

Test Bank for Essentials of Modern Business Statistics with Microsoft Excel 8th Anderson

TEST BANK SAMPLE PREVIEW

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SHORT RESPONSE

1 : Do males prefer a particular type of smartphone more than females? A survey was conducted to help answer this question. The results are displayed below. What type of phone do males prefer?

Correct Answer : a. and b. MajorFrequencyRelative
Frequency M120.4 A 90.3 E 60.2 O 30.1 Total301.0

2 : Do males prefer a particular type of smartphone more than females? A survey was conducted to help answer this question. The results are displayed below. What type of phone do males prefer?

Correct Answer : a. and b. PreferencesFrequencyRelative
Frequency L 80.4 D120.6 Total201.0

3 : Do males prefer a particular type of smartphone more than females? A survey was conducted to help answer this question. The results are displayed below. What type of phone do males prefer?

Correct Answer : ? GradeFrequencyRelative
Frequency A 40.20 B110.55 C 50.25 Total201.00 ?a. 20%b. 75%

4 : Do males prefer a particular type of smartphone more than females? A survey was conducted to help answer this question. The results are displayed below. What type of phone do males prefer?

Correct Answer : ? ResponseFrequencyRelative Frequency No240.48 Yes150.30 Without
Opinion110.22 Total501.00 ?a. 30%b. 22%

5 : Do males prefer a particular type of smartphone more than females? A survey was conducted to help answer this question. The results are displayed below. What type of phone do males prefer?

Correct Answer : ? a. and b. PreferencesFrequencyRelative Frequency 6 ounces140.350 8
ounces170.425 10 ounces 90.225 Total401.000 ???

6 : Do males prefer a particular type of smartphone more than females? A survey was conducted to help answer this question. The results are displayed below. What type of phone do males prefer?

Correct Answer : ? MajorPercent
Frequency Accounting30% Finance20% Management40% Marketing10%?

7 : Do males prefer a particular type of smartphone more than females? A survey was conducted to help answer this question. The results are displayed below. What type of phone do males prefer?

Correct Answer :
? a.b.c.d. CumulativeRelativeCumulative ScoreFrequencyFrequencyFrequencyRelative Frequ
ency 50–59 3 30.150.15 60?69 2 50.100.25 70?79 5100.250.50 80?89 4140.200.70 90?99
6200.301.00 Total20 1.00 ?

8 : Do males prefer a particular type of smartphone more than females? A survey was conducted to help answer this question. The results are displayed below. What type of phone do males prefer?

Correct Answer : 16

9 : Do males prefer a particular type of smartphone more than females? A survey was conducted to help answer this question. The results are displayed below. What type of phone do males prefer?

Correct Answer : 0.080

10 : Do males prefer a particular type of smartphone more than females? A survey was conducted to help answer this question. The results are displayed below. What type of phone do males prefer?

Correct Answer : 10

11 : Do males prefer a particular type of smartphone more than females? A survey was conducted to help answer this question. The results are displayed below. What type of phone do males prefer?

Correct Answer : The classes overlap.

12 : Do males prefer a particular type of smartphone more than females? A survey was conducted to help answer this question. The results are displayed below. What type of phone do males prefer?

Correct Answer : The relative frequencies do not sum to 1.

13 : Do males prefer a particular type of smartphone more than females? A survey was conducted to help answer this question. The results are displayed below. What type of phone do males prefer?

Correct Answer : ? a.b.c. RelativeCumulativeCumulativeHeight
(inches)FrequencyFrequencyFrequencyRelative Frequency58?6330.12 30.1264?6950.20 80.3
270?7520.08100.4076?8160.24160.6482?8740.16200.8088?9330.12230.9294?9920.08251.00
1.00

14 : Do males prefer a particular type of smartphone more than females? A survey was conducted to help answer this question. The results are displayed below. What type of phone do males prefer?

Correct Answer : ? a.b.c. RelativeCumulativeCumulativeQuarts of Soft
DrinkFrequencyFrequencyRelative Frequency0?30.20 40.204?70.25 90.458?110.30150.7512?
150.15180.9016?190.10201.00Total1.00

15 : Do males prefer a particular type of smartphone more than females? A survey was conducted to help answer this question. The results are displayed below. What type of phone do males prefer?

Correct Answer : ? a.b.c. CumulativeRelativeClassFrequencyFrequencyFrequency60?69 3 30
.370?79 2 50.280?89 2 70.290?99 3100.3Total10 1.0

16 : Do males prefer a particular type of smartphone more than females? A survey was conducted to help answer this question. The results are displayed below. What type of phone do males prefer?

Correct Answer : Leaf Unit = 12 | 678 3 | 22667 4 | 01244585 | 2358

17 : Do males prefer a particular type of smartphone more than females? A survey was conducted to help answer this question. The results are displayed below. What type of phone do males prefer?

Correct Answer : Leaf Unit = 11 | 289 2 | 26 3 | 12678 4 | 03457895 | 127

18 : Do males prefer a particular type of smartphone more than females? A survey was conducted to help answer this question. The results are displayed below. What type of phone do males prefer?

Correct Answer : Leaf Unit = 0.10 | 579 1 | 11342 | 026

19 : Do males prefer a particular type of smartphone more than females? A survey was conducted to help answer this question. The results are displayed below.What type of phone do males prefer?

Correct Answer : Leaf Unit = 10025 | 04 26 | 15827 | 48 28 | 29 | 30 | 0

20 : Do males prefer a particular type of smartphone more than females? A survey was conducted to help answer this question. The results are displayed below.What type of phone do males prefer?

Correct Answer : Leaf Unit = 10 | 8 1 | 2 | 235683 | 6779 4 | 78

21 : Do males prefer a particular type of smartphone more than females? A survey was conducted to help answer this question. The results are displayed below.What type of phone do males prefer?

