

Business Analytics 4th edition Camm Test Bank

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SHORT RESPONSE

1 : A student willing to participate in a debate competition is required to fill out a registration form. State whether each of the following information about the participant provides categorical or quantitative data.a. What is your birth month?b. Have you participated in any debate competition previously?c. If yes, in how many debate competitions have you participated so far?d. Have you won any of the competitions?e. If yes, how many have you won?

Correct Answer : a. Categoricalb. Categoricalc. Quantitatived. Categorical e. Quantitative

2 : A student willing to participate in a debate competition is required to fill out a registration form. State whether each of the following information about the participant provides categorical or quantitative data.a. What is your birth month?b. Have you participated in any debate competition previously?c. If yes, in how many debate competitions have you participated so far?d. Have you won any of the competitions?e. If yes, how many have you won?

Correct Answer : a.NationalityContinentNumber of BillionairesUnited StatesNorth America426ChinaAsia120RussiaEurope105GermanyEurope57IndiaAsia54TurkeyEurope40Hong KongAsia39BrazilSouth America38MexicoNorth America37United KingdomEurope31CanadaNorth America28The top five countries with the greatest number of billionaires are the United States, China, Russia, Germany, and India.b.NationalityContinentNumber of BillionairesUnited StatesNorth America426MexicoNorth America37CanadaNorth America28

3 : A student willing to participate in a debate competition is required to fill out a registration form. State whether each of the following information about the participant provides categorical or quantitative data.a. What is your birth month?b. Have you participated in any debate competition previously?c. If yes, in how many debate competitions have you participated so far?d. Have you won any of the competitions?e. If yes, how many have you won?

Correct Answer : a. The sorted list of parks for the current year appears as below:National ParksPercentage of visitors previous yearPercentage of visitors current yearOlympic86.4%88.6%The Grand Tetons84.6%87.8%Cuyahoga Valley85.1%86.7%The Colorado Rockies84.3%85.4%Theodore Roosevelt81.6%84.8%The Smokies78.2%84.2%Acadia79.2%82.6%The Grand Canyon83.5%81.6%Shenandoah72.9%79.2%Zion76.7%78.9%Yosemite74.2%78.4%Yellowstone77.9%76.2%Olympic has the highest number of visitors in the current year, and Yellowstone has the lowest number of visitors in the current year.b.National ParksPercentage of visitors previous yearPercentage of visitors current yearChange in visitor percentageThe Smokies78.2%84.2%6.00%The Grand Canyon83.5%81.6%-1.90%Theodore Roosevelt81.6%84.8%3.20%Yosemite74.2%78.4%4.20%Yellowstone77.9%76.2%-1.70%Olympic86.4%88.6%2.20%The Colorado Rockies84.3%85.4%1.10%Zion76.7%78.9%2.20%The Grand Tetons84.6%87.8%3.20%Cuyahoga Valley85.1%86.7%1.60%Acadia79.2%82.6%3.40%Shenandoah72.9%79.2%6.30%c. The output using Excel's conditional formatting tool that created data bars for the change in visitor percentage from the previous year to the current year for each park appears as below.

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Correct Answer : a. The relative frequency of group 4 is obtained as $1.00 - 0.15 - 0.32 - 0.29 = 0.24$. b. If the total sample size is 400, the frequency of group 4 is obtained as $0.24 \times 400 = 96$. c. Group Relative Frequency

Group	Relative Frequency	Frequency
1	0.15	60
2	0.32	128
3	0.29	116
4	0.24	96
Total	1.00	400

d. Group Relative Frequency

Group	Relative Frequency	Frequency
1	0.15	60
2	0.32	128
3	0.29	116
4	0.24	96
Total	1.00	400

5 : A student willing to participate in a debate competition is required to fill out a registration form. State whether each of the following information about the participant provides categorical or quantitative data. a. What is your birth month? b. Have you participated in any debate competition previously? c. If yes, in how many debate competitions have you participated so far? d. Have you won any of the competitions? e. If yes, how many have you won?

Correct Answer : a. The given data are categorical. b. Newspapers

Newspaper	Frequency	Relative Frequency
NYT	142	0.284
WP	122	0.244
DN	91	0.182
NYP	71	0.142
LAT	81	0.162
Total	501	1.000

c. The most preferred newspaper is The New York Times.

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Correct Answer : a. The least amount of time a student spent was 12 hours, and the highest was 25 hours. b. Hours in Study per Week

Hours	Frequency	Relative Frequency
12–13	50	0.2
14–15	40	0.16
16–17	40	0.16
18–19	40	0.16
20–21	30	0.12
22–23	30	0.12
24–25	20	0.08
Total	250	1.00

c. The distribution is skewed to the right.

7 : A student willing to participate in a debate competition is required to fill out a registration form. State whether each of the following information about the participant provides categorical or quantitative data. a. What is your birth month? b. Have you participated in any debate competition previously? c. If yes, in how many debate competitions have you participated so far? d. Have you won any of the competitions? e. If yes, how many have you won?

Correct Answer : a. – d. ?

Class	Frequency	Relative Frequency	Cumulative Frequency	Cumulative Relative Frequency
10–13	40	0.174	40	0.174
14–17	70	0.291	110	0.461
18–21	60	0.251	170	0.712
22–25	40	0.172	210	0.882
26–29	30	0.132	240	1.000
Total	240	1.000		

e. From the cumulative relative frequency distribution, 17% of the salespersons spent 13 hours of time or less with the customers. f. The distribution is skewed to the right.

8 : The scores of a sample of students in a Math test are 20, 15, 19, 21, 22, 12, 17, 14, 24, 16 and in a Stat test are 16, 12, 19, 17, 22, 14, 20, 21, 24, 15, 13. a. Compute the mean and median scores for both the Math and the Stat tests. b. Compare the mean and median scores computed in part a. Comment.

Correct Answer : a. For Math test: Mean = 18 Median = 18 For Stat test: Mean = 17.5 Median = 17 b. The mean and the median scores for statistics are lower than that for mathematics. These lower values are because of an additional score 13 for statistics, which is lower than the mean and the median scores for mathematics.

9 : Consider a sample on the waiting times (in minutes) at the billing counter in a grocery store to be 15, 24, 18, 15, 21, 20, 15, 22, 19, 16, 15, 22, 20, 15, and 21. Compute the mean, median, and mode.

