

## Chapter 2: Solving Problems with Statistical Analysis Tools

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### TRUE/FALSE

1. Microsoft Excel provides a variety of predefined functions, including statistical functions, that you can use to determine such values as the arithmetic mean, median, mode, and standard deviation of a set of data.

ANS: T                      PTS: 1                      REF: 79

2. The median is the arithmetic average of a set of numbers.

ANS: F                      PTS: 1                      REF: 80

3. The standard deviation tells you how closely together values are distributed.

ANS: T                      PTS: 1                      REF: 82

4. The ROUND argument *num\_digits* is a single value that can be a constant, a cell reference where the cell contains a numerical value, or another formula that results in a single number value.

ANS: F                      PTS: 1                      REF: 85

5. The formula =ROUNDUP(3.432,1) rounds the value 3.432 up to the next highest tenth, or 3.5.

ANS: T                      PTS: 1                      REF: 86

6. The Format Painter can be used to copy a format into multiple noncontiguous cells.

ANS: T                      PTS: 1                      REF: 88

7. Selecting the Set precision as displayed workbook option permanently changes the values in all workbook cells from full precision, which is six digits, to whatever format is displayed in that cell.

ANS: F                      PTS: 1                      REF: 88

8. If you select the Paste option button called Values, you will paste only the values; the formulas and any formatting from the original cell(s) are not pasted.

ANS: T                      PTS: 1                      REF: 90

9. The Paste Special dialog box offers Operation options, which allow you to paste values using only three arithmetic operations: Add, Subtract, and Multiply.

ANS: F                      PTS: 1                      REF: 92

10. The statistical function MODE returns the most frequently occurring value in a range of data.

ANS: T                      PTS: 1                      REF: 93

11. The technique used to fix certain rows while you scroll to other rows in a worksheet is called freezing panes.

ANS: T                   PTS: 1                   REF: 95

12. A way to analyze the differences between two sets of data is to look at the percent difference of a value in one data set compared with that value in the second data set.

ANS: T                   PTS: 1                   REF: 99

13. The syntax of the RANK.EQ function is as follows: RANK(number,sort,order).

ANS: F                   PTS: 1                   REF: 105 | 106

14. With the LARGE function, the argument called *analysis* describes the range of cells being evaluated.

ANS: F                   PTS: 1                   REF: 107

15. The SMALL function determines the *n*th smallest value in a range.

ANS: T                   PTS: 1                   REF: 109

16. The COUNTONLY function counts the number of items in a range that meet specified criteria.

ANS: F                   PTS: 1                   REF: 111

17. The values TRUE and FALSE are referred to as Boolean values.

ANS: T                   PTS: 1                   REF: 112

18. Relational operators are used to compare data.

ANS: T                   PTS: 1                   REF: 113

19. Result Seek uses an iterative approach to finding the right input that achieves the desired result, or goal, in the dependent cell.

ANS: F                   PTS: 1                   REF: 134

20. Simulation is an analytical method that creates artificially generated data to imitate real data.

ANS: T                   PTS: 1                   REF: 139

### **MODIFIED TRUE/FALSE**

1. The median is the arithmetic value that occurs in the middle of a data set when organized from lowest to highest, where half the values are less than and half the values are greater than the median value.
- \_\_\_\_\_

ANS: T   PTS: 1                   REF: 80

2. The Paste option called Paste Special pastes a connection to the original cells, including the applied formatting. \_\_\_\_\_

ANS: F

Paste Link  
Paste link  
paste link

PTS: 1 REF: 91

3. In the function RANK.EQ(number,ref,order), the number argument refers to the value to be ranked.  
\_\_\_\_\_

ANS: T PTS: 1 REF: 105

4. The BIG function determines the *n*th largest value in a range. \_\_\_\_\_

ANS: F, LARGE

PTS: 1 REF: 107

5. To obtain the value for the lowest or highest Friction Coefficient values, the MIN and MAX functions would suffice. \_\_\_\_\_

ANS: T PTS: 1 REF: 107

6. The critical argument is essentially a test that the data must meet in order for it to be counted in the grouping. \_\_\_\_\_

ANS: F, criteria argument

PTS: 1 REF: 111

7. To determine if a value is greater than or equal to another value, you can use syntax operators.  
\_\_\_\_\_

ANS: F, relational

PTS: 1 REF: 113

8. Wingdings are symbols that you can use as part of the criteria to search for text strings; each symbol can be substituted for a character or set of characters. \_\_\_\_\_

