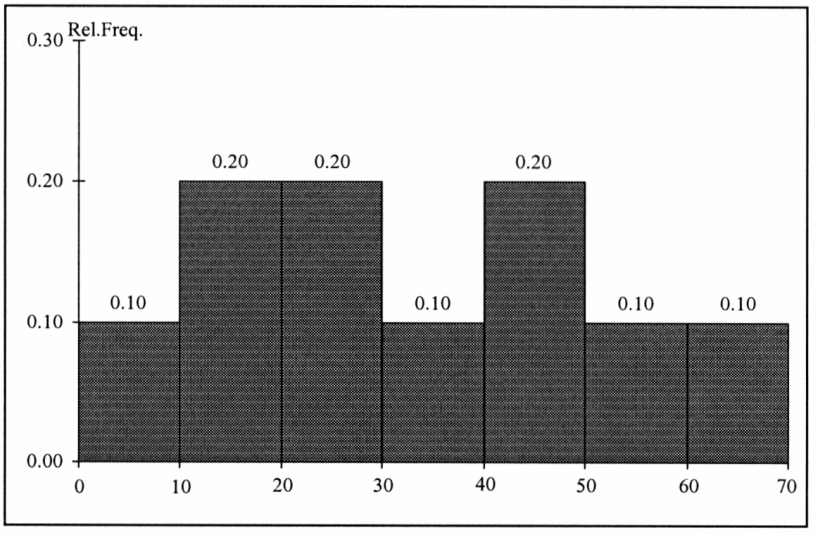
Own a Portable DVD Player	Male	Female
Yes	96	40
No	224	240

71) Referring to Table 2-14, of those who did not own a portable DVD in the sample, _____ percent were males. 71) _____

Answer: 48.28%
Explanation:

TABLE 2-10

The histogram below represents scores achieved by 200 job applicants on a personality profile.



72) Referring to the histogram from Table 2-10, _____ percent of the applicants scored below 20 or at least 50. 72) _____

Answer: 50%
Explanation:

TABLE 2-14

The table below contains the number of people who own a portable DVD player in a sample of 600 broken down by gender.

Own a Portable DVD Player	Male	Female
Yes	96	40
No	224	240

73) Referring to Table 2-14, if the sample is a good representation of the population, we can expect _____ percent of the population will own a portable DVD. 73) _____

Answer: 22.67%
Explanation:

TABLE 2-8

The Stem-and-Leaf display represents the number of times in a year that a random sample of 100 "lifetime" members of a health club actually visited the facility.

Stem	Leaves
0	012222333333445666666667789999
1	1111222234444455669999
2	00011223455556889
3	0000446799
4	011345567
5	0077
6	8
7	67
8	3
9	0247

74) Referring to Table 2-8, the person who visited the health club more than anyone else in the sample visited the facility _____ times. 74) _____

Answer: 97

Explanation:

TABLE 2-12

The table below contains the opinions of a sample of 200 people broken down by gender about the latest congressional plan to eliminate anti-trust exemptions for professional baseball.

	For	Neutral	Against	Totals
Female	38	54	12	104
Male	12	36	48	96
Totals	50	90	60	200

75) Referring to Table 2-12, construct a table of total percentages. 75) _____

Answer:

	For	Neutral	Against	Totals
Female	19.00	27.00	6.00	52.00
Male	6.00	18.00	24.00	48.00
Total	25.00	45.00	30.00	100.00

Explanation:

TABLE 2-14

The table below contains the number of people who own a portable DVD player in a sample of 600 broken down by gender.

Own a Portable DVD Player	Male	Female
Yes	96	40
No	224	240

76) Referring to Table 2-14, _____ percent of the 600 did not owned a portable DVD. 76) _____

Answer: 77.33%
Explanation:

77) In order to compare one large batch of numerical data to another, a(n) _____ distribution must be developed from the frequency distribution. 77) _____

Answer: relative frequency or percentage
Explanation:

TABLE 2-8

The Stem-and-Leaf display represents the number of times in a year that a random sample of 100 "lifetime" members of a health club actually visited the facility.

Stem	Leaves
0	012222333333445666666667789999
1	1111222234444455669999
2	00011223455556889
3	0000446799
4	011345567
5	0077
6	8
7	67
8	3
9	0247

78) Referring to Table 2-8, if a frequency distribution with equal sized classes was made from this data, and the first class was "0 but less than 10," the frequency of the fifth class would be _____. 78) _____

Answer: 9
Explanation:

TABLE 2-12

The table below contains the opinions of a sample of 200 people broken down by gender about the latest congressional plan to eliminate anti-trust exemptions for professional baseball.

	For	Neutral	Against	Totals
Female	38	54	12	104
Male	12	36	48	96
Totals	50	90	60	200

79) Referring to Table 2-12, _____ percent of the 200 were males. 79) _____

Answer: 48%
Explanation:

TABLE 2-14

The table below contains the number of people who own a portable DVD player in a sample of 600 broken down by gender.

Own a Portable DVD Player	Male	Female
Yes	96	40
No	224	240

80) Referring to Table 2-14, if the sample is a good representation of the population, we can expect _____ percent of the females in the population will not own a portable DVD. 80) _____

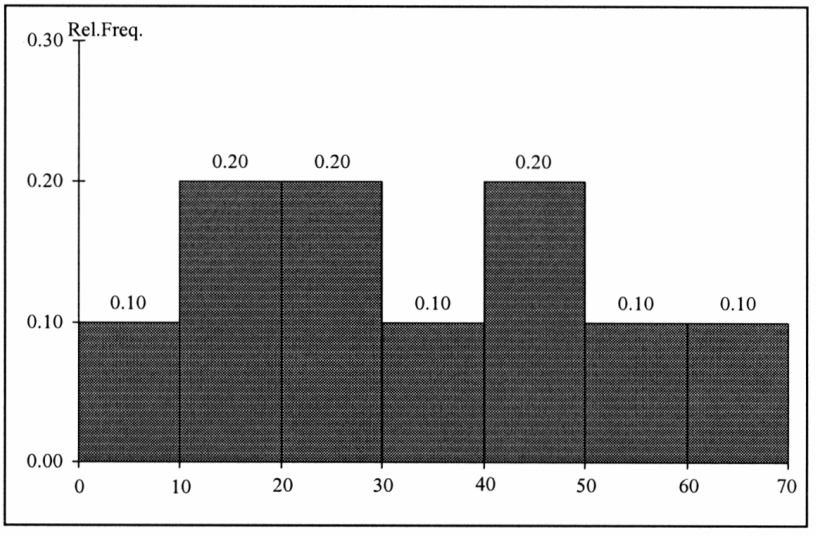
Answer: 85.71%
Explanation:

81) Referring to Table 2-14, if the sample is a good representation of the population, we can expect _____ percent of the males in the population will own a portable DVD. 81) _____

Answer: 30%
Explanation:

TABLE 2-10

The histogram below represents scores achieved by 200 job applicants on a personality profile.



82) Referring to the histogram from Table 2-10, _____ percent of the job applicants scored below 50. 82) _____

Answer: 80%
Explanation:

TABLE 2-12

The table below contains the opinions of a sample of 200 people broken down by gender about the latest congressional plan to eliminate anti-trust exemptions for professional baseball.

	For	Neutral	Against	Totals
Female	38	54	12	104
Male	12	36	48	96
Totals	50	90	60	200

83) Referring to Table 2-12, construct a table of column percentages. 83) _____

Answer:

	For	Neutral	Against	Totals
Female	76.00	60.00	20.00	52.00
Male	24.00	40.00	80.00	48.00
Total	100.00	100.00	100.00	100.00

Explanation:

84) Referring to Table 2-12, _____ percent of the 200 were not neutral. 84) _____

Answer: 55%
Explanation:

TABLE 2-7

The Stem-and-Leaf display below contains data on the number of months between the date a civil suit is filed and when the case is actually adjudicated for 50 cases heard in superior court.

Stem	Leaves
1L	2 3 4 4 4
1H	7 8 9 9
2L	2 2 2 2 3 4
2H	5 5 6 7 8 8 8 9
3L	0 0 1 1 1 3
3H	5 7 7 8
4L	0 2 3 4
4H	5 5 7 9
5L	1 1 2 4
5H	6 6
6L	1 5
6H	8

Note: 1L means the "low teens" — 10, 11, 12, 13, or 14; 1H means the "high teens" — 15, 16, 17, 18, or 19; 2L means the "low twenties" — 20, 21, 22, 23, or 24, etc.

85) Referring to Table 2-7, the civil suit with the fourth shortest waiting time between when the suit was filed and when it was adjudicated had a wait of _____ months. 85) _____

Answer: 14
Explanation:

TABLE 2-14

The table below contains the number of people who own a portable DVD player in a sample of 600 broken down by gender.

Own a Portable DVD Player	Male	Female
Yes	96	40
No	224	240

86) Referring to Table 2-14, _____ percent of the 600 were males who owned a portable DVD. 86) _____

Answer: 16%
Explanation:

87) Referring to Table 2-14, of the females in the sample, _____ percent did not own a portable DVD. 87) _____

Answer: 85.71%
Explanation:

TABLE 2-8

The Stem-and-Leaf display represents the number of times in a year that a random sample of 100 "lifetime" members of a health club actually visited the facility.