Correct Answer : Mean = 18.53 Median = 19 Mode = 15

10 : Consider a sample on the waiting times (in minutes) at the billing counter in a grocery store to be 15, 24, 18, 15, 21, 20, 15, 22, 19, 16, 15, 22, 20, 15, and 21. Compute the mean, median, and mode.

Correct Answer : ?a.?YearBank XGrowth FactorBank YGrowth Factor 1,000 500 11,3201.32560 1.1221,5101.146201.1131,7501.166801.1042,0901.197401.0952,2401.077901.0762,4701.108 201.0472,8301.158701.0683,2201.149101.0593,4501.079501.04103,6901.079901.04 Geometric Mean1.1395Geometric Mean1.0707 % of return13.95%% of return7.07%?Bank X provides a better return when compared to Bank Y.

11 : Consider a sample on the waiting times (in minutes) at the billing counter in a grocery store to be 15, 24, 18, 15, 21, 20, 15, 22, 19, 16, 15, 22, 20, 15, and 21. Compute the 25th, 50th, and 75th percentiles.

Correct Answer : 25th percentile = 15 50th percentile = 19 75th percentile = 21

12 : Consider a sample on the waiting times (in minutes) at the billing counter in a grocery store to be 15, 24, 18, 15, 21, 20, 15, 22, 19, 16, 15, 22, 20, 15, and 21. Compute the 25th, 50th, and 75th percentiles.

Correct Answer : Travel times (in minutes)a. Using private transport:Mean = 27.9Median = 28.5Using public transport:Mean = 29.4Median = 29.5b. Using private transport:Variance= 27.43Standard deviation = 5.24Using public transport:Variance = 39.38Standard deviation = 6.28c. The travel times of employees using a private transport are less than those using a public transport.

13 : Consider a sample on the waiting times (in minutes) at the billing counter in a grocery store to be 15, 24, 18, 15, 21, 20, 15, 22, 19, 16, 15, 22, 20, 15, and 21. Compute the 25th, 50th, and 75th percentiles.

Correct Answer : ?a. Mean = 25.68b. Median = 26.4c. Mode = 26.8d. Variance = 6.67; Standard deviation = 2.58e. Third quartile = 28.1

14 : Consider a sample on the waiting times (in minutes) at the billing counter in a grocery store to be 15, 24, 18, 15, 21, 20, 15, 22, 19, 16, 15, 22, 20, 15, and 21. Compute the 25th, 50th, and 75th percentiles.

Correct Answer : a. For tenth employee using private transport: First, calculate the mean (AVERAGE function in Excel) and standard deviation (STDEV.S function in Excel) for private transport.Mean = 27.9, StDev = 5.24The z-score is then obtained as, b. For second employee using public transport: First, calculate the mean (AVERAGE function in Excel) and standard deviation (STDEV.S function in Excel) for public transport.Mean = 29.4, StDev = 6.28The z-score is then obtained as, Even though the employees had the same travel time, the z-score for the tenth employee in the sample who used a private transport is much larger because that employee is part of a sample with a smaller mean and a smaller standard deviation.c.Travel Times using Private Transportz-scoreTravel Times using Public Transportz-score27-0.17300.10330.9729-0.06280.0225-0.70320.7820-1.5020-1.5127-0.38341.16320.41300.40371.21280.02381.3718-1.8921-1.34290.21350.89No z-score is less than -3.0 or above +3.0; therefore, the z-scores do not indicate the existence of any outliers in either sample.

15 : The results of a survey showed that, on average, children spend 5.6 hours on PlayStation per week. Suppose that the standard deviation is 1.7 hours and that the number of hours on PlayStation follows a bell-shaped distribution.a. Use the empirical rule to calculate the percentage of children who spend between 2.2 and 9 hours on PlayStation per week.b. What is the z-value for a child who spends 7.5 hours on PlayStation per week?c. What is the z-value for a child who spends 4.5 hours on PlayStation per week?

Correct Answer : a. According to the empirical rule, approximately 95% of data values will be within two standard deviations of the mean.2.2 is two standard deviations less than the mean, and 9 is two standard deviations greater than the mean. Therefore, approximately 95% of children spend between 2.2 and 9 hours on PlayStation per week. b. c.

16 : A study on the average minutes spent by students on Internet usage is 300 with a standard deviation of 102. Answer the following questions assuming a bell-shaped distribution and using the empirical rule.a. What percentage of students use the Internet for more than 402 minutes?b. What percentage of students use the Internet for more than 504 minutes?c. What percentage of students use the Internet between 198 minutes and 300 minutes?

Correct Answer : a. 402 is one standard deviation above the mean. The empirical rule states that 68% of data values will be within one standard deviation of the mean. Because a bell-shaped distribution is symmetric, $0.5 \times (1 - 68\%) = 16\%$ of the data values will be greater than (mean + 1 × standard deviation) 402. 16% of students use the Internet for more than 402 minutes.?b. 504 is two standard deviations above the mean. The empirical rule states that 95% of data values will be within two standard deviations of the mean. Because a bell-shaped distribution is symmetric, $0.5 \times (1 - 95\%) = 2.5\%$ of the data values will be greater than (mean + 2 × standard deviation) 504. 2.5% of students use the Internet for more than 504 minutes.?c. 198 is one standard deviation below the mean. The empirical rule states that 68% of data values will be within one standard deviation of the mean, and we expect that $0.5 \times (1 - 68\%) = 16\%$ of data values will be below one standard deviation below the mean. 300 is the mean, so we expect that 50% of the data values will be below the mean. Therefore, we expect $50\% - 16\% = 34\%$ of the data values will be between the mean 300 and one standard deviation below the mean 198. 34% of students use the Internet between 198 minutes and 300 minutes.

17 : Eight observations taken for two variables are as follows: x_i

11	35
13	32
17	26
18	25
22	20
24	17
26	11
28	10

a. Develop a scatter diagram with x on the horizontal axis.b. What does the scatter diagram developed in part (a) indicate about the relationship between the two variables?c. Compute and interpret the sample covariance.d. Compute and interpret the sample correlation coefficient.