ANS: F, Wildcards

PTS: 1 REF: 113

9. The COUNTIF function accommodates a(n) single contiguous range argument.  
\_\_\_\_\_

ANS: T PTS: 1 REF: 116

10. In the SUMIF function, the criteria argument identifies the cell range where the criteria are located.  
\_\_\_\_\_

ANS: F, range

PTS: 1 REF: 118

11. The ADDIF function adds all the values in a range that meet specified criteria.

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ANS: F, SUMIF

PTS: 1                    REF: 118

12. The Format Cells dialog box, which can be opened from the Number group Dialog Box Launcher on the HOME tab, provides many options for changing the display of cell values.

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ANS: T

PTS: 1

REF: 125

13. Excel uses the Goal Find tool to try various input values in order to calculate the required input to achieve your desired outcome. \_\_\_\_\_

ANS: F, Goal Seek

PTS: 1

REF: 131

14. The RANDOM function randomly assigns a number between two specified values.

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ANS: F, RANDBETWEEN

PTS: 1

REF: 140

15. You can recalculate a worksheet at any time by pressing the F9 function key or by selecting the Refresh button found in the Calculation group on the FORMULAS tab on the ribbon.

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ANS: F, Calculate Now

PTS: 1

REF: 142

## MULTIPLE CHOICE

1. Microsoft Excel allows you to use \_\_\_\_, such as LARGE, SMALL, and RANK.EQ, that help you to structure and analyze data in meaningful ways.

a. functions

c. rules

b. charts

d. arguments

ANS: A

PTS: 1

REF: 79

2. The \_\_\_\_ is the arithmetic average of a set of numbers.

a. mean

c. mode

b. median

d. standard deviation

ANS: A

PTS: 1

REF: 80

3. The \_\_\_\_ is the arithmetic value that occurs in the middle of a data set when organized from lowest to highest, where half the values are less than and half the values are greater than the median value.

a. mean

c. mode

b. median d. standard deviation

ANS: B PTS: 1 REF: 80

4. The \_\_\_\_ is the arithmetic value that occurs most frequently in a data set.
- a. mean
  - b. median
  - c. mode
  - d. standard deviation

ANS: C PTS: 1 REF: 80

5. The \_\_\_\_ is a measure of how widely the data values are dispersed from the arithmetic mean.
- a. mean
  - b. median
  - c. mode
  - d. standard deviation

ANS: D PTS: 1 REF: 80

6. Consider the following five values: 1, 1, 6, 7, and 10. The arithmetic mean of these values is \_\_\_\_.
- a. 1
  - b. 3.94
  - c. 5
  - d. 6

ANS: C PTS: 1 REF: 80

7. A(n) \_\_\_\_ distribution exhibits an equal number of occurrences of data values both below and above the arithmetic mean.
- a. normal
  - b. skewed
  - c. simulated
  - d. angular

ANS: A PTS: 1 REF: 80

8. The \_\_\_\_ of a normal distribution are the same value.
- a. mean, median, and mode
  - b. mean and median
  - c. mean, median, mode, and standard deviation
  - d. median and mode

ANS: A PTS: 1 REF: 80

9. The \_\_\_\_ function algorithm rounds down all values of less than half the range, and rounds up values from half the range and above.
- a. AVERAGE
  - b. NORMAL
  - c. DOWN
  - d. ROUND

ANS: D PTS: 1 REF: 86

10. The ROUND argument *num\_digits* is the specified number of \_\_\_\_.
- a. decimal places
  - b. digits
  - c. integers
  - d. operators

ANS: A PTS: 1 REF: 85

11. If you wrote the formula =ROUNDDOWN (25.83%,2), the resulting value would be \_\_\_\_.
- a. 26%
  - b. 25%
  - c. 25.8%
  - d. 25.83%

ANS: B PTS: 1 REF: 87

12. If you wrote the formula =ODD(1.23), the resulting value would be \_\_\_\_.

- a. 1
- b. 2
- c. 3
- d. 4

ANS: C                      PTS: 1                      REF: 87

13. If you wrote the formula =TRUNC(-4.382,1), the resulting value would be \_\_\_\_.
- a. -4
  - b. -4.3
  - c. -4.38
  - d. -4.382

ANS: B                      PTS: 1                      REF: 87

14. Use \_\_\_\_ to copy a format from one cell to another cell or group of contiguous cells.
- a. the Format Painter
  - b. the Format Copier
  - c. Paint
  - d. Special Format

ANS: A                      PTS: 1                      REF: 88

15. Selecting the Set precision as displayed workbook option permanently changes the values in all workbook cells from full precision (\_\_\_\_ digits) to whatever format is displayed in that cell, including the number of decimal places.