Correct Answer : Leaf Unit = 0.111 | 89 12 | 01413 | 14 | 78 15 | 228

22 : Do males prefer a particular type of smartphone more than females? A survey was conducted to help answer this question. The results are displayed below.What type of phone do males prefer?

Correct Answer : ?a.64b.240c.24d. SAT Math Scores GenderLess than 400400 up to 600600 and moreTotal Female10%70%20%100% Male25%60%15%100% From the above percentages, it can be noted that the largest percentages of both genders' SAT scores are in the 400 to 600 range. However, 70% of females and only 60% of males have SAT scores in this range. Also it can be noted that 10% of females' SAT scores are under 400, whereas 25% of males' SAT scores fall in this category.e. SAT Math Scores GenderLess than 400400 up to 600600 and more Female37.5%63.6%66.7% Male62.5%36.4%33.3% Total100%100%100%

23 : Do males prefer a particular type of smartphone more than females? A survey was conducted to help answer this question. The results are displayed below.What type of phone do males prefer?

Correct Answer : a.Design Ab.36%c.27.7%d.51.4%e.No, although both groups have 18 people who prefer Design A, the percentage of those in the "Under 25" age group who prefer Design A is smaller than that of the "25?40" age group (27.7% vs. 51.4%).

24 : Do males prefer a particular type of smartphone more than females? A survey was conducted to help answer this question. The results are displayed below.What type of phone do males prefer?

Correct Answer : a.Of those who pay with cash, 18% are female.b.5

25 : Do males prefer a particular type of smartphone more than females? A survey was conducted to help answer this question. The results are displayed below.What type of phone do males prefer?

Correct Answer : A positive relationship between x and y appears to exist.??

26 : Do males prefer a particular type of smartphone more than females? A survey was conducted to help answer this question. The results are displayed below.What type of phone do males prefer?

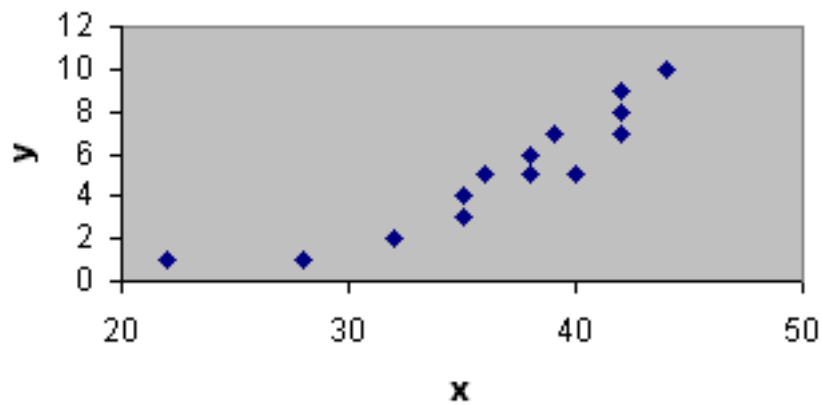
Correct Answer : No relationship between women's heights and salaries appears to exist.

27 : Do males prefer a particular type of smartphone more than females? A survey was conducted to help answer this question. The results are displayed below.What type of phone do males prefer?

Correct Answer : A negative relationship between amount of sugar and amount of fiber appears

to exist.

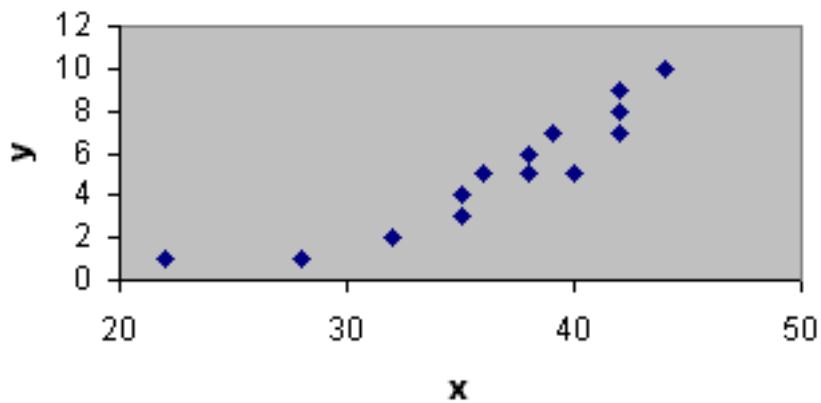
28 :



What type of graph is depicted below??

Correct Answer : A scatter diagram

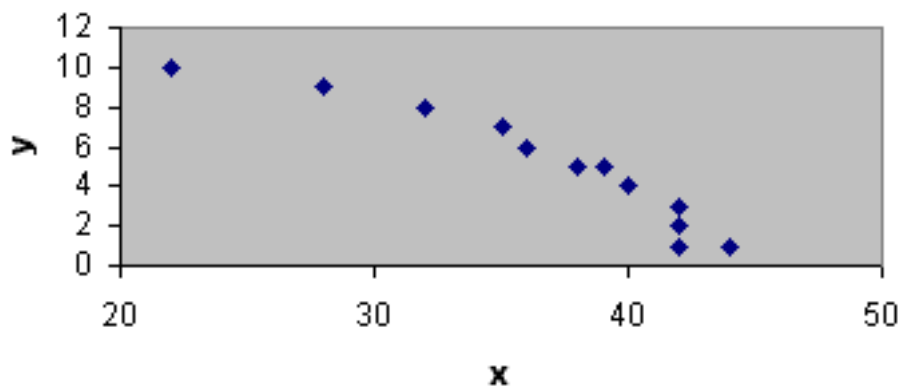
29 :



What type of relationship is depicted in the following scatter diagram??