Correct Answer : a.b. There appears to be a negative linear relationship between the x and y variables.c. $1135 - 8.8813 - 115.381332 - 6.8810 - 68.751726 - 2.884 - 11.501825 - 1.883 - 5.6322202.13 - 2 - 4.2524174.13 - 5 - 20.6326116.13 - 11 - 67.3828108.13 - 12 - 97.50 - 391 = 19.88 = 22$??The negative covariance confirms that there is a negative linear relationship between the x and y variables in this data set.d. Then the correlation coefficient is calculated as:.The correlation coefficient again confirms and indicates a strong negative linear association between the x and

y variables in this data set.

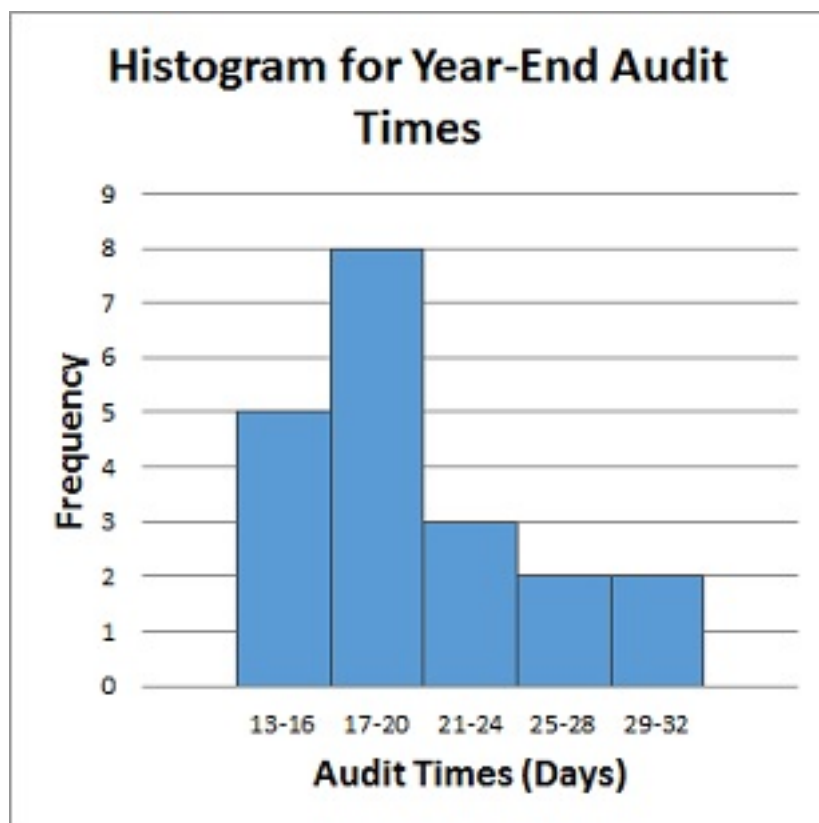
18 : Eight observations taken for two variables are as follows:

11	35
13	32
17	26
18	25
22	20
24	17
26	11
28	10

a. Develop a scatter diagram with x on the horizontal axis. b. What does the scatter diagram developed in part (a) indicate about the relationship between the two variables? c. Compute and interpret the sample covariance. d. Compute and interpret the sample correlation coefficient.

Correct Answer : a. 5010-7.5-4.456.2519.36335111-6.5-3.442.2511.5622.15213-5.5-1.430.251.967.75514-2.5-0.46.250.1615615-1.50.62.250.36-0.958150.50.60.250.360162.51.66.252.56462164.51.620.252.567.265177.52.656.256.7619.566178.52.672.256.7622.1 292.552.4116 This indicates that there is a strong positive relationship between income and savings. b.

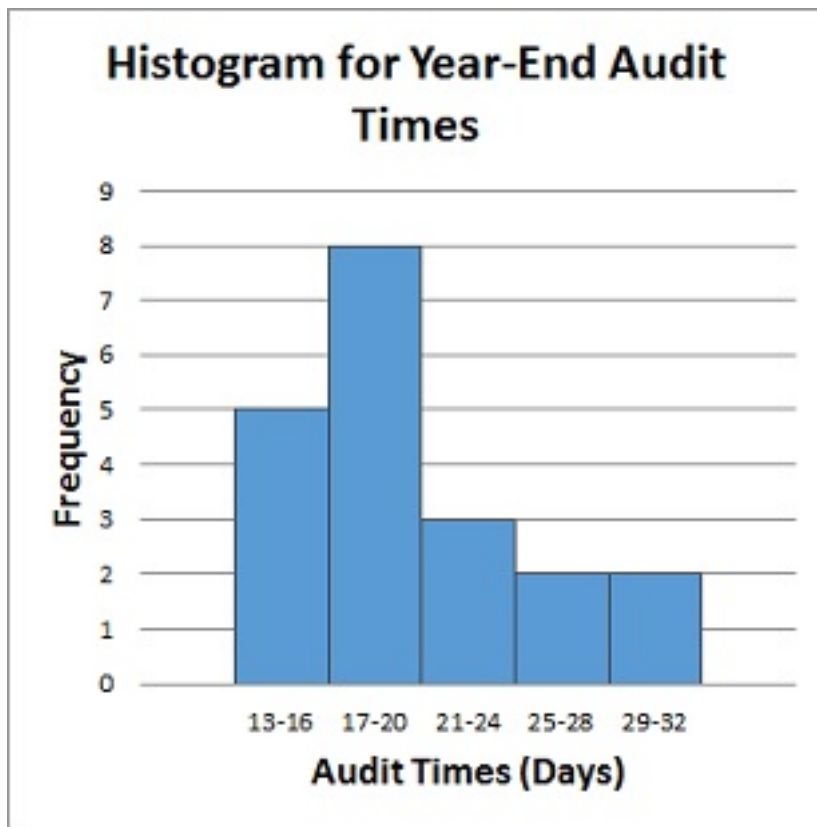
19 :



Below is a histogram for the number of days that it took Wyche Accounting to perform audits in the last quarter of last year. What is the relative frequency of the 21-24 bin??

Correct Answer : 0.15?

20 :



Below is a histogram for the number of days that it took Wyche Accounting to perform audits in the last quarter of last year. What is the relative frequency of the 25-28 bin??

Correct Answer : 0.10

21 : Below are the data for the number of days that it took Wyche Accounting to perform audits in the last quarter of last year. ?56, 42, 37, 29, 45, 51, 30, 25, 34, 57 ?What is(are) the mode(s) number of days that it took Wyche Accounting to perform audits in the last quarter of last year?