Stem	Leaves
0	012222333333445666666667789999
1	1111222234444455669999
2	00011223455556889
3	0000446799
4	011345567
5	0077
6	8
7	67
8	3
9	0247

88) Referring to Table 2-8, the person who visited the health club less than anyone else in the sample visited the facility _____ times. 88) _____

Answer: 0 or no
Explanation:

TABLE 2-9

The frequency distribution below represents the rents of 250 randomly selected federally subsidized apartments in Minneapolis.

Rent in $	Frequency
300 but less than 400	113
400 but less than 500	85
500 but less than 600	32
600 but less than 700	16
700 but less than 800	4

89) Referring to Table 2-9, the percentage of apartments renting for less than $600 is _____. 89) _____

Answer: 230/250 or 23/25 or 92% or 0.92
Explanation:

90) Referring to Table 2-9, the relative frequency of the second class is _____. 90) _____

Answer: 85/250 or 17/50 or 34% or 0.34
Explanation:

TABLE 2-12

The table below contains the opinions of a sample of 200 people broken down by gender about the latest congressional plan to eliminate anti-trust exemptions for professional baseball.

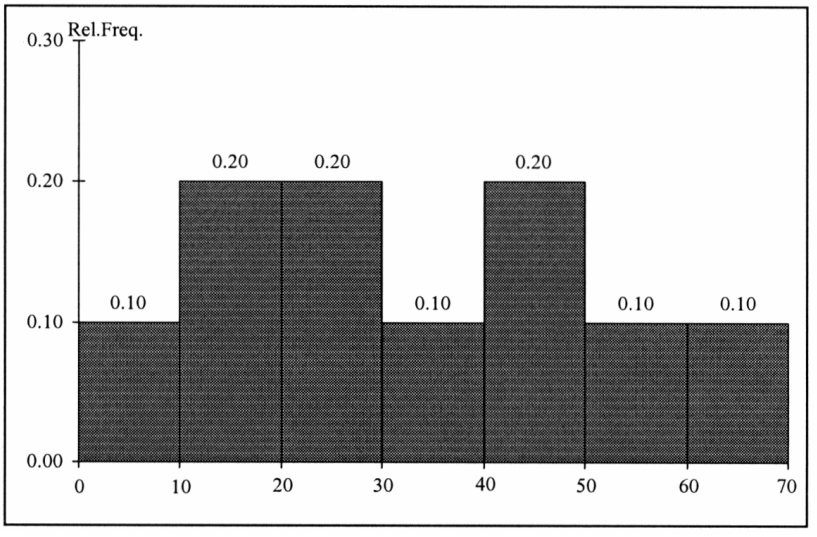
	For	Neutral	Against	Totals
Female	38	54	12	104
Male	12	36	48	96
Totals	50	90	60	200

91) Referring to Table 2-12, of the males in the sample, _____ percent were for the plan. 91) _____

Answer: 12.50%
Explanation:

TABLE 2-10

The histogram below represents scores achieved by 200 job applicants on a personality profile.



92) Referring to the histogram from Table 2-10, _____ percent of the job applicants scored between 10 and 20. 92) _____

Answer: 20%
Explanation:

TABLE 2-12

The table below contains the opinions of a sample of 200 people broken down by gender about the latest congressional plan to eliminate anti-trust exemptions for professional baseball.

	For	Neutral	Against	Totals
Female	38	54	12	104
Male	12	36	48	96
Totals	50	90	60	200

93) Referring to Table 2-12, _____ percent of the 200 were males who were neutral. 93) _____

Answer: 18%
Explanation:

94) Referring to Table 2-12, construct a table of row percentages. 94) _____

Answer:

	For	Neutral	Against	Totals
Female	36.54	51.92	11.54	100.00
Male	12.50	37.50	50.00	100.00
Totals	25.00	45.00	30.00	100.00

Explanation:

95) To evaluate two categorical variables at the same time, a(n) _____ could be developed. 95) _____

Answer: contingency or cross-classification table or side-by-side bar chart
Explanation:

TABLE 2-9

The frequency distribution below represents the rents of 250 randomly selected federally subsidized apartments in Minneapolis.

Rent in $	Frequency
300 but less than 400	113
400 but less than 500	85
500 but less than 600	32
600 but less than 700	16
700 but less than 800	4

96) Referring to Table 2-9, _____ apartments rented for at least $400 but less than $600. 96) _____

Answer: 117
Explanation:

TABLE 2-14

The table below contains the number of people who own a portable DVD player in a sample of 600 broken down by gender.

Own a Portable DVD Player	Male	Female
Yes	96	40
No	224	240

97) Referring to Table 2-14, if the sample is a good representation of the population, we can expect _____ percent of those who own a portable DVD in the population will be males. 97) _____

Answer: 70.59%
Explanation:

TABLE 2-13

Given below is the stem-and-leaf display representing the amount of detergent used in gallons (with leaves in 10ths of gallons) in a month by 25 drive-through car wash operations in Phoenix.

Stem	Leaves
9	147
10	02238
11	135566777
12	223489
13	02

98) Referring to Table 2-13, if a percentage histogram for the detergent data is constructed, using "9.0 but less than 10.0 gallons" as the first class, what percentage of drive-through car wash operations use less than 12 gallons of detergent in a month? 98) _____

Answer: 68%
Explanation:

TABLE 2-12

The table below contains the opinions of a sample of 200 people broken down by gender about the latest congressional plan to eliminate anti-trust exemptions for professional baseball.

	For	Neutral	Against	Totals
Female	38	54	12	104
Male	12	36	48	96
Totals	50	90	60	200

99) Referring to Table 2-12, if the sample is a good representation of the population, we can expect _____ percent of the population will be for the plant. 99) _____

Answer: 25%
Explanation:

100) A(n) _____ is a summary table in which numerical data are tallied into class intervals or categories. 100) _____

Answer: frequency distribution
Explanation:

TABLE 2-12

The table below contains the opinions of a sample of 200 people broken down by gender about the latest congressional plan to eliminate anti-trust exemptions for professional baseball.

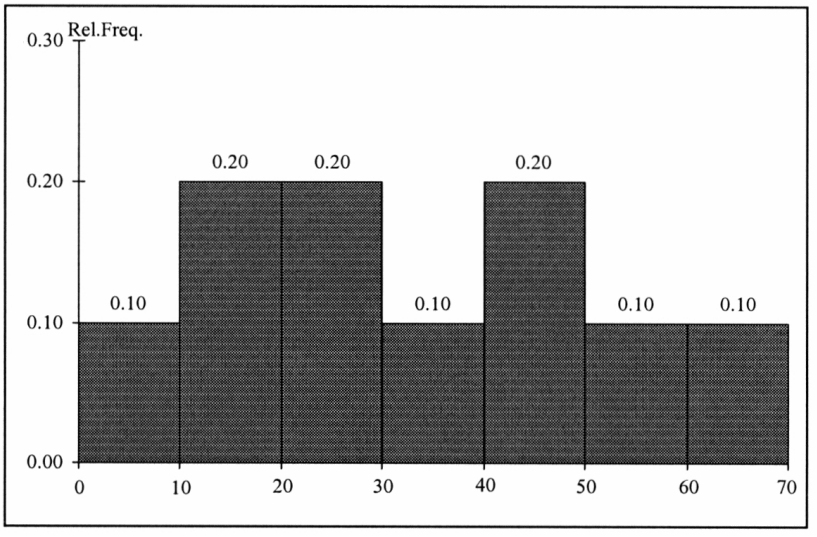
	For	Neutral	Against	Totals
Female	38	54	12	104
Male	12	36	48	96
Totals	50	90	60	200

101) Referring to Table 2-12, if the sample is a good representation of the population, we can expect _____ percent of the males in the population will be against the plan. 101) _____

Answer: 50%
Explanation:

TABLE 2-10

The histogram below represents scores achieved by 200 job applicants on a personality profile.



102) Referring to the histogram from Table 2-10, 90% of the job applicants scored above or equal to _____. 102) _____

Answer: 10
Explanation:

TABLE 2-14

The table below contains the number of people who own a portable DVD player in a sample of 600 broken down by gender.

Own a Portable DVD Player	Male	Female
Yes	96	40
No	224	240

103) Referring to Table 2-14, construct a table of column percentages. 103) _____

Answer:

Own	Male	Female	Total
Yes	30.00%	14.29%	22.67%
No	70.00%	85.71%	77.33%
Total	100.00%	100.00%	100.00%

Explanation:

104) Relationships in a contingency table can be examined more fully if the frequencies are converted into _____. 104) _____

Answer: percentages or proportions
Explanation:

TABLE 2-7

The Stem-and-Leaf display below contains data on the number of months between the date a civil suit is filed and when the case is actually adjudicated for 50 cases heard in superior court.

Stem	Leaves
1L	2 3 4 4 4
1H	7 8 9 9
2L	2 2 2 2 3 4
2H	5 5 6 7 8 8 8 9
3L	0 0 1 1 1 3
3H	5 7 7 8
4L	0 2 3 4
4H	5 5 7 9
5L	1 1 2 4
5H	6 6
6L	1 5
6H	8

Note: 1L means the "low teens" — 10, 11, 12, 13, or 14; 1H means the "high teens" — 15, 16, 17, 18, or 19; 2L means the "low twenties" — 20, 21, 22, 23, or 24, etc.