Correct Answer : A positive relationship

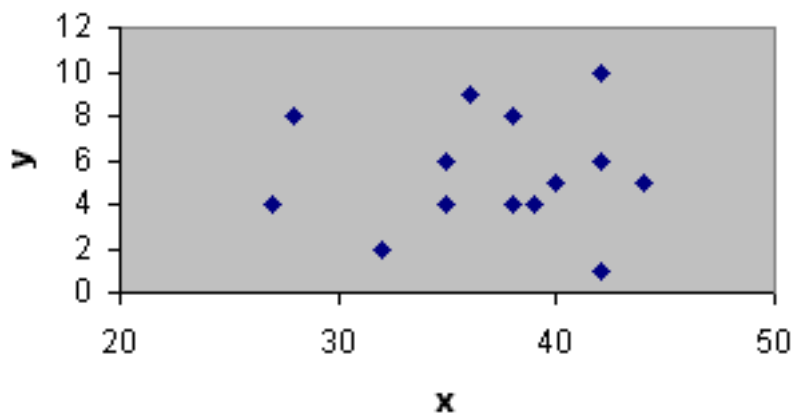
30 :



What type of relationship is depicted in the following scatter diagram??

Correct Answer : A negative relationship

31 :



What type of relationship is depicted in the following scatter diagram??

Correct Answer : No apparent relationship

32 : What type of relationship is depicted in the following scatter diagram??

Correct Answer : a. Color of Car Frequency Relative Frequency Percent Frequency
 Black 120.300 30.0 Blue 70.175 17.5 Green 40.100 10.0 Red 100.250 25.0 White 70.175 17.5
 Total 401.000 100.0 b. c. ?

33 : What type of relationship is depicted in the following scatter diagram??

Correct Answer : a. Furniture Order Frequency Relative Frequency Percent Frequency
 100?149 30.066150?199 15.03030200?249 14.02828250?299 6.01212300?349 4.088350?399 3.066400?449 3.066450?499 2.044
 b. c. Furniture Order Frequency Cumulative Frequency Cumulative Percent
 Frequency 100?149 3 3 6150?199 15 18 36200?249 14 32 64250?299 6 38 76300?349 4 42 84350?399 3 45 90400?449 3 48 96450?499 2 50 100?

34 : What type of relationship is depicted in the following scatter diagram??

Correct Answer : Leaf Unit = 10
 1234 1556667778889999201111223334444 2566789
 31234 3668 4034 479

35 : What type of relationship is depicted in the following scatter diagram??

Correct Answer : a. ? Quality Rating Frequency
 Poor 2 Below Average 3 Average 5 Above Average 9 Excellent 1 Total 20
 b. ? Quality Rating Relative Frequency Percent Frequency
 Poor 0.10 10 Below Average 0.15 15 Average 0.25 25 Above Average 0.45 45 Excellent 0.05 5 Total 1.00 100
 c. ??? d. ???

36 : What type of relationship is depicted in the following scatter diagram??

Correct Answer : Count of Home Style Price (\$1000s)
 Colonial Ranch Split-Level A-Frame Grand Total
 99826521?100558119 Grand Total 13714640?

37 : Tony Zamora, a real estate investor, has just moved to Clarksville and wants to learn about the local real estate market. He wants to understand, for example, the relationship between geographical segment of the city and selling price of a house, the relationship between selling price and number of bedrooms, and so on. Tony has randomly selected 25 house-for-sale listings from the Sunday newspaper and collected the data listed below.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	-----

??	a. Construct a crosstabulation for the variables segment of city and number of bedrooms.
	b. Compute the row percentages for your crosstabulation in part (a).
	c. Comment on any apparent relationship between the variables.

?

Correct Answer : a. CROSSTABULATION?Count of HomeNumber of Bedrooms???Segment of City2345Grand TotalNortheast01405Northwest00437South22206West01337Grand Total2413625?b. ROW PERCENTAGES?Percent of HomeNumber of Bedrooms???Segment of City2345Grand TotalNortheast0.020.080.00.0100.0?Northwest0.00.057.142.9100.0?South33.333.333.30.0100.0?West0.014.342.942.9100.1??c. We see that fewest bedrooms are associated with the South, and the most bedrooms are associated with the West and particularly the Northwest.?

MULTIPLE CHOICE

38 : The minimum number of variables represented in a bar chart is _____.

- A : 1
- B : 2
- C : 3
- D : 4

Correct Answer : A

39 : The minimum number of variables represented in a histogram is _____.

- A : 1
- B : 2
- C : 3
- D : 4

Correct Answer : A

40 : Which of the following graphical methods is most appropriate for categorical data?

- A : bar chart
- B : pie chart
- C : histogram
- D : scatter diagram

Correct Answer : B

41 : In a stem-and-leaf display, _____.

- A : a single digit is used to define each stem, and a single digit is used to define each leaf
- B : a single digit is used to define each stem, and one or more digits are used to define each leaf
- C : one or more digits are used to define each stem, and a single digit is used to define each leaf
- D : one or more digits are used to define each stem, and one or more digits are used to define each leaf

Correct Answer : C

42 : A graphical method that can be used to show both the rank order and shape of a data set simultaneously is a _____.

- A : relative frequency distribution
- B : pie chart
- C : stem-and-leaf display
- D : pivot table

Correct Answer : C

43 : The proper way to construct a stem-and-leaf display for the data set {62, 67, 68, 73, 73, 79, 91, 94, 95, 97} is to _____.