Correct Answer : None?

22 : What is(are) the mode(s) of the following data set??35, 42, 65, 42, 22

Correct Answer : 42

23 : The difference between the largest and the smallest data values is the _____.?

Correct Answer : range?

24 : The Excel function STANDARDIZE can be used to calculate _____.?

Correct Answer : z-scores?

25 : You would _____ a table if you wanted to display only data that match specific criteria.?

Correct Answer : filter?

26 : The _____ measures the variability of the middle 50% of a data set.

Correct Answer : IQR

27 : The _____ measures the variability of the middle 50% of a data set.

Correct Answer : CountryContinentGDP (millions of US\$)
MauritiusAfrica11,313MozambiqueAfrica12,827SenegalAfrica14,461Congo, Republic of theAfrica14,769Congo, Democratic Republic of theAfrica15,668GabonAfrica16,176UgandaAfrica16,810BotswanaAfrica17,570ZambiaAfrica19,206TanzaniaAfrica23,333Côte d'IvoireAfrica24,096BoliviaAfrica24,604JordanAfrica29,233EthiopiaAfrica31,256YemenAfrica33,675KenyaAfrica34,796LibyaAfrica36,874Sudan +South SudanAfrica64,750MoroccoAfrica99,241AngolaAfrica100,948AlgeriaAfrica190,709EgyptAfrica235,719NigeriaAfrica238,920South AfricaAfrica408,074CameroonAfricaEquatorial GuineaAfricaGhanaAfricaMaliAfricaNamibiaAfrica

MULTIPLE CHOICE

28 : A quantity of interest that can take on different values is known as a(n) _____.

- A : variable
- B : parameter
- C : sample
- D : observation

Correct Answer : A

29 : A set of values corresponding to a set of variables is defined as a(n) _____.

- A : quantity
- B : event
- C : factor
- D : observation

Correct Answer : D

30 : The difference in a variable measured over observations (time, customers, items, etc.) is known as _____.

- A : observed differences
- B : variation
- C : variable change
- D : descriptive analytics

Correct Answer : B

31 : _____ acts as a representative of the population.

- A : The variable
- B : The variance
- C : A sample
- D : A random variable

Correct Answer : C

32 : The act of collecting data that are representative of the population data is called _____.

- A : random sampling
- B : sample data
- C : population sampling

D : sources of data

Correct Answer : A

33 : The letter grades (A, B, C, D, F) of business analysis students are recorded by a professor. This variable's classification _____.

A : is quantitative data

B : cannot be determined

C : is categorical data

D : is time series data

Correct Answer : C

34 : The amount of time taken by each of 10 students in a class to complete an exam is an example of what type of data?

A : Cannot be determined

B : Categorical data

C : Time series data

D : Quantitative data

Correct Answer : D

35 : _____ are collected from several entities at the same point in time.

A : Time series data

B : Categorical and quantitative data

C : Cross-sectional data

D : Random data

Correct Answer : C

36 : Data collected from several entities over a period of time (minutes, hours, days, etc.) are called _____.

A : categorical and quantitative data

B : time series data

C : source data

D : cross-sectional data

Correct Answer : B

37 : In a(n) _____, one or more variables are identified and controlled or manipulated so that data can be obtained about how they influence the variable of interest identified first.

A : experimental study

B : observational study

C : categorical study

D : variable study

Correct Answer : A

38 : The data collected from the customers in restaurants about the quality of food is an example of a(n) _____.

A : variable study

B : cross-sectional study

C : experimental study

D : observational study

Correct Answer : D

39 : When working with large spreadsheets with many rows of data, it can be helpful to _____ the data to better find, view, or manage subsets of data.

A : split

B : sort and filter

C : chart

D : manipulate

Correct Answer : B

40 : When working with data sets in Excel, _____ can be used to automatically highlight cells that meet specified requirements.

A : averaging

B : conditional formatting

C : summing

D : sorting

Correct Answer : B

41 : A summary of data that shows the number of observations in each of several nonoverlapping bins is called a(n) _____.

A : frequency distribution

B : sample summary

C : bin distribution

D : observed distribution

Correct Answer : A

42 : Which of the following gives the proportion of items in each bin?

A : Frequency

B : Class size

C : Relative frequency

D : Bin proportion

Correct Answer : C

43 : Which of the following gives the proportion of items in each bin?

A : 0.31, 0.14, 0.37, 0.18

B : 0.37, 0.14, 0.31, 0.18

C : 0.16, 0.28, 0.33, 0.13

D : 0.18, 0.31, 0.37, 0.14

Correct Answer : D

44 : Which of the following gives the proportion of items in each bin?

A : 33%

B : 31%

C : 37%

D : 28%

Correct Answer : C

45 : Which of the following are necessary to be determined to define the classes for a frequency distribution with quantitative data?

- A : Number of nonoverlapping bins, width of each bin, and bin limits
- B : Width of each bin and bin lower limits
- C : Number of overlapping bins, width of each bin, and bin upper limits
- D : Width of each bin and number of bins

Correct Answer : A

46 : The goal regarding using an appropriate number of bins is to show the _____.

- A : number of observations
- B : number of variables
- C : variation in the data
- D : correlation in the data

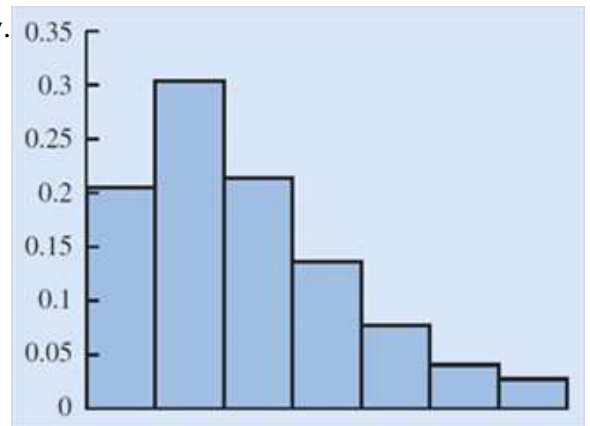
Correct Answer : C

47 : A _____ is a graphical summary of data previously summarized in a frequency distribution.