105) Referring to Table 2-7, _____ percent of the cases were not adjudicated within the first 4 years. 105) _____

Answer: 20
Explanation:

TABLE 2-12

The table below contains the opinions of a sample of 200 people broken down by gender about the latest congressional plan to eliminate anti-trust exemptions for professional baseball.

	For	Neutral	Against	Totals
Female	38	54	12	104
Male	12	36	48	96
Totals	50	90	60	200

106) Referring to Table 2-12, _____ percent of the 200 were females who were against the plan. 106) _____

Answer: 6%
Explanation:

TABLE 2-8

The Stem-and-Leaf display represents the number of times in a year that a random sample of 100 "lifetime" members of a health club actually visited the facility.

Stem	Leaves
0	012222333333445666666667789999
1	1111222234444455669999
2	00011223455556889
3	0000446799
4	011345567
5	0077
6	8
7	67
8	3
9	0247

107) Referring to Table 2-8, if a frequency distribution with equal sized classes was made from this data, and the first class was "0 but less than 10," the cumulative percentage of the next-to-last class would be _____. 107) _____

Answer: 96% or 0.96 or 96/100
Explanation:

TABLE 2-13

Given below is the stem-and-leaf display representing the amount of detergent used in gallons (with leaves in 10ths of gallons) in a month by 25 drive-through car wash operations in Phoenix.

Stem	Leaves
9	147
10	02238
11	135566777
12	223489
13	02

108) Referring to Table 2-13, construct a cumulative percentage distribution for the detergent data if the corresponding frequency distribution uses "9.0 but less than 10.0" as the first class. 108) _____

Answer:

Gasoline Purchases (gals)	Frequency Less Than	Percentage Less Than
9.0 but less than 10.0	3	12
10.0 but less than 11.0	8	32
11.0 but less than 12.0	17	68
12.0 but less than 13.0	23	92
13.0 but less than 14.0	25	100

Explanation:

TABLE 2-14

The table below contains the number of people who own a portable DVD player in a sample of 600 broken down by gender.

Own a Portable DVD Player	Male	Female
Yes	96	40
No	224	240

109) Referring to Table 2-14, construct a table of total percentages. 109) _____

Answer:

Own	Male	Female	Total
Yes	16.00%	6.67%	22.67%
No	37.33%	40.00%	77.33%
Total	53.33%	46.67%	100.00%

Explanation:

TABLE 2-7

The Stem-and-Leaf display below contains data on the number of months between the date a civil suit is filed and when the case is actually adjudicated for 50 cases heard in superior court.

Stem	Leaves
1L	2 3 4 4 4
1H	7 8 9 9
2L	2 2 2 2 3 4
2H	5 5 6 7 8 8 8 9
3L	0 0 1 1 1 3
3H	5 7 7 8
4L	0 2 3 4
4H	5 5 7 9
5L	1 1 2 4
5H	6 6
6L	1 5
6H	8

Note: 1L means the "low teens" — 10, 11, 12, 13, or 14; 1H means the "high teens" — 15, 16, 17, 18, or 19; 2L means the "low twenties" — 20, 21, 22, 23, or 24, etc.

110) Referring to Table 2-7, the civil suit with the longest wait between when the suit was filed and when it was adjudicated had a wait of _____ months. 110) _____

Answer: 68
Explanation:

TABLE 2-13

Given below is the stem-and-leaf display representing the amount of detergent used in gallons (with leaves in 10ths of gallons) in a month by 25 drive-through car wash operations in Phoenix.

Stem	Leaves
9	147
10	02238
11	135566777
12	223489
13	02

111) Referring to Table 2-13, construct a frequency distribution for the detergent data, using "9.0 but less than 10.0 gallons" as the first class. 111) _____

Answer:

Purchases (gals)	Frequency
9.0 but less than 10.0	3
10.0 but less than 11.0	5
11.0 but less than 12.0	9
12.0 but less than 13.0	6
13.0 but less than 14.0	2

Explanation:

TABLE 2-12

The table below contains the opinions of a sample of 200 people broken down by gender about the latest congressional plan to eliminate anti-trust exemptions for professional baseball.

	For	Neutral	Against	Totals
Female	38	54	12	104
Male	12	36	48	96
Totals	50	90	60	200

112) Referring to Table 2-12, _____ percent of the 200 were against the plan. 112) _____

Answer: 30%
Explanation:

TABLE 2-14

The table below contains the number of people who own a portable DVD player in a sample of 600 broken down by gender.

Own a Portable DVD Player	Male	Female
Yes	96	40
No	224	240

113) Referring to Table 2-14, of those who owned a portable DVD in the sample, _____ percent were females. 113) _____

Answer: 29.41%
Explanation:

TABLE 2-9

The frequency distribution below represents the rents of 250 randomly selected federally subsidized apartments in Minneapolis.

Rent in $	Frequency
300 but less than 400	113
400 but less than 500	85
500 but less than 600	32
600 but less than 700	16
700 but less than 800	4

114) Referring to Table 2-9, the class midpoint of the second class is _____. 114) _____

Answer: 450
Explanation:

TABLE 2-12

The table below contains the opinions of a sample of 200 people broken down by gender about the latest congressional plan to eliminate anti-trust exemptions for professional baseball.

	For	Neutral	Against	Totals
Female	38	54	12	104
Male	12	36	48	96
Totals	50	90	60	200

115) Referring to Table 2-12, if the sample is a good representation of the population, we can expect _____ percent of the females in the population will not be against the plan. 115) _____

Answer: 88.46% or (36.54+51.92)
Explanation:

TABLE 2-14

The table below contains the number of people who own a portable DVD player in a sample of 600 broken down by gender.

Own a Portable DVD Player	Male	Female
Yes	96	40
No	224	240

116) Referring to Table 2-14, construct a table of row percentages. 116) _____

Answer:

Own	Male	Female	Total
Yes	70.59%	29.41%	100.00%
No	48.28%	51.72%	100.00%
Total	53.33%	46.67%	100.00%

Explanation:

117) Referring to Table 2-14, _____ percent of the 600 were females who either owned or did not own a portable DVD. 117) _____

Answer: 46.67%
Explanation:

TABLE 2-7

The Stem-and-Leaf display below contains data on the number of months between the date a civil suit is filed and when the case is actually adjudicated for 50 cases heard in superior court.

Stem	Leaves
1L	2 3 4 4 4
1H	7 8 9 9
2L	2 2 2 2 3 4
2H	5 5 6 7 8 8 8 9
3L	0 0 1 1 1 3
3H	5 7 7 8
4L	0 2 3 4
4H	5 5 7 9
5L	1 1 2 4
5H	6 6
6L	1 5
6H	8

Note: 1L means the "low teens" — 10, 11, 12, 13, or 14; 1H means the "high teens" — 15, 16, 17, 18, or 19; 2L means the "low twenties" — 20, 21, 22, 23, or 24, etc.

118) Referring to Table 2-7, _____ percent of the cases were adjudicated within the first 2 years. 118) _____

Answer: 30

Explanation:

TABLE 2-13

Given below is the stem-and-leaf display representing the amount of detergent used in gallons (with leaves in 10ths of gallons) in a month by 25 drive-through car wash operations in Phoenix.

Stem	Leaves
9	147
10	02238
11	135566777
12	223489
13	02

119) Referring to Table 2-13, construct a relative frequency or percentage distribution for the detergent data, using "9.0 but less than 10.0" as the first class. 119) _____

Answer:

Gasoline Purchases (gals)	Percentage
9.0 but less than 10.0	12%
10.0 but less than 11.0	20
11.0 but less than 12.0	36
12.0 but less than 13.0	24
13.0 but less than 14.0	8

Explanation:

TABLE 2-7

The Stem-and-Leaf display below contains data on the number of months between the date a civil suit is filed and when the case is actually adjudicated for 50 cases heard in superior court.

Stem	Leaves
1L	2 3 4 4 4
1H	7 8 9 9
2L	2 2 2 2 3 4
2H	5 5 6 7 8 8 8 9
3L	0 0 1 1 1 3
3H	5 7 7 8
4L	0 2 3 4
4H	5 5 7 9
5L	1 1 2 4
5H	6 6
6L	1 5
6H	8

Note: 1L means the "low teens" — 10, 11, 12, 13, or 14; 1H means the "high teens" — 15, 16, 17, 18, or 19; 2L means the "low twenties" — 20, 21, 22, 23, or 24, etc.

120) Referring to Table 2-7, locate the first leaf, i.e., the lowest valued leaf with the lowest valued stem. This represents a wait of _____ months. 120) _____

Answer: 12
Explanation:

TABLE 2-12

The table below contains the opinions of a sample of 200 people broken down by gender about the latest congressional plan to eliminate anti-trust exemptions for professional baseball.

	For	Neutral	Against	Totals
Female	38	54	12	104
Male	12	36	48	96
Totals	50	90	60	200

121) Referring to Table 2-12, _____ percent of the 200 were females who were either neutral or against the plan. 121) _____

Answer: 33%
Explanation:

TABLE 2-9

The frequency distribution below represents the rents of 250 randomly selected federally subsidized apartments in Minneapolis.