- A : exclude a stem labeled '8'
- B : include a stem labeled '8' and enter no leaves on the stem
- C : include a stem labeled '(8)' and enter no leaves on the stem
- D : include a stem labeled '8' and enter one leaf value of '0' on the stem

Correct Answer : B

44 : Data that provide labels or names for groupings of like items are known as _____.

- A : categorical data
- B : quantitative data
- C : label data
- D : generic data

Correct Answer : A

45 : A researcher is gathering data from four geographical areas designated: South = 1; North = 2; East = 3; West = 4. The designated geographical regions represent _____.

- A : categorical data
- B : quantitative data
- C : directional data
- D : continuous data

Correct Answer : A

46 : A researcher asked 20 people for their zip code. The respondents zip codes are an example of _____.

- A : categorical data
- B : quantitative data
- C : label data
- D : category data

Correct Answer : A

47 : The age of employees at a company is an example of _____.

- A : categorical data
- B : quantitative data
- C : label data
- D : time series data

Correct Answer : B

48 : A frequency distribution is a _____.

- A : tabular summary of a set of data showing the fraction of items in each of several nonoverlapping classes
- B : graphical form of representing data
- C : tabular summary of a set of data showing the number of items in each of several nonoverlapping classes

D : graphical device for presenting categorical data

Correct Answer : C

49 : The sum of frequencies for all classes will always equal _____.

A : 1

B : the number of elements in a data set

C : the number of classes

D : a value between 0 and 1

Correct Answer : B

50 : In constructing a frequency distribution, as the number of classes is decreased, the class width _____.

A : decreases

B : remains unchanged

C : increases

D : can increase or decrease depending on the data values

Correct Answer : C

51 : If several frequency distributions are constructed from the same data set, the distribution with the widest class width will have the _____.

A : fewest classes

B : most classes

C : same number of classes as the other distributions since all are constructed from the same data

D : None of the answers is correct.

Correct Answer : A

52 : Excel's _____ can be used to construct a frequency distribution for categorical data.

A : DISTRIBUTION function

B : SUM function

C : FREQUENCY function

D : PivotTables report

Correct Answer : D

53 : There are 20 boys and 8 girls in a class. What type of graph can be used to display this information?

A : bar graph

B : stem-and-leaf plot

C : histogram

D : scatter diagram

Correct Answer : A

54 : The relative frequency of a class is computed by _____.

A : dividing the midpoint of the class by the sample size

B : dividing the frequency of the class by the midpoint

C : dividing the sample size by the frequency of the class

D : dividing the frequency of the class by the sample size

Correct Answer : D

55 : The sum of the relative frequencies for all classes will always equal _____.

- A : the sample size
- B : the number of classes
- C : 1
- D : 100

Correct Answer : C

56 : The height and weight are recorded by the school nurse for every student in a school. What type of graph would best display the relationship between height and weight?

- A : bar graph
- B : stem-and-leaf plot
- C : histogram
- D : scatter diagram

Correct Answer : D

57 : The percent frequency of a class is computed by _____.

- A : multiplying the relative frequency by 10
- B : dividing the relative frequency by 100
- C : multiplying the relative frequency by 100
- D : adding 100 to the relative frequency

Correct Answer : C

58 : A dot plot can be used to display _____.

- A : the relationship between two quantitative variables
- B : the percent a particular category is of the whole
- C : the distribution of one quantitative variable
- D : Simpson's paradox

Correct Answer : C

59 : In a cumulative frequency distribution, the last class will always have a cumulative frequency equal to _____.

- A : 1
- B : 100%
- C : the total number of elements in the data set
- D : a value between 0 and 1

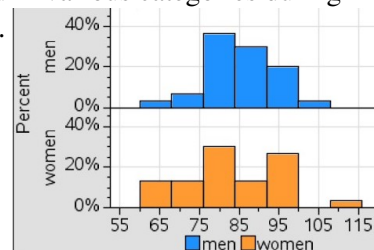
Correct Answer : C

60 : What is the difference between a bar graph and a histogram?

- A : There is no difference between a bar graph and a histogram.
- B : A bar graph displays categorical data, while a histogram displays quantitative data.
- C : A bar graph has no spaces between the bars, while a histogram must have space between the bars.
- D : A bar graph displays quantitative data, while a histogram displays categorical data.

Correct Answer : B

61 : College students were surveyed to determine how much they planned to spend in various categories during the upcoming academic year. One category is the amount spent on school supplies.



The graphs below show the amount of money spent on school supplies by women and men. Approximately what percent of women spend more than \$105 on school supplies?

- A : 5%
- B : 10%
- C : 15%
- D : 20%

Correct Answer : A

62 : The difference between the lower class limits of adjacent classes provides the _____.

- A : number of classes
- B : class limits
- C : class midpoint
- D : class width

Correct Answer : D

63 : Exhibit 2-1 The numbers of hours worked (per week) by 400 statistics students are shown below.

Number of Hours	Frequency
0x	20
10x20	80
20x30	200
30x40	100

?Refer to Exhibit 2-1. The class width for this distribution _____.

- A : is 9
- B : is 10
- C : is 40, which is the largest value minus the smallest value or $40 - 0 = 40$
- D : varies from class to class

Correct Answer : B

64 : Exhibit 2-1 The numbers of hours worked (per week) by 400 statistics students are shown below.

Number of Hours	Frequency
0x	20
10x20	80
20x30	200
30x40	100

?Refer to Exhibit 2-1. The midpoint of the last class is _____.

- A : 50
- B : 34
- C : 35
- D : 34.5

Correct Answer : C

65 : Exhibit 2-1 The numbers of hours worked (per week) by 400 statistics students are shown below.

Number of Hours	Frequency
0x	20
10x20	80
20x30	200
30x40	100

?Refer to Exhibit 2-1. The number of students working less than 20 hours is _____.