- A : box plot
- B : histogram
- C : line chart
- D : scatter chart

Correct Answer : B

48 : Identify the shape of the distribution in the figure below.



- A : Skewed left
- B : Symmetric
- C : Approximately bell shaped

?

- D : Skewed right

Correct Answer : D

49 : The _____ shows the number of data items with values less than or equal to the upper class limit of each class.

- A : cumulative frequency distribution
- B : frequency distribution

C : percent frequency distribution
D : relative frequency distribution

Correct Answer : A

50 : The _____ is a point estimate of the population mean for the variable of interest.

A : sample mean
B : median
C : sample
D : geometric mean

Correct Answer : A

51 : Compute the mean of the following data. 56, 42, 37, 29, 45, 51, 30, 25, 34, 57

A : 42.8
B : 52.1
C : 40.6
D : 39.4

Correct Answer : C

52 : Compute the median of the following data. 32, 41, 36, 24, 29, 30, 40, 22, 25, 37

A : 28
B : 31
C : 40
D : 34

Correct Answer : B

53 : Compute the mode for the following data. 12, 16, 19, 10, 12, 11, 21, 12, 21, 10

A : 21
B : 11
C : 12
D : 10

Correct Answer : C

54 : Compute the geometric mean for the following data on growth factors of an investment for 10 years. 1.10, 0.50, 0.70, 1.21, 1.25, 1.12, 1.16, 1.11, 1.13, 1.22

A : 1.0221
B : 1.0148
C : 1.0363
D : 1.1475

Correct Answer : B

55 : The simplest measure of variability is the _____.

A : variance
B : standard deviation
C : coefficient of variation
D : range

Correct Answer : D

56 : The variance is based on the

A : deviation about the median.

B : number of variables.

C : deviation about the mean.

D : correlation in the data.

Correct Answer : C

57 : Use technology to compute the standard deviation for the following sample data. 32, 41, 36, 24, 29, 30, 40, 22, 25, 37

A : 5.96

B : 6.41

C : 5.42

D : 6.75

Correct Answer : D

58 : Compute the coefficient of variation for the following sample data. 32, 41, 36, 24, 29, 30, 40, 22, 25, 37

A : 18.64%

B : 21.36%

C : 20.28%

D : 21.67%

Correct Answer : B

59 : Compute the 50th percentile for the following data. 10, 15, 17, 21, 25, 12, 16, 11, 13, 22

A : 18.6

B : 13.3

C : 15.5

D : 17.7

Correct Answer : C

60 : Compute the third quartile for the following data. 10, 15, 17, 21, 25, 12, 16, 11, 13, 22

A : 21.25

B : 15.5

C : 21.5

D : 11.75

Correct Answer : A

61 : Compute the IQR for the following data. 10, 15, 17, 21, 25, 12, 16, 11, 13, 22

A : 6.25

B : 7.75

C : 5.14

D : 9.50

Correct Answer : D

62 : A _____ determines how far a particular value is from the mean relative to the data set's standard deviation.

- A : coefficient of variation
- B : z-score
- C : variance
- D : percentile

Correct Answer : B

63 : For data having a bell-shaped distribution, approximately _____ percent of the data values will be within one standard deviation of the mean.

- A : 95
- B : 66
- C : 68
- D : 97

Correct Answer : C

64 : Any data value with a z-score less than -3 or greater than $+3$ is considered to be a(n) _____.

- A : outlier
- B : statistic
- C : whisker
- D : z-score value

Correct Answer : A

65 : Which of the following graphs provides information on outliers and IQR of a data set?

- A : Histogram
- B : Line chart
- C : Scatter chart
- D : Box plot

Correct Answer : D

66 : If the covariance between two variables is near 0, it implies that _____.

- A : a positive relationship exists between the variables
- B : the variables are not linearly related
- C : the variables are negatively related
- D : the variables are strongly related

Correct Answer : B

67 : The correlation coefficient will always take values _____.

- A : greater than 0
- B : between -1 and 0
- C : between -1 and $+1$
- D : less than -1

Correct Answer : C

68 : Scores on Ms. Bond's test have a mean of 70 and a standard deviation of 11. Michelle has a score of 48. Convert Michelle's score to a z-score. (Round to two decimal places if necessary.)

- A : 2
- B : 41.64

C : -2
D : 1.33

Correct Answer : C

69 : Scores on Ms. Nash's test have a mean of 64 and a standard deviation of 9. Steve has a score of 52. Convert Steve's score to a z-score. (Round to two decimal places if necessary.)

A : 1.33
B : 58.2
C : -2
D : -1.33

Correct Answer : D

70 : Scores on Ms. Bond's test have a mean of 70 and a standard deviation of 11. David has a score of 52 on Ms. Bond's test. Scores on Ms. Nash's test have a mean of 64 and a standard deviation of 6. Steven has a score of 52 on Ms. Nash's test. Which student has the higher standardized score?

A : Davids standardized score is -1.64 and Stevens standardized score is -2.00. Therefore, David has the higher standardized score.
B : Davids standardized score is -1.64 and Stevens standardized score is -2.00. Therefore, Steven has the higher standardized score.
C : Davids standardized score is 1.64 and Stevens standardized score is 2.00. Therefore, Steven has the higher standardized score.
D : Cannot be determined with the information provided.

Correct Answer : B

71 : The College Board originally scaled SAT scores so that the scores for each section were approximately normally distributed with a mean of 500 and a standard deviation of 100. Assuming scores follow a bell-shaped distribution, use the empirical rule to find the percentage of students who scored greater than 700.

A : 97.5%
B : 95%
C : 2.5%
D : 5%

Correct Answer : C

72 : The College Board originally scaled SAT scores so that the scores for each section were approximately normally distributed with a mean of 500 and a standard deviation of 100. Assuming scores follow a bell-shaped distribution, use the empirical rule to find the percentage of students who scored less than 400.

A : 16%
B : 68%
C : 84%
D : 32%

Correct Answer : A

73 : The College Board reported that the mean Math Level 2 SAT subject test score was 686 with a standard deviation of 96. Assuming scores follow a bell-shaped distribution, use the empirical rule to find the percentage of students who scored less than 494.