Rent in $	Frequency
300 but less than 400	113
400 but less than 500	85
500 but less than 600	32
600 but less than 700	16
700 but less than 800	4

122) Referring to Table 2-9, _____ percent of the apartments rented for no less than $600. 122) _____

Answer: 8% or 20/250
Explanation:

TABLE 2-14

The table below contains the number of people who own a portable DVD player in a sample of 600 broken down by gender.

Own a Portable DVD Player	Male	Female
Yes	96	40
No	224	240

123) Referring to Table 2-14, if the sample is a good representation of the population, we can expect _____ percent of the population will be males. 123) _____

Answer: 53.33%
Explanation:

124) Referring to Table 2-14, _____ percent of the 600 were males who did not owned a portable DVD. 124) _____

Answer: 37.33%
Explanation:

125) Referring to Table 2-14, _____ percent of the 600 were females. 125) _____

Answer: 46.67%
Explanation:

TABLE 2-7

The Stem-and-Leaf display below contains data on the number of months between the date a civil suit is filed and when the case is actually adjudicated for 50 cases heard in superior court.

Stem	Leaves
1L	2 3 4 4 4
1H	7 8 9 9
2L	2 2 2 2 3 4
2H	5 5 6 7 8 8 8 9
3L	0 0 1 1 1 3
3H	5 7 7 8
4L	0 2 3 4
4H	5 5 7 9
5L	1 1 2 4
5H	6 6
6L	1 5
6H	8

Note: 1L means the "low teens" — 10, 11, 12, 13, or 14; 1H means the "high teens" — 15, 16, 17, 18, or 19; 2L means the "low twenties" — 20, 21, 22, 23, or 24, etc.

126) Referring to Table 2-7, if a frequency distribution with equal sized classes was made from this data, and the first class was "10 but less than 20," the cumulative percentage of the second class would be _____. 126) _____

Answer: 46% or 0.46 or 23/50
Explanation:

TABLE 2-8

The Stem-and-Leaf display represents the number of times in a year that a random sample of 100 "lifetime" members of a health club actually visited the facility.

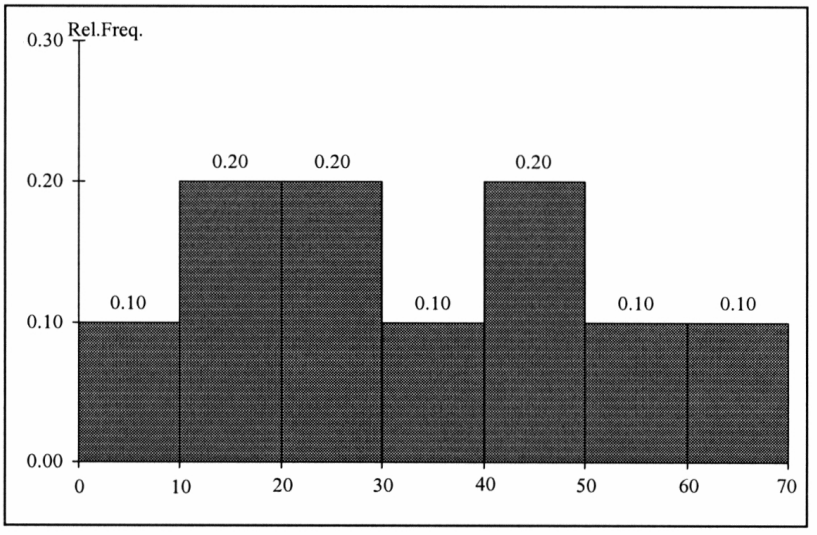
Stem	Leaves
0	01222223333334456666667789999
1	1111222234444455669999
2	00011223455556889
3	0000446799
4	011345567
5	0077
6	8
7	67
8	3
9	0247

127) Referring to Table 2-8, _____ of the 100 members visited the health club at least 52 times in a year. 127) _____

Answer: 10
Explanation:

TABLE 2-10

The histogram below represents scores achieved by 200 job applicants on a personality profile.



128) Referring to the histogram from Table 2-10, _____ percent of the applicants scored between 20 and below 50. 128) _____

Answer: 50%
Explanation:

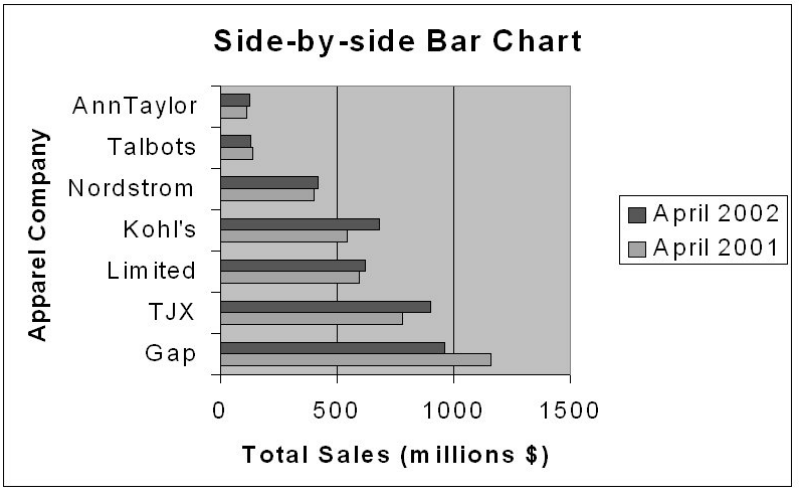
TABLE 2-17

The following table presents total retail sales in millions of dollars for the leading apparel companies during April 2001 and April 2002.

Apparel Company	April 01	April 02
Gap	1,159.00	962
TJX	781.7	899
Limited	596.5	620.4
Kohl's	544.9	678.9
Nordstrom	402.6	418.3
Talbots	139.9	130.1
AnnTaylor	114.2	124.8

129) Referring to Table 2-17, construct a side-by-side bar chart. 129) _____

Answer:



Explanation:

TABLE 2-13

Given below is the stem-and-leaf display representing the amount of detergent used in gallons (with leaves in 10ths of gallons) in a month by 25 drive-through car wash operations in Phoenix.

Stem	Leaves
9	147
10	02238
11	135566777
12	223489
13	02

130) Referring to Table 2-13, if a frequency distribution for the amount of detergent used is constructed, using "9.0 but less than 10.0 gallons" as the first class, the frequency of the "11.0 but less than 12.0 gallons" class would be _____. 130) _____

Answer: 9

Explanation:

TABLE 2-12

The table below contains the opinions of a sample of 200 people broken down by gender about the latest congressional plan to eliminate anti-trust exemptions for professional baseball.

	For	Neutral	Against	Totals
Female	38	54	12	104
Male	12	36	48	96
Totals	50	90	60	200

131) Referring to Table 2-12, if the sample is a good representation of the population, we can expect _____ percent of the population will be males. 131) _____

Answer: 48%
Explanation:

132) The point halfway between the boundaries of each class interval in a grouped frequency distribution is called the _____. 132) _____

Answer: class midpoint
Explanation:

TABLE 2-12

The table below contains the opinions of a sample of 200 people broken down by gender about the latest congressional plan to eliminate anti-trust exemptions for professional baseball.

	For	Neutral	Against	Totals
Female	38	54	12	104
Male	12	36	48	96
Totals	50	90	60	200

133) Referring to Table 2-12, if the sample is a good representation of the population, we can expect _____ percent of those for the plan in the population will be males. 133) _____

Answer: 24%
Explanation:

TABLE 2-7

The Stem-and-Leaf display below contains data on the number of months between the date a civil suit is filed and when the case is actually adjudicated for 50 cases heard in superior court.

Stem	Leaves
1L	2 3 4 4 4
1H	7 8 9 9
2L	2 2 2 2 3 4
2H	5 5 6 7 8 8 8 9
3L	0 0 1 1 1 3
3H	5 7 7 8
4L	0 2 3 4
4H	5 5 7 9
5L	1 1 2 4
5H	6 6
6L	1 5
6H	8

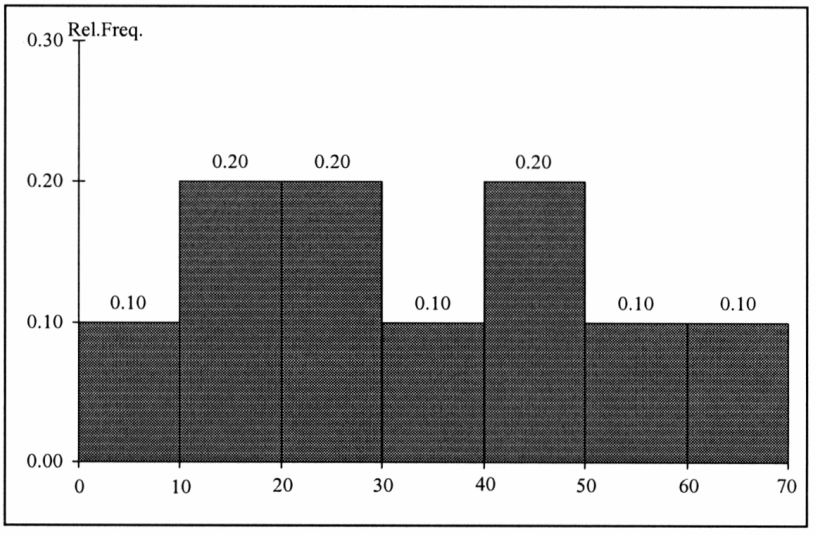
Note: 1L means the "low teens" — 10, 11, 12, 13, or 14; 1H means the "high teens" — 15, 16, 17, 18, or 19; 2L means the "low twenties" — 20, 21, 22, 23, or 24, etc.