- A : 80
- B : 100
- C : 180
- D : 300

Correct Answer : B

66 : Exhibit 2-1 The numbers of hours worked (per week) by 400 statistics students are shown below.

Number of Hours	Frequency
0x	20
10x20	80
20x30	200
30x40	100

?Refer to Exhibit 2-1. The relative frequency of students working less than 10 hours is _____.

- A : 20
- B : 100
- C : .95
- D : .05

Correct Answer : D

67 : Exhibit 2-1 The numbers of hours worked (per week) by 400 statistics students are shown below.

Number of Hours	Frequency
0x	20
10x20	80
20x30	200
30x40	100

?Refer to Exhibit 2-1. The cumulative relative frequency for the class of 2030 is _____.

- A : 300
- B : .25
- C : .75
- D : .5

Correct Answer : C

68 : Exhibit 2-1 The numbers of hours worked (per week) by 400 statistics students are shown below.

Number of Hours	Frequency
-----------------	-----------

0x	20
----	----

10x20	80
20x30	200
30x40	100

?Refer to Exhibit 2-1. The percentage of students working between 10 and 20 hours is _____.

- A : 20%
- B : 25%
- C : 75%
- D : 80%

Correct Answer : A

69 : Exhibit 2-1The numbers of hours worked (per week) by 400 statistics students are shown below.

Number of Hours	Frequency
0x	20

10x20	80
20x30	200
30x40	100

?Refer to Exhibit 2-1. The percentage of students working less than 20 hours is _____.

- A : 20%
- B : 25%
- C : 75%
- D : 80%

Correct Answer : B

70 : Exhibit 2-1The numbers of hours worked (per week) by 400 statistics students are shown below.

Number of Hours	Frequency
0x	20

10x20	80
20x30	200
30x40	100

?Refer to Exhibit 2-1. The cumulative percent frequency for the class of 30 to 40 is _____.

- A : 100%
- B : 75%
- C : 50%
- D : 25%

Correct Answer : A

71 : Exhibit 2-1The numbers of hours worked (per week) by 400 statistics students are shown below.

Number of Hours	Frequency
0x	20

10x20	80
20x30	200
30x40	100

?Refer to Exhibit 2-1. The cumulative frequency for the class of 20 to 30 is _____.

- A : 200
- B : 300
- C : .75
- D : .50

Correct Answer : B

72 : Exhibit 2-1The numbers of hours worked (per week) by 400 statistics students are shown below.

Number of Hours	Frequency
0x	20
10x20	80
20x30	200
30x40	100

?Refer to Exhibit 2-1. If a cumulative frequency distribution is developed for the above data, the last class will have a cumulative frequency of _____.

- A : 100
- B : 1
- C : 30?39
- D : 400

Correct Answer : D

73 : Exhibit 2-1The numbers of hours worked (per week) by 400 statistics students are shown below.

Number of Hours	Frequency
0x	20
10x20	80
20x30	200
30x40	100

?Refer to Exhibit 2-1. The percentage of students who work at least 10 hours per week is _____.

- A : 50%
- B : 5%
- C : 95%
- D : 100%

Correct Answer : C

74 : Exhibit 2-1The numbers of hours worked (per week) by 400 statistics students are shown below.

Number of Hours	Frequency
0x	20
10x20	80
20x30	200
30x40	100

?Refer to Exhibit 2-1. The percentage of students who work at least 10 hours per week is _____.

- A : 32
- B : 18
- C : 0.36
- D : 36%

Correct Answer : B

75 : Exhibit 2-1The numbers of hours worked (per week) by 400 statistics students are shown below.

Number of Hours	Frequency
0x	20
10x20	80
20x30	200
30x40	100

?Refer to Exhibit 2-1. The percentage of students who work at least 10 hours per week is _____.

- A : 7
- B : .07
- C : .70
- D : .14

Correct Answer : D

76 : Exhibit 2-1The numbers of hours worked (per week) by 400 statistics students are shown below.

Number of Hours	Frequency
0x	20
10x20	80
20x30	200
30x40	100

?Refer to Exhibit 2-1. The percentage of students who work at least 10 hours per week is _____.

- A : 10
- B : 20
- C : .10
- D : .20

Correct Answer : B

77 : Exhibit 2-1The numbers of hours worked (per week) by 400 statistics students are shown below.

Number of Hours	Frequency
0x	20
10x20	80
20x30	200
30x40	100

?Refer to Exhibit 2-1. The percentage of students who work at least 10 hours per week is _____.

- A : is 5
- B : is 6
- C : is 20, which is the largest value minus the smallest value or $20 - 0 = 20$
- D : varies between 5 and 6

Correct Answer : D

78 : Exhibit 2-1The numbers of hours worked (per week) by 400 statistics students are shown below.

Number of Hours	Frequency
0x	20

10x20	80
20x30	200
30x40	100

?Refer to Exhibit 2-1. The percentage of students who work at least 10 hours per week is _____.

- A : 10
- B : 2
- C : 2.5
- D : 3

Correct Answer : C

79 : Exhibit 2-1The numbers of hours worked (per week) by 400 statistics students are shown below.

Number of Hours	Frequency
0x	20
10x20	80
20x30	200
30x40	100

?Refer to Exhibit 2-1. The percentage of students who work at least 10 hours per week is _____.

- A : 15
- B : 200
- C : 185
- D : 65

Correct Answer : C

80 : Exhibit 2-1The numbers of hours worked (per week) by 400 statistics students are shown below.

Number of Hours	Frequency
0x	20
10x20	80
20x30	200
30x40	100

?Refer to Exhibit 2-1. The percentage of students who work at least 10 hours per week is _____.