- a. 5
- b. 9
- c. 15
- d. 21

ANS: C                      PTS: 1                      REF: 88

16. The simplest method to copy information is to first select the information you want to copy, and then use the Copy button and the Paste button in the Clipboard group on the \_\_\_\_ tab.

- a. FORMAT
- b. HOME
- c. INSERT
- d. DATA

ANS: B                      PTS: 1                      REF: 90

17. The Paste option called \_\_\_\_ pastes the contents of the copied cells(s) as a picture.

- a. Picture
- b. As Picture
- c. Paste Picture
- d. Paste Graphic

ANS: A                      PTS: 1                      REF: 91

18. The Paste option called \_\_\_\_ pastes the formulas and formatting from the original range of cells, but reverses the orientation so that the rows of the original cell range become the columns in the pasted range, and the original columns become rows.

- a. Transpose
- b. Switch
- c. Wildcard
- d. Turn

ANS: A                      PTS: 1                      REF: 90

19. The Paste option button option called \_\_\_\_ pastes the formulas and formatting from the original cell(s), but not the format of the cell borders.

- a. Keep Source Formatting
- b. No Borders
- c. Document Theme
- d. Destination Formatting

ANS: B                      PTS: 1                      REF: 90

20. The Paste option button called \_\_\_\_ pastes the data and formulas from the original cell(s), and maintains the column width of the original cell(s).

- a. Column Stay
- c. Keep Source Column Widths

- b. Width Only
- d. Keep Column Size

ANS: C                    PTS: 1                    REF: 90

21. The Paste Special dialog box offers the \_\_\_\_ option, which enables you to copy and paste a cell range that contains one or more blank cells where the blank cells are not pasted over any existing values in the range into which they are pasted.

- a. Copy Blanks
- c. Comments
- b. Blank Over
- d. Skip Blanks

ANS: D                    PTS: 1                    REF: 92

22. The MODE.SNGL, MEDIAN, and STDEV.S functions work in a similar way, containing only one type of argument, which is \_\_\_\_.

- a. sort order
- c. a range of values for comparison
- b. a list of values
- d. ranking parameters

ANS: B                    PTS: 1                    REF: 93

23. A list of values can contain \_\_\_\_.

- a. constants and cell references
- c. a two-dimensional block of cells
- b. a range of cells along a column or row
- d. all of the above

ANS: D                    PTS: 1                    REF: 93

24. With a \_\_\_\_ function, you include that function inside another formula or function as one of its arguments.

- a. nested
- c. child
- b. parent
- d. linked

ANS: A                    PTS: 1                    REF: 94

25. The technique used to fix certain rows while you scroll to other rows in a worksheet is called \_\_\_\_ panes.

- a. freezing
- c. keeping
- b. sticking
- d. locking

ANS: A                    PTS: 1                    REF: 95

26. A technique you can use to see different parts of the screen at the same time is to \_\_\_\_ the window by dragging either the horizontal split box or the vertical split box to create separate, scrollable panes.

- a. split
- c. crack
- b. delete
- d. separate

ANS: A                    PTS: 1                    REF: 96 | 97

27. To calculate a(n) \_\_\_\_ between two data sets, you subtract the old value from the new value and then divide the difference by the old value.

- a. average difference
- c. percent difference
- b. standard deviation difference
- d. none of the above

ANS: C                    PTS: 1                    REF: 99

28. The \_\_\_\_ function allows you to sort a list and then count the number of entries either above or below the value in question.

- a. RANK.EQ
- c. FIND

b. POSITION d. COUNT

ANS: A PTS: 1 REF: 105

29. In the LARGE function, the second argument, *k*, is the desired ranking, where 1 is \_\_\_\_.
- a. the largest value
  - b. the smallest value
  - c. required
  - d. not allowed

ANS: A PTS: 1 REF: 107

30. In the SMALL function, the first argument, *array*, is \_\_\_\_.
- a. a formula
  - b. the desired ranking
  - c. a range of cells
  - d. a time period