- A : 97.5%
- B : 95%
- C : 2.5%
- D : 5%

Correct Answer : C

74 : The College Board reported that the mean Math Level 2 SAT subject test score was 686 with a standard deviation of 96. Assuming scores follow a bell-shaped distribution, use the empirical rule to find the percentage of students who scored less than 494.

- A : 0.12
- B : 0.10
- C : 0.83
- D : Not enough information

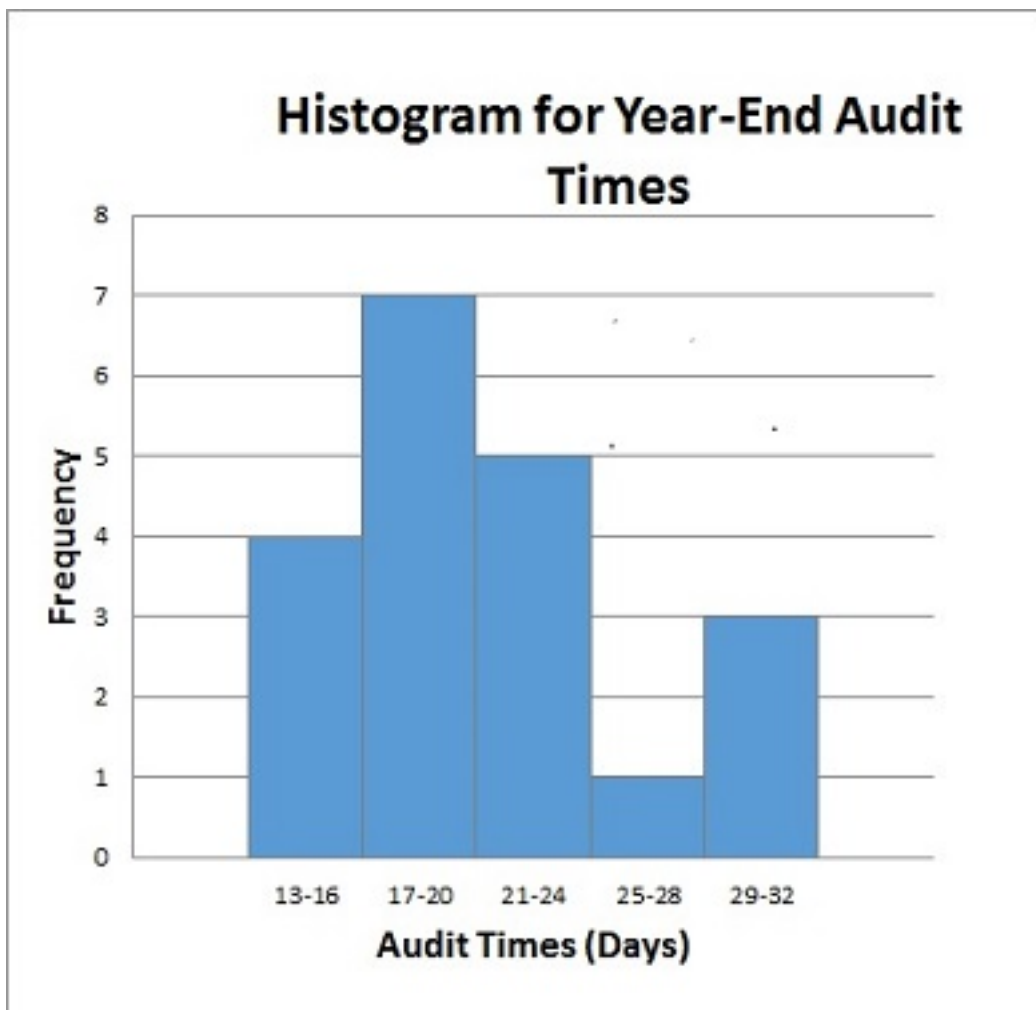
Correct Answer : A

75 : The College Board reported that the mean Math Level 2 SAT subject test score was 686 with a standard deviation of 96. Assuming scores follow a bell-shaped distribution, use the empirical rule to find the percentage of students who scored less than 494.

- A : 0.43
- B : 0.53
- C : 0.83
- D : Not enough information

Correct Answer : A

76 :