- A : 15
- B : 200
- C : 185
- D : 65

Correct Answer : C

81 : Exhibit 2-1The numbers of hours worked (per week) by 400 statistics students are shown below.

Number of Hours	Frequency
0x	20
10x20	80
20x30	200
30x40	100

?Refer to Exhibit 2-1. The percentage of students who work at least 10 hours per week is _____.

- A : 15
- B : 200

C : 185

D : 65

Correct Answer : A

82 : Exhibit 2-1The numbers of hours worked (per week) by 400 statistics students are shown below.

Number of Hours	Frequency
0x	20
10x20	80
20x30	200
30x40	100

?Refer to Exhibit 2-1. The percentage of students who work at least 10 hours per week is _____.

A : 15

B : 200

C : 185

D : 65

Correct Answer : A

83 : Exhibit 2-1The numbers of hours worked (per week) by 400 statistics students are shown below.

Number of Hours	Frequency
0x	20
10x20	80
20x30	200
30x40	100

?Refer to Exhibit 2-1. The percentage of students who work at least 10 hours per week is _____.

A : 185

B : .925

C : .075

D : 15

Correct Answer : B

84 : Exhibit 2-1The numbers of hours worked (per week) by 400 statistics students are shown below.

Number of Hours	Frequency
0x	20
10x20	80
20x30	200
30x40	100

?Refer to Exhibit 2-1. The percentage of students who work at least 10 hours per week is _____.

A : 199

B : .07

C : 1

D : .995

Correct Answer : D

85 : Exhibit 2-1The numbers of hours worked (per week) by 400 statistics students are shown below.

Number of Hours	Frequency
-----------------	-----------

0x	20
10x20	80
20x30	200
30x40	100

?Refer to Exhibit 2-1. The percentage of students who work at least 10 hours per week is _____.

- A : 20%
- B : 120%
- C : 75%
- D : 60%

Correct Answer : D

86 : Exhibit 2-1The numbers of hours worked (per week) by 400 statistics students are shown below.

Number of Hours	Frequency
0x	20
10x20	80
20x30	200
30x40	100

?Refer to Exhibit 2-1. The percentage of students who work at least 10 hours per week is _____.

- A : 100%
- B : 65%
- C : 92.5%
- D : 0.5%

Correct Answer : A

87 : Exhibit 2-1The numbers of hours worked (per week) by 400 statistics students are shown below.

Number of Hours	Frequency
0x	20
10x20	80
20x30	200
30x40	100

?Refer to Exhibit 2-1. The percentage of students who work at least 10 hours per week is _____.

- A : 200
- B : 14
- C : 199
- D : 1

Correct Answer : C

88 : Exhibit 2-1The numbers of hours worked (per week) by 400 statistics students are shown below.

Number of Hours	Frequency
0x	20
10x20	80
20x30	200
30x40	100

?Refer to Exhibit 2-1. The percentage of students who work at least 10 hours per week is _____.

- A : 280%

B : 520%

C : 65%

D : 32%

Correct Answer : C

89 : Exhibit 2-1The numbers of hours worked (per week) by 400 statistics students are shown below.

Number of Hours	Frequency
0x	20
10x20	80
20x30	200
30x40	100

?Refer to Exhibit 2-1. The percentage of students who work at least 10 hours per week is _____.

A : 292%

B : 520%

C : 65%

D : 36.5%

Correct Answer : D

90 : Exhibit 2-1The numbers of hours worked (per week) by 400 statistics students are shown below.

Number of Hours	Frequency
0x	20
10x20	80
20x30	200
30x40	100

?Refer to Exhibit 2-1. The percentage of students who work at least 10 hours per week is _____.

A : 27.78%

B : 8.75%

C : 70%

D : 72.22%

Correct Answer : A

91 : Exhibit 2-1The numbers of hours worked (per week) by 400 statistics students are shown below.

Number of Hours	Frequency
0x	20
10x20	80
20x30	200
30x40	100

?Refer to Exhibit 2-1. The percentage of students who work at least 10 hours per week is _____.

A : 15.75%

B : 45%

C : 54%

D : 35%

Correct Answer : B

92 : A graphical device for depicting categorical data that have been summarized in a frequency

distribution, relative frequency distribution, or percent frequency distribution is a(n) _____.

A : histogram

B : stem-and-leaf display

C : dot plot

D : bar chart

Correct Answer : D

93 : A graphical device for presenting categorical data summaries based on subdivision of a circle into sectors that correspond to the relative frequency for each class is a _____.

A : histogram

B : stem-and-leaf display

C : pie chart

D : bar chart

Correct Answer : C

94 : Categorical data can be graphically represented by using a(n) _____.

A : histogram

B : stem-and-leaf display

C : scatter diagram

D : bar chart

Correct Answer : D

95 : Fifteen percent of the students in a School of Business Administration are majoring in Economics, 20% in Finance, 35% in Management, and 30% in Accounting. The graphical device(s) that can be used to present these data is(are) _____.

A : a line graph

B : only a bar chart

C : only a pie chart

D : both a bar chart and a pie chart

Correct Answer : D

96 : Frequency distributions can be made for _____.

A : categorical data only

B : quantitative data only

C : neither categorical nor quantitative data

D : both categorical and quantitative data

Correct Answer : D

97 : The total number of data items with a value less than or equal to the upper limit for the class is given by the _____.

A : frequency distribution

B : relative frequency distribution

C : cumulative frequency distribution

D : cumulative relative frequency distribution

Correct Answer : C

98 : Excel's _____ can be used to construct a frequency distribution for quantitative data.