134) Referring to Table 2-7, if a frequency distribution with equal sized classes was made from this data, and the first class was "10 but less than 20," the relative frequency of the third class would be _____. 134) _____

Answer: 0.20 or 20% or 10/50
Explanation:

TABLE 2-10

The histogram below represents scores achieved by 200 job applicants on a personality profile.



135) Referring to the histogram from Table 2-10, the number of job applicants who scored between 30 and below 60 is _____. 135) _____

Answer: 80
Explanation:

TABLE 2-8

The Stem-and-Leaf display represents the number of times in a year that a random sample of 100 "lifetime" members of a health club actually visited the facility.

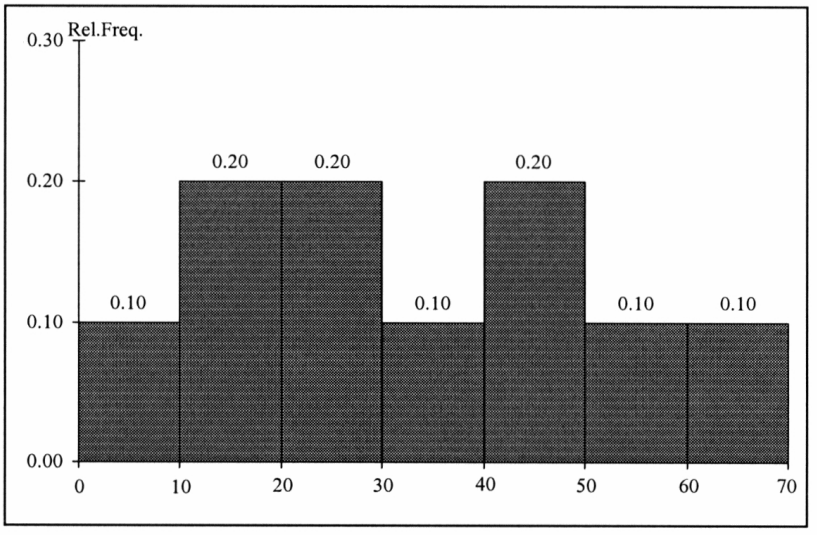
Stem	Leaves
0	012222333333445666666667789999
1	1111222234444455669999
2	00011223455556889
3	0000446799
4	011345567
5	0077
6	8
7	67
8	3
9	0247

136) Referring to Table 2-8, the person who has the largest leaf associated with the smallest stem visited the facility _____ times. 136) _____

Answer: 9
Explanation:

TABLE 2-10

The histogram below represents scores achieved by 200 job applicants on a personality profile.



137) Referring to the histogram from Table 2-10, the number of job applicants who scored 50 or above is _____. 137) _____

Answer: 40
Explanation:

TABLE 2-14

The table below contains the number of people who own a portable DVD player in a sample of 600 broken down by gender.

Own a Portable DVD Player	Male	Female
Yes	96	40
No	224	240

138) Referring to Table 2-14, of the females in the sample, _____ percent owned a portable DVD. 138) _____

Answer: 14.29%
Explanation:

TABLE 2-8

The Stem-and-Leaf display represents the number of times in a year that a random sample of 100 "lifetime" members of a health club actually visited the facility.

Stem	Leaves
0	012222333333445666666667789999
1	1111222234444455669999
2	00011223455556889
3	0000446799
4	011345567
5	0077
6	8
7	67
8	3
9	0247

139) Referring to Table 2-8, if a frequency distribution with equal sized classes was made from this data, and the first class was "0 but less than 10," the class midpoint of the third class would be _____. 139) _____

Answer: 25 or (20+30)/2
Explanation:

TABLE 2-13

Given below is the stem-and-leaf display representing the amount of detergent used in gallons (with leaves in 10ths of gallons) in a month by 25 drive-through car wash operations in Phoenix.

Stem	Leaves
9	147
10	02238
11	135566777
12	223489
13	02

140) Referring to Table 2-13, if a percentage histogram for the detergent data is constructed, using "9.0 but less than 10.0 gallons" as the first class, the percentage of drive-through car wash operations that use "12.0 but less than 13.0 gallons" of detergent would be _____. 140) _____

Answer: 24%
Explanation:

141) In constructing a polygon, each class grouping is represented by its _____ and then these are consecutively connected to one another. 141) _____

Answer: midpoint
Explanation:

TABLE 2-12

The table below contains the opinions of a sample of 200 people broken down by gender about the latest congressional plan to eliminate anti-trust exemptions for professional baseball.

	For	Neutral	Against	Totals
Female	38	54	12	104
Male	12	36	48	96
Totals	50	90	60	200

142) Referring to Table 2-12, of those neutral in the sample, _____ percent were males. 142) _____

Answer: 40%
Explanation:

TABLE 2-11

The ordered array below resulted from taking a sample of 25 batches of 500 computer chips and determining how many in each batch were defective.

Defects

1	2	4	4	5	5	6	7	9	9	12	12	15
17	20	21	23	23	25	26	27	27	28	29	29	

143) Referring to Table 2-11, if a frequency distribution for the defects data is constructed, using "0 but less than 5" as the first class, the frequency of the "20 but less than 25" class would be _____. 143) _____

Answer: 4
Explanation:

144) Referring to Table 2-11, construct a cumulative percentage distribution for the defects data if the corresponding frequency distribution uses "0 but less than 5" as the first class. 144) _____

Answer:

Defects	CumPct
0	0
5	16
10	40
15	48
20	56
25	72
30	100

Explanation:

TABLE 2-8

The Stem-and-Leaf display represents the number of times in a year that a random sample of 100 "lifetime" members of a health club actually visited the facility.

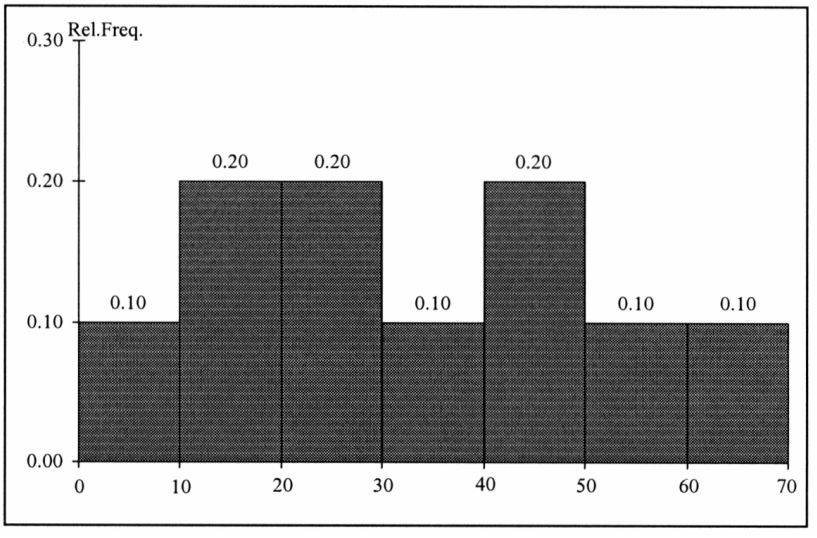
Stem	Leaves
0	012222333333445666666667789999
1	1111222234444455669999
2	00011223455556889
3	0000446799
4	011345567
5	0077
6	8
7	67
8	3
9	0247

145) Referring to Table 2-8, _____ of the 100 members visited the health club no more than 12 times in a year. 145) _____

Answer: 38
Explanation:

TABLE 2-10

The histogram below represents scores achieved by 200 job applicants on a personality profile.



146) Referring to the histogram from Table 2-10, half of the job applicants scored below _____. 146) _____

Answer: 30
Explanation:

TABLE 2-11

The ordered array below resulted from taking a sample of 25 batches of 500 computer chips and determining how many in each batch were defective.

Defects

1	2	4	4	5	5	6	7	9	9	12	12	15
17	20	21	23	23	25	26	27	27	28	29	29	

147) Referring to Table 2-11, construct a frequency distribution for the defects data, using "0 but less than 5" as the first class. 147) _____

Answer:

Defects	Frequency
0 but less than 5	4
5 but less than 10	6
10 but less than 15	2
15 but less than 20	2
20 but less than 25	4
25 but less than 30	7

Explanation:

148) A(n) _____ is a vertical bar chart in which the rectangular bars are constructed at the boundaries of each class interval. 148) _____

Answer: histogram
Explanation:

TABLE 2-12

The table below contains the opinions of a sample of 200 people broken down by gender about the latest congressional plan to eliminate anti-trust exemptions for professional baseball.