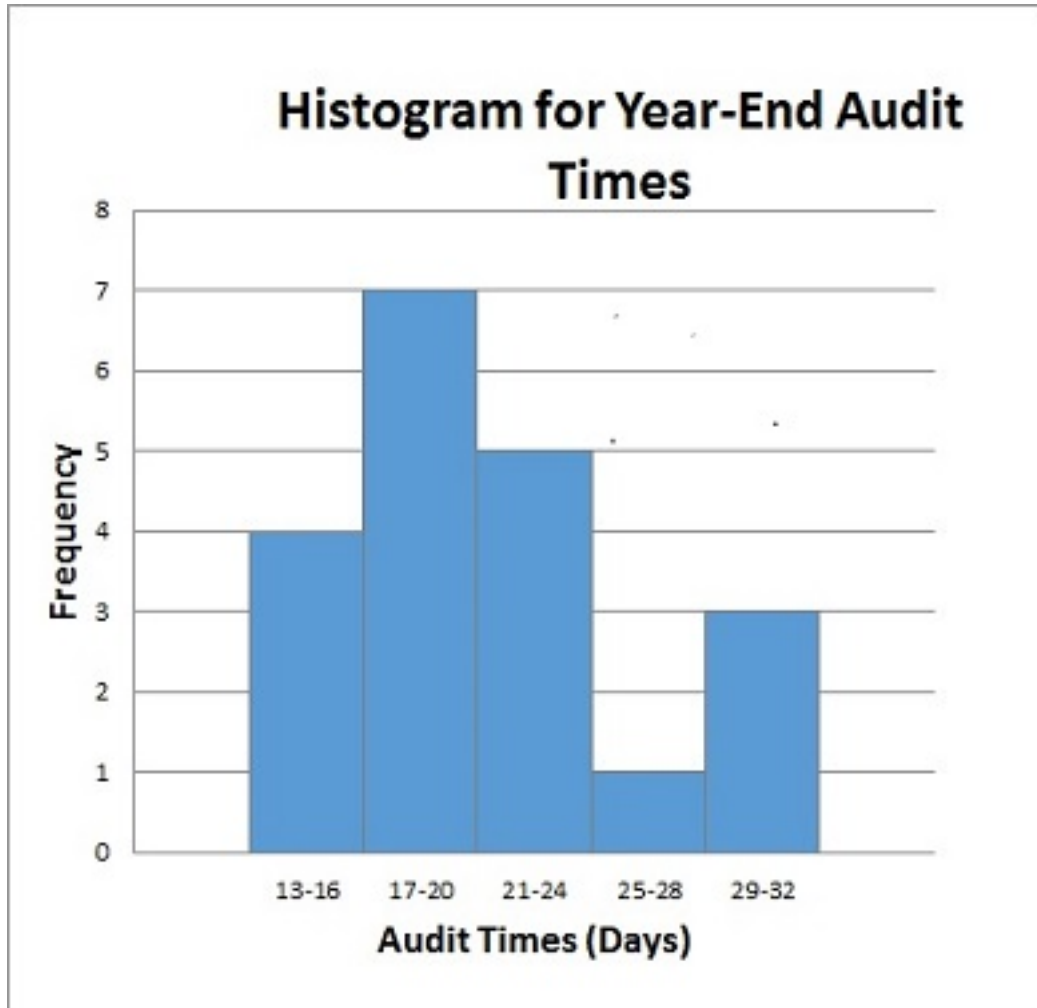


Below is a histogram for the number of days that it took Wyche Accounting to perform audits in the last quarter of last year. What is the relative frequency of the 21-24 bin???

- A : 0.05
- B : 0.14
- C : 0.25
- D : 2.5

Correct Answer : C

77 :



Below is a histogram for the number of days that it took Wyche Accounting to perform audits in the last quarter of last year. What is the frequency of the 25-28 bin???

- A : 0.05
- B : 1
- C : 0.5
- D : 4

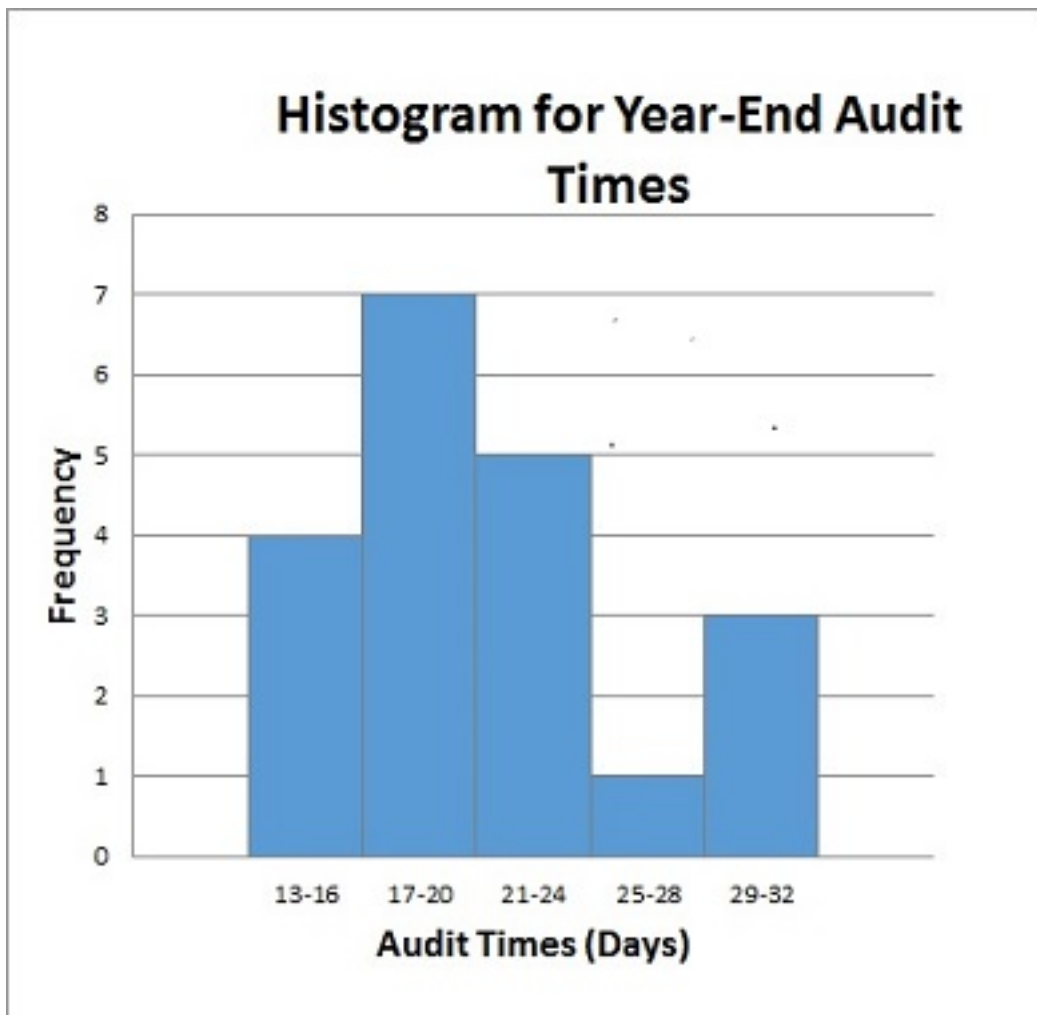
Correct Answer : B

78 : Below is a histogram for the number of days that it took Wyche Accounting to perform audits in the last quarter of last year. What is the frequency of the 25-28 bin???

- A : 1
- B : 99.12
- C : 0.88
- D : Not enough information

Correct Answer : A

79 :