- A : COUNTIF function
- B : SUM function
- C : PivotTable report
- D : AVERAGE function

Correct Answer : C

99 : A graphical presentation of a frequency distribution, relative frequency distribution, or percent frequency distribution of quantitative data constructed by placing the class intervals on the horizontal axis and the frequencies on the vertical axis is a _____.

- A : histogram
- B : bar chart
- C : stem-and-leaf display
- D : pie chart

Correct Answer : A

100 : A common graphical presentation of quantitative data is a _____.

- A : histogram
- B : bar chart
- C : relative frequency distribution
- D : pie chart

Correct Answer : A

101 : When using Excel to create a _____, one must edit the chart to remove the gaps between rectangles.

- A : scatter diagram
- B : bar chart
- C : histogram
- D : pie chart

Correct Answer : C

102 : A _____ can be used to graphically present quantitative data.

- A : bar chart
- B : pie chart
- C : stem-and-leaf display
- D : stacked bar chart

Correct Answer : C

103 : A _____ shows the proportion of data items.

- A : histogram
- B : cumulative percent frequency distribution
- C : stem-and-leaf display
- D : cumulative relative frequency distribution

Correct Answer : D

104 : Excel's Chart Tools can be used to construct a _____.

- A : dot plot
- B : pie chart and a dot plot

- C : histogram
- D : stem-and-leaf display

Correct Answer : C

105 : To construct a bar chart using Excel's Chart Tools, choose _____ as the chart type.

- A : column
- B : pie
- C : scatter
- D : line

Correct Answer : A

106 : To construct a pie chart using Excel's Chart Tools, choose _____ as the chart type.

- A : column
- B : pie
- C : scatter
- D : line

Correct Answer : B

107 : To construct a histogram using Excel's Chart Tools, choose _____ as the chart type.

- A : column
- B : pie
- C : scatter
- D : line

Correct Answer : A

108 : Excel's Chart Tools does NOT have a chart type for constructing a _____.

- A : bar chart
- B : pie chart
- C : histogram
- D : stem-and-leaf display

Correct Answer : D

109 : A tabular method that can be used to summarize the data on two variables simultaneously is called _____.

- A : simultaneous equations
- B : a crosstabulation
- C : a histogram
- D : a dot plot

Correct Answer : B

110 : Excel's _____ can be used to construct a crosstabulation.

- A : Chart Tools
- B : SUM function
- C : PivotTable report
- D : COUNTIF function

Correct Answer : C

111 : In a crosstabulation, _____.

A : both variables must be categorical

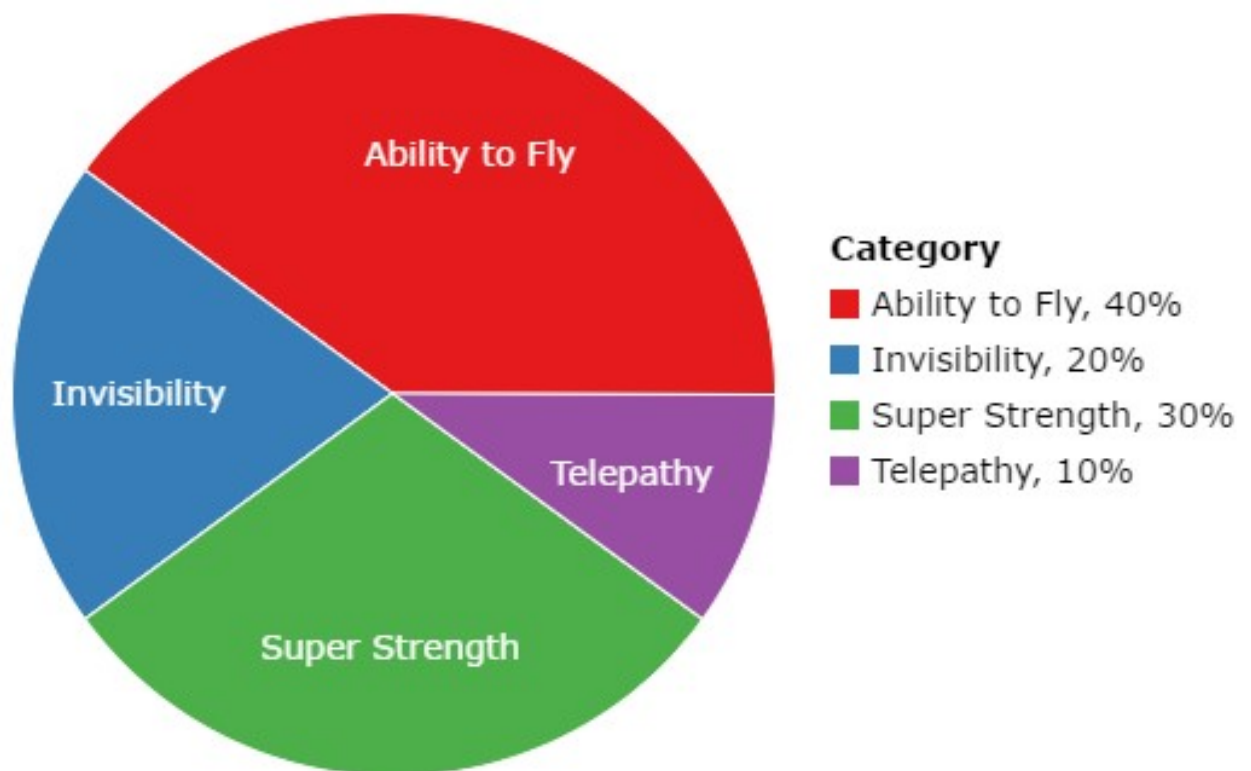
B : both variables must be quantitative

C : one variable must be categorical and the other must be quantitative

D : either or both variables can be categorical or quantitative

Correct Answer : D

112 : In a class with 30 students, we ask, “If you could have any super power, what would it be?” Each student could only choose one super power. The resulting pie chart is below. The least popular choice of super power was _____. **What Super Power Did Students Choose?**



?