	For	Neutral	Against	Totals
Female	38	54	12	104
Male	12	36	48	96
Totals	50	90	60	200

149) Referring to Table 2-12, of the females in the sample, _____ percent were against the plan. 149) _____

Answer: 11.54%
Explanation:

TRUE/FALSE. Write 'T' if the statement is true and 'F' if the statement is false.

150) Ogives are plotted at the midpoints of the class groupings. 150) _____

Answer: True ● False
Explanation:

151) If you wish to construct a graph of a relative frequency distribution, you would most likely construct an ogive first. 151) _____

Answer: True ● False
Explanation:

152) The percentage distribution cannot be constructed from the frequency distribution directly. 152) _____

Answer: True False
Explanation:

153) Apple Computer, Inc. collected information on the age of their customers. The youngest customer was 12 and the oldest was 72. To study the distribution of the age among its customers, it is best to use a pie chart. 153) _____

Answer: True False
Explanation:

154) In graphing bivariate categorical data, the side-by-side bar chart is best suited when primary interest is in demonstrating differences in magnitude rather than differences in percentages. 154) _____

Answer: True False
Explanation:

155) The sum of cumulative frequencies in a distribution always equals 1. 155) _____

Answer: True False
Explanation:

156) One of the advantages of a pie chart is that it clearly shows that the total of all the categories of the pie adds to 100%. 156) _____

Answer: True False
Explanation:

157) When constructing a frequency distribution, classes should be selected in such a way that they are of equal width. 157) _____

Answer: True False
Explanation:

158) A good choice for the number of class groups to use in constructing frequency distribution is to have at least 5 but no more than 15 class groups. 158) _____

Answer: True False
Explanation:

159) Apple Computer, Inc. collected information on the age of their customers. The youngest customer was 12 and the oldest was 72. To study the percentage of their customers who are below a certain age, it can use an ogive. 159) _____

Answer: True False
Explanation:

TABLE 2-17

The following table presents total retail sales in millions of dollars for the leading apparel companies during April 2001 and April 2002.

Apparel Company	April 01	April 02
Gap	1,159.00	962
TJX	781.7	899
Limited	596.5	620.4
Kohl's	544.9	678.9
Nordstrom	402.6	418.3
Talbots	139.9	130.1
AnnTaylor	114.2	124.8

160) Referring to Table 2-17, in general, retail sales for the apparel industry have seen a modest growth between April 2001 and April 2002. 160) _____

Answer: True False
Explanation:

161) Apple Computer, Inc. collected information on the age of their customers. The youngest customer was 12 and the oldest was 72. To study the distribution of the age among its customers, it can use a Pareto diagram. 161) _____

Answer: True False
Explanation:

162) In general, grouped frequency distributions should have between 5 and 15 class intervals. 162) _____

Answer: True False
Explanation:

163) The sum of relative frequencies in a distribution always equals 1. 163) _____

Answer: True False
Explanation:

164) The original data values cannot be assessed once they are grouped into a frequency distribution table. 164) _____

Answer: True False
Explanation:

165) To determine the width of class interval, divide the number of class groups by the range of the data. 165) _____

Answer: True False
Explanation:

166) A polygon can be constructed from a bar chart. 166) _____

Answer: True False
Explanation:

167) Apple Computer, Inc. collected information on the age of their customers. The youngest customer was 12 and the oldest was 72. To study the distribution of the age among its customers, it can use a percentage polygon. 167) _____

Answer: True False
Explanation:

168) Research on Human perception concludes that the bar chart is preferred to the pie chart, because the human eye can more accurately judge length comparisons against a fixed scale (as in a bar chart) than angular measures (as in a pie chart). 168) _____

Answer: True False
Explanation:

169) The main principle behind the Pareto diagram is the ability to track the "vital few" from the "trivial many." 169) _____

Answer: True False
Explanation:

170) The stem-and-leaf display is often superior to the frequency distribution in that it maintains the original values for further analysis. 170) _____

Answer: True False
Explanation:

171) A Wal-Mart store in a small town monitors customer complaints and organizes these complaints into six distinct categories. Over the past year, the company has received 534 complaints. One possible graphical method for representing these data would be a Pareto chart. 171) _____

Answer: True False
Explanation:

172) Determining the class boundaries of a frequency distribution is highly subjective. 172) _____

Answer: True False
Explanation:

173) An ogive is a cumulative percentage polygon. 173) _____

Answer: True False
Explanation:

174) If the values of the seventh and eighth class in a cumulative frequency distribution are the same, we know that there are no observations in the eighth class. 174) _____

Answer: True False
Explanation:

175) The relative frequency is the frequency in each class divided by the total number of observations. 175) _____

Answer: True False
Explanation:

176) A histogram can have gaps between the bars, whereas bar charts cannot have gaps. 176) _____

Answer: True False
Explanation:

177) A side-by-side chart is two histograms plotted side-by-side. 177) _____

Answer: True False
Explanation:

178) A research analyst was directed to arrange raw data collected on the yield of wheat, ranging from 40 to 93 bushels per acre, in a frequency distribution. He should choose 30 as the class interval width. 178) _____

Answer: True False
Explanation:

179) Percentage polygons are plotted at the boundaries of the class groupings. 179) _____

Answer: True False
Explanation:

180) The larger the number of observations in a numerical data set, the larger the number of class intervals needed for a grouped frequency distribution. 180) _____

Answer: True False
Explanation:

181) The percentage polygon is formed by having the lower boundary of each class represent the data in that class and then connecting the sequence of lower boundaries at their respective class percentages. 181) _____

Answer: True False
Explanation:

182) Histograms are used for numerical data while bar charts are suitable for categorical data. 182) _____

Answer: True False
Explanation:

183) In general, a frequency distribution should have at least 8 class groups but no more than 20. 183) _____

Answer: True False
Explanation:

ESSAY. Write your answer in the space provided or on a separate sheet of paper.

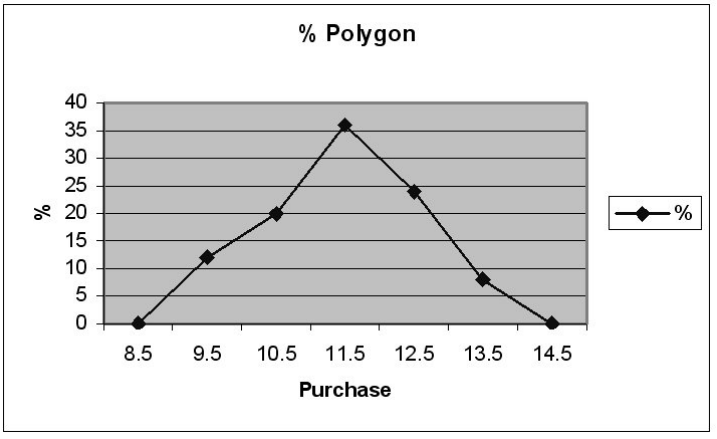
TABLE 2-13

Given below is the stem-and-leaf display representing the amount of detergent used in gallons (with leaves in 10ths of gallons) in a month by 25 drive-through car wash operations in Phoenix.

Stem	Leaves
9	147
10	02238
11	135566777
12	223489
13	02

184) Referring to Table 2-13, construct a percentage polygon for the detergent data if the corresponding frequency distribution uses "9.0 but less than 10.0" as the first class.

Answer:



185) Referring to Table 2-13, construct a histogram for the detergent data, using "9.0 but less than 10.0" as the first class.

Answer:

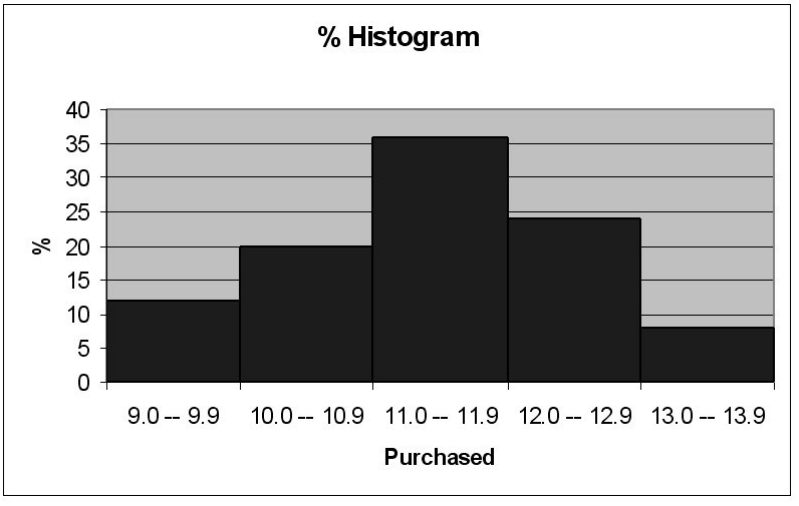


TABLE 2-11

The ordered array below resulted from taking a sample of 25 batches of 500 computer chips and determining how many in each batch were defective.

Defects												
1	2	4	4	5	5	6	7	9	9	12	12	15
17	20	21	23	23	25	26	27	27	28	29	29	

186) Referring to Table 2-11, construct a histogram for the defects data, using "0 but less than 5" as the first class.