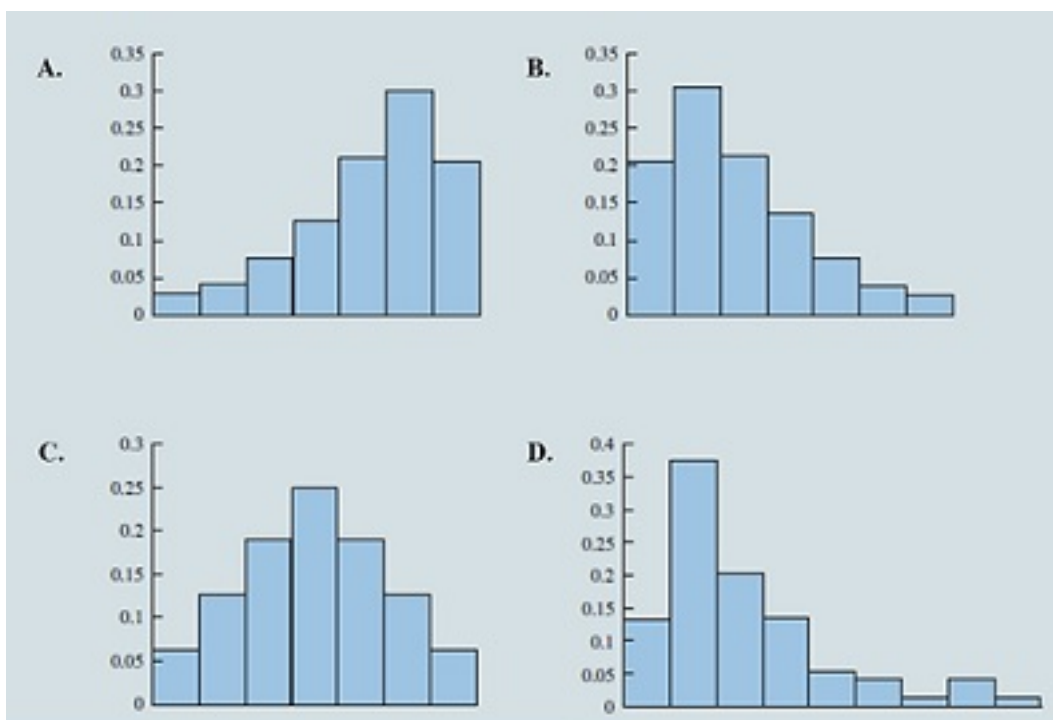


Below is a histogram for the number of days that it took Wyche Accounting to perform audits in the last quarter of last year. What is the bin size for the histogram???

- A : 3
- B : 4
- C : 16
- D : 5

Correct Answer : B

80 :

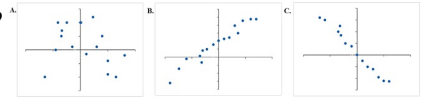


Select the histogram that is moderately skewed right.??

- A : A
- B : B
- C : C
- D : D

Correct Answer : B

81 : Which graph represents a negative linear relationship between x and y?



???

- A : A
- B : B
- C : C
- D : None of the graphs display a negative linear relationship.

Correct Answer : C

82 : Below is the data for the number of days that it took Wyche Accounting to perform audits in the last quarter of last year. 56, 42, 37, 29, 45, 51, 30, 25, 34, 57 What is the median number of days that it took Wyche Accounting to perform audits in the last quarter of last year??

- A : 41
- B : 40.6
- C : 39.5
- D : 42

Correct Answer : C

83 : What is the mode of the data set given below? 35, 47, 65, 47, 22 ?

- A : 47.5
- B : 47
- C : 65
- D : 22

Correct Answer : B

84 : A sample of 13 adult males' heights are listed below. 70, 72, 71, 70, 69, 73, 69, 68, 70, 71, 67, 71, 74 Find the range of the data. ?

- A : 7
- B : 6.5
- C : 5
- D : 4

Correct Answer : A

85 : A sample of 13 adult males' heights are listed below. 70, 72, 71, 70, 69, 73, 69, 68, 70, 71, 67, 71, 74 Find the range of the data. ?

- A : The last names must be sorted from A to Z.
- B : The last names must be sorted from Z to A.
- C : The last names must be sorted from the earliest to the latest that has been added to the list.
- D : James should use the Sort function to organize the data into order of sales.

Correct Answer : B

86 : A sample of 13 adult males' heights are listed below. 70, 72, 71, 70, 69, 73, 69, 68, 70, 71, 67, 71, 74. Find the range of the data. ?

A : Use the Cut and Paste function to reorganize the data into order of sales.

B : Use the Filter function to organize the data into order of sales.

C : Use the Order function to organize the data into order of sales.

D : Use the Sort function to organize the data into order of sales.

Correct Answer : D

87 : Which Excel command will return all modes when more than one mode exists??

A : MODE.MULT

B : MODE.SNGL

C : MODE

D : MODES

Correct Answer : A

88 : In a survey of patients in a local hospital, 62.42% of the respondents indicated that the health care providers needed to spend more time with each patient. Who makes up the population??

A : All patients in a local hospital

B : All survey respondents

C : Hospital patients

D : Cannot be determined from the information given

Correct Answer : A

89 : In a survey of patients in a local hospital, 62.42% of the respondents indicated that the health care providers needed to spend more time with each patient. Who makes up the sample??

A : All patients in a local hospital

B : All survey respondents

C : Hospital patients

D : Cannot be determined from the information given

Correct Answer : B

90 : A manager of a fast food restaurant wants the drive-thru employee to ask every fifth customer if he or she is satisfied with the service. Who makes up the population?

A : All customers who use the drive-thru window of this fast food restaurant

B : All survey respondents

C : All customers of this restaurant

D : The proportion of customers who say they are satisfied with their service

Correct Answer : A

91 : A manager of a fast food restaurant wants the drive-thru employee to ask every fifth customer if he or she is satisfied with the service. Who makes up the sample?

A : All customers who use the drive-thru window of this fast food restaurant

B : All survey respondents

C : All customers of this restaurant

D : The proportion of customers who say they are satisfied with their service

Correct Answer : B

92 : Which of the following relationships would have a negative correlation coefficient?

A : Supply and demand

B : Amount of a bill at a restaurant and the amount of the tip

C : Cost of a car and the amount of tax to be paid

D : The square footage of a home and the price of the home

Correct Answer : A

93 : The distribution of hourly sales for a local family owned store is normally distributed with a mean of \$225 per hour and a standard deviation of \$75 per hour. Which of the following intervals contains the middle 95% of hourly sales?

A : \$75 to \$375

B : \$150 to \$300

C : \$175 to \$275

D : \$125 to \$325

Correct Answer : A

94 : Data sets commonly include observations with missing values for one or more variables. In some cases missing data naturally occur; these are called _____.

A : legitimately missing data

B : data cleansing

C : illegitimate missing data

D : missing random data

Correct Answer : A

95 : _____ is the process of removing variables from the analysis without losing crucial information.

A : Data Cleansing

B : Dimension reduction

C : Legitimate missing data

D : Missing random data

Correct Answer : B