A : ability to fly

B : telepathy

C : invisibility

D : super strength

Correct Answer : B

113 : In Excel, the line of best fit for the points in a scatter diagram is called a _____.

A : trendline

B : horizontal line

C : vertical line

D : fit line

Correct Answer : A

114 : When the conclusions based upon the aggregated crosstabulation can be completely reversed if we look at the unaggregated data, the occurrence is known as _____.

- A : reverse correlation
- B : inferential statistics
- C : Simpsons paradox
- D : disaggregation

Correct Answer : C

115 : Before drawing any conclusions about the relationship between two variables shown in a crosstabulation, you should _____.

- A : investigate whether any hidden variables could affect the conclusions
- B : construct a scatter diagram and find the trendline
- C : develop a relative frequency distribution
- D : construct a pie chart for each of the variables

Correct Answer : A

116 : A histogram is NOT appropriate for displaying which of the following types of information?

- A : frequency
- B : relative frequency
- C : cumulative frequency
- D : percent frequency

Correct Answer : C

117 : For stem-and-leaf displays where the leaf unit is not stated, the leaf unit is assumed to equal _____.

- A : 0
- B : 0.1
- C : 1
- D : 10

Correct Answer : C

118 : Which of the following graphical methods is not intended for quantitative data?

- A : stem-and-leaf display
- B : dot plot
- C : scatter diagram
- D : pie chart

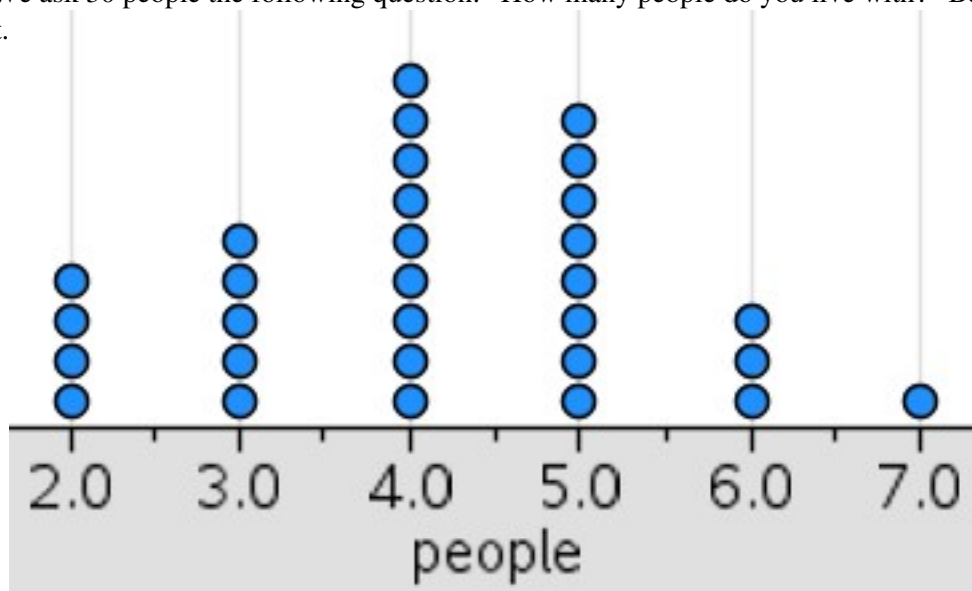
Correct Answer : D

119 : Which of the following is LEAST useful in studying the relationship between two variables?

- A : trendline
- B : stem-and-leaf display
- C : crosstabulation
- D : scatter diagram

Correct Answer : B

120 : We ask 30 people the following question: “How many people do you live with?” Below are the results in a dot plot.

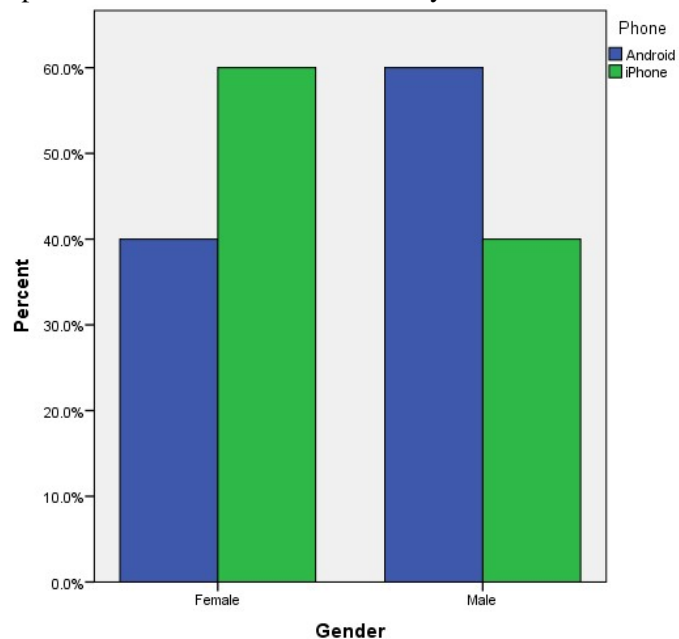


What percentage of people surveyed live with 3 or less people?

- A : 30%
- B : 40%
- C : 50%
- D : 90%

Correct Answer : A

121 : Do males prefer a particular type of smartphone more than females? A survey was conducted to help answer this question. The results are displayed below.



What type of phone do males prefer?

- A : Android
- B : iPhone
- C : Males prefer Androids and iPhones equally.
- D : cannot be determined based upon the information given in the graph

Correct Answer : A