Answer:

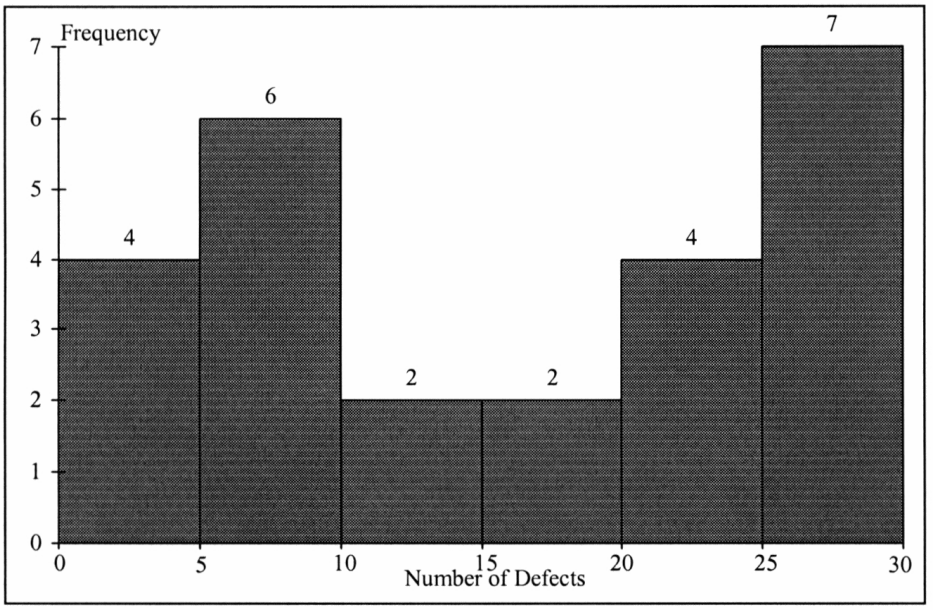


TABLE 2-13

Given below is the stem-and-leaf display representing the amount of detergent used in gallons (with leaves in 10ths of gallons) in a month by 25 drive-through car wash operations in Phoenix.

Stem	Leaves
9	147
10	02238
11	135566777
12	223489
13	02

187) Referring to Table 2-13, construct a cumulative percentage polygon for the detergent data if the corresponding frequency distribution uses "9.0 but less than 10.0" as the first class.

Answer:

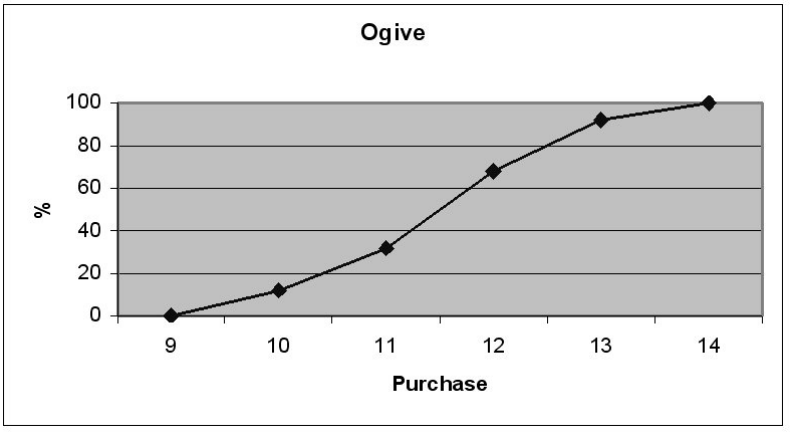


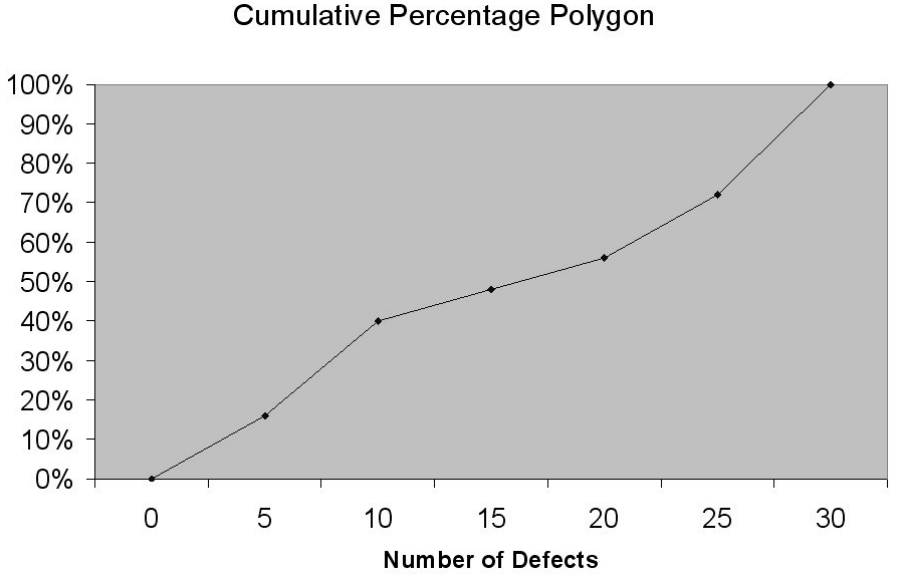
TABLE 2-11

The ordered array below resulted from taking a sample of 25 batches of 500 computer chips and determining how many in each batch were defective.

Defects												
1	2	4	4	5	5	6	7	9	9	12	12	15
17	20	21	23	23	25	26	27	27	28	29	29	

188) Referring to Table 2-11, construct a cumulative percentage polygon for the defects data if the corresponding frequency distribution uses "0 but less than 5" as the first class.

Answer:



Answer Key
Testname: C2

1) B
2) D
3) D
4) A
5) B
6) C
7) C
8) D
9) D
10) A
11) C
12) D
13) B
14) A
15) A
16) A
17) A
18) B
19) D
20) B
21) C
22) C
23) A
24) A
25) A
26) C
27) D
28) B
29) D
30) D
31) C
32) C
33) A
34) C
35) D
36) C
37) C
38) C
39) A
40) A
41) A
42) A
43) D
44) D
45) D
46) A
47) D
48) A
49) D
50) B

51) C
52) D
53)

Apparel Company	April 2001	April 2002
Gap	31.00%	25.09%
TJX	20.91%	23.45%
Limited	15.95%	16.18%
Kohl's	14.57%	17.71%
Nordstrom	10.77%	10.91%
Talbots	3.74%	3.39%
AnnTaylor	3.05%	3.26%
Total	100.00%	100.00%

54) 0.08 or 8% or 2/25
55) 63.46% or (51.92+11.54)%
56) 20.8% or 52/250
57) 24%
58) non-overlapping and of equal width
59) class boundaries
60) 6.67%
61) 9
62) 30%
63) 22.67%
64) 88%
65) 76%
66)

Defects	Percentage
0 but less than 5	16
5 but less than 10	24
10 but less than 15	8
15 but less than 20	8
20 but less than 25	16
25 but less than 30	28

67) the same or equal
68) 80%
69) 4% or 0.04 or 4/100
70) Gap and Talbots
71) 48.28%
72) 50%
73) 22.67%
74) 97
75)

	For	Neutral	Against	Totals
Female	19.00	27.00	6.00	52.00
Male	6.00	18.00	24.00	48.00
Total	25.00	45.00	30.00	100.00

76) 77.33%
77) relative frequency or percentage

78) 9
79) 48%
80) 85.71%
81) 30%
82) 80%
83)

	For	Neutral	Against	Totals
Female	76.00	60.00	20.00	52.00
Male	24.00	40.00	80.00	48.00
Total	100.00	100.00	100.00	100.00

84) 55%
85) 14
86) 16%
87) 85.71%
88) 0 or no
89) 230/250 or 23/25 or 92% or 0.92
90) 85/250 or 17/50 or 34% or 0.34
91) 12.50%
92) 20%
93) 18%
94)

	For	Neutral	Against	Totals
Female	36.54	51.92	11.54	100.00
Male	12.50	37.50	50.00	100.00
Totals	25.00	45.00	30.00	100.00

95) contingency or cross-classification table or side-by-side bar chart
96) 117
97) 70.59%
98) 68%
99) 25%
100) frequency distribution
101) 50%
102) 10
103)

Own	Male	Female	Total
Yes	30.00%	14.29%	22.67%
No	70.00%	85.71%	77.33%
Total	100.00%	100.00%	100.00%

104) percentages or proportions
105) 20
106) 6%
107) 96% or 0.96 or 96/100

108)

Gasoline Purchases (gals)	Frequency Less Than	Percentage Less Than
9.0 but less than 10.0	3	12
10.0 but less than 11.0	8	32
11.0 but less than 12.0	17	68
12.0 but less than 13.0	23	92
13.0 but less than 14.0	25	100

109)

Own	Male	Female	Total
Yes	16.00%	6.67%	22.67%
No	37.33%	40.00%	77.33%
Total	53.33%	46.67%	100.00%

110) 68

111)

Purchases (gals)	Frequency
9.0 but less than 10.0	3
10.0 but less than 11.0	5
11.0 but less than 12.0	9
12.0 but less than 13.0	6
13.0 but less than 14.0	2

112) 30%

113) 29.41%

114) 450

115) 88.46% or (36.54+51.92)

116)

Own	Male	Female	Total
Yes	70.59%	29.41%	100.00%
No	48.28%	51.72%	100.00%
Total	53.33%	46.67%	100.00%

117) 46.67%

118) 30

119)

Gasoline Purchases (gals)	Percentage
9.0 but less than 10.0	12%
10.0 but less than 11.0	20
11.0 but less than 12.0	36
12.0 but less than 13.0	24
13.0 but less than 14.0	8

120) 12

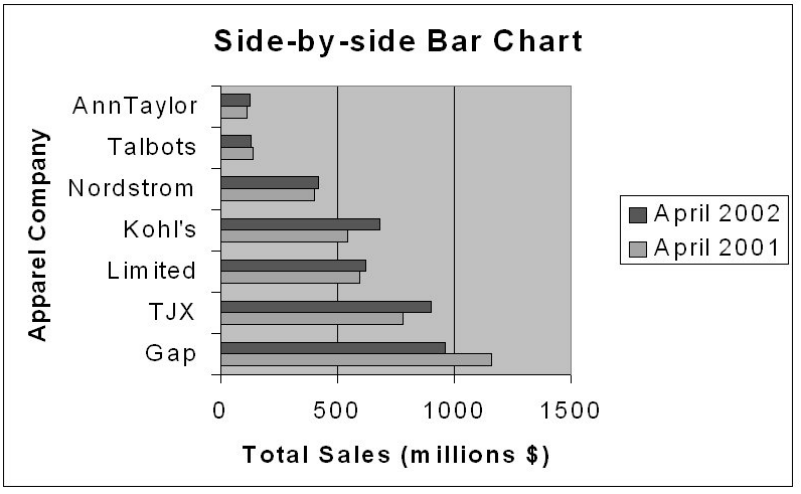
121) 33%

122) 8% or 20/250

123) 53.33%

124) 37.33%

125) 46.67%
126) 46% or 0.46 or 23/50
127) 10
128) 50%
129)



130) 9
131) 48%
132) class midpoint
133) 24%
134) 0.20 or 20% or 10/50
135) 80
136) 9
137) 40
138) 14.29%
139) 25 or (20+30)/2
140) 24%
141) midpoint
142) 40%
143) 4
144)

Defects	CumPct
0	0
5	16
10	40
15	48
20	56
25	72
30	100

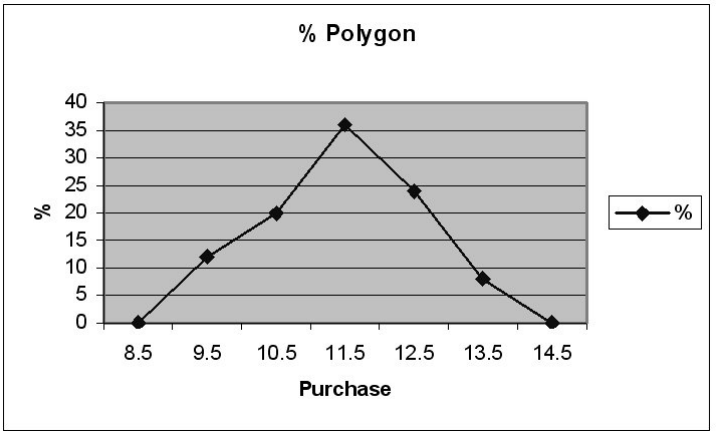
145) 38
146) 30

147)

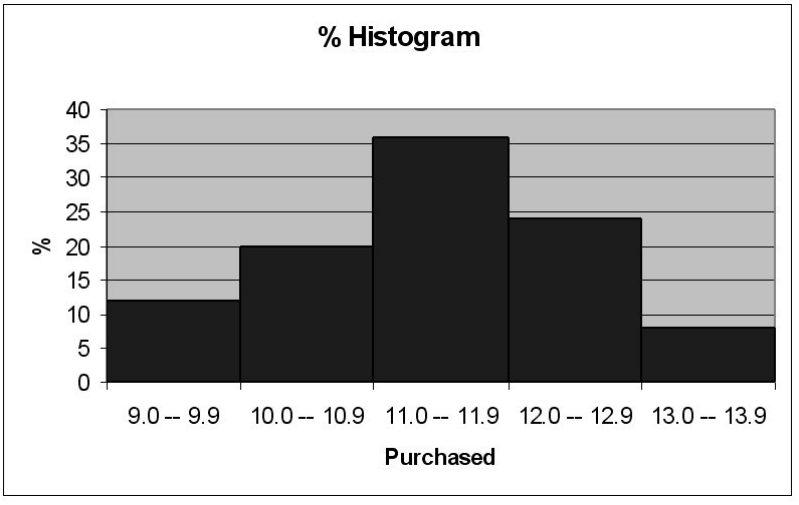
Defects	Frequency
0 but less than 5	4
5 but less than 10	6
10 but less than 15	2
15 but less than 20	2
20 but less than 25	4
25 but less than 30	7

148) histogram
149) 11.54%
150) FALSE
151) FALSE
152) FALSE
153) FALSE
154) TRUE
155) FALSE
156) TRUE
157) TRUE
158) TRUE
159) TRUE
160) TRUE
161) FALSE
162) TRUE
163) TRUE
164) TRUE
165) FALSE
166) FALSE
167) TRUE
168) TRUE
169) TRUE
170) TRUE
171) TRUE
172) TRUE
173) TRUE
174) TRUE
175) TRUE
176) FALSE
177) FALSE
178) FALSE
179) FALSE
180) TRUE
181) FALSE
182) TRUE
183) FALSE

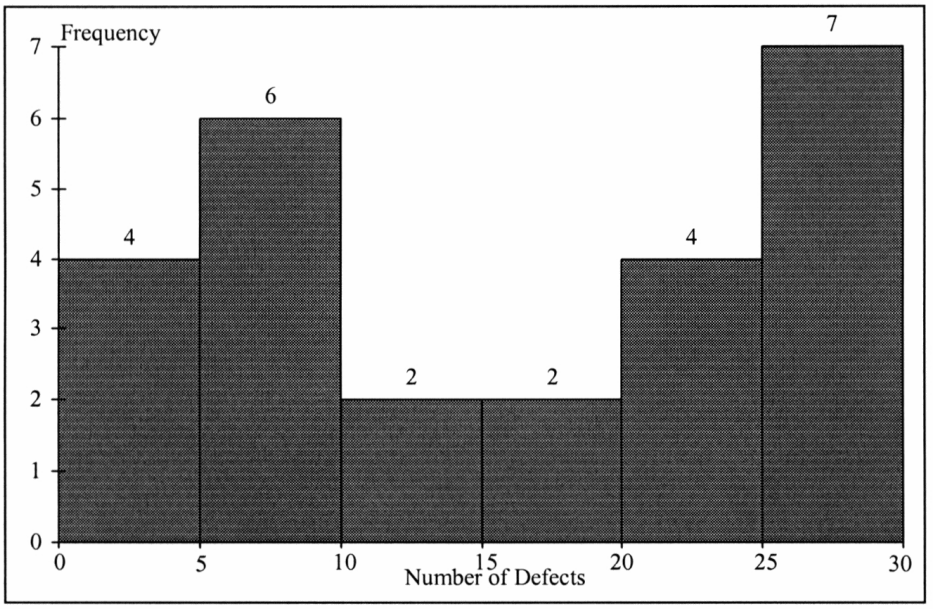
184)


% Polygon
40
35
30
25
20
15
10
5
0
%
8.5
9.5
10.5
11.5
12.5
13.5
14.5
Purchase
%

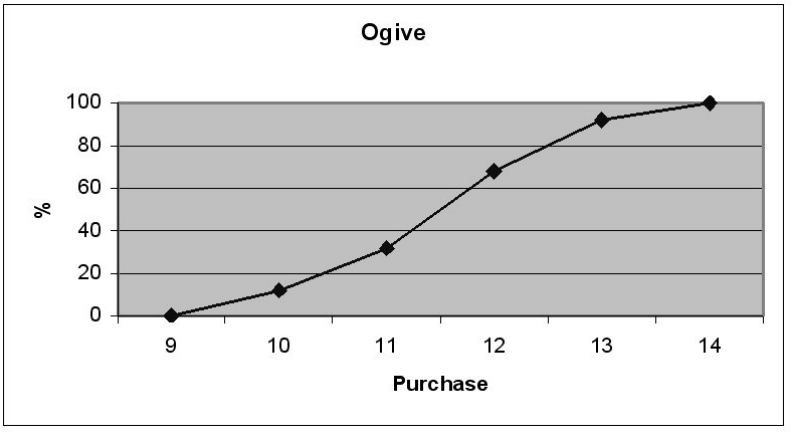
185)


% Histogram
40
35
30
25
20
15
10
5
0
%
9.0 -- 9.9
10.0 -- 10.9
11.0 -- 11.9
12.0 -- 12.9
13.0 -- 13.9
Purchased

186)


Frequency
7
6
5
4
3
2
1
0
4
6
2
2
4
7
0
5
10
15
20
25
30
Number of Defects

187)


Ogive
100
80
60
40
20
0
%
9
10
11
12
13
14
Purchase

188)