ANS: C PTS: 1 REF: 109

31. The syntax of the COUNTIF function is \_\_\_\_.
- a. =COUNTIF(range,array)
  - b. =COUNTIF(ref,range)
  - c. =COUNTIF(array,k)
  - d. =COUNTIF(range,criteria)

ANS: D PTS: 1 REF: 111

32. The values TRUE and FALSE are referred to as \_\_\_\_.
- a. operational imperatives
  - b. Boolean values
  - c. base values
  - d. syntax neutral

ANS: B PTS: 1 REF: 112

33. The symbols > and >= are examples of \_\_\_\_.
- a. relational operators
  - b. relational values
  - c. arrays
  - d. reference operators

ANS: A PTS: 1 REF: 113

34. \_\_\_\_ are symbols that you can use as part of the criteria to search for text strings in which the symbol can be substituted for another character or set of characters.
- a. Wingdings
  - b. Wildwheels
  - c. Open Text symbols
  - d. Wildcards

ANS: D PTS: 1 REF: 113

35. The \_\_\_\_ wildcard specifies that any number of characters can be substituted.
- a. asterisk (\*)
  - b. question mark (?)
  - c. forward slash (/)
  - d. backward slash (\)

ANS: A PTS: 1 REF: 113

36. The \_\_\_\_ wildcard specifies that a single character can be substituted.
- a. asterisk (\*)
  - b. question mark (?)
  - c. forward slash (/)
  - d. backward slash (\)

ANS: B PTS: 1 REF: 113 | 114

37. Wildcards work with \_\_\_\_.
- a. numbers
  - b. dates
  - c. text
  - d. all of the above



ANS: C                    PTS: 1                    REF: 114

38. With the COUNTIF function, the first time it encounters the comma delimiter, it assumes that what follows is \_\_\_\_.
- a. a date
  - b. a number
  - c. additional ranges
  - d. the criteria

ANS: D                    PTS: 1                    REF: 116

39. The Format Cells dialog box, which can be opened from the \_\_\_\_ group Dialog Box Launcher on the HOME tab, provides many options for changing the display of cell values.
- a. Cells
  - b. Data
  - c. Number
  - d. Data

ANS: C                    PTS: 1                    REF: 125

40. A format code can include up to four parts, each separated by a semicolon, and does NOT include \_\_\_\_.
- a. negative number format
  - b. positive number format
  - c. zero value format
  - d. placeholder format

ANS: D                    PTS: 1                    REF: 127

41. The \_\_\_\_ symbol acts as a digit placeholder that displays significant digits.
- a. #
  - b. 0
  - c. ?
  - d. %

ANS: A                    PTS: 1                    REF: 128

42. The \_\_\_\_ symbol acts as a digit placeholder that displays both significant and insignificant zeros.
- a. #
  - b. 0
  - c. ?
  - d. %

ANS: B                    PTS: 1                    REF: 128

43. The \_\_\_\_ symbol acts as a digit placeholder that does not display insignificant digits, but does hold a place so that decimal points will align.
- a. #
  - b. 0
  - c. ?
  - d. %

ANS: C                    PTS: 1                    REF: 128

44. The \_\_\_\_ symbol inserts a percentage sign and automatically multiplies the value inserted by 100 for display.
- a. #
  - b. 0
  - c. ?
  - d. %

ANS: D                    PTS: 1                    REF: 128

45. The \_\_\_\_ symbol(s) insert(s) a comma as a thousands separator or as a scaling operator.
- a. ,
  - b. \*
  - c. ""
  - d. @

ANS: A                    PTS: 1                    REF: 128



54. The Step button in Goal Seek \_\_\_\_.
- a. allows you to step through each iteration one step at a time
  - b. returns the data in separate spreadsheets
  - c. walks you through the steps similar to a wizard
  - d. none of the above

ANS: A                      PTS: 1                      REF: 134

55. Once the Goal Seek Status dialog box gives the target value, you can click \_\_\_\_ to update your worksheet with the new values based on Goal Seek.
- a. OK
  - b. Update
  - c. New
  - d. Cancel

ANS: A                      PTS: 1                      REF: 132

56. In Goal Seek, if the target value cannot be reached exactly, the \_\_\_\_.
- a. Goal Seek dialog box asks for your input
  - b. value of zero is listed as the current value
  - c. closest value found is listed as the current value
  - d. none of the above

ANS: C                      PTS: 1                      REF: 132

57. Goal Seek uses \_\_\_\_ approach to finding the right input that achieves the desired result, or goal, in the dependent cell.
- a. a database
  - b. an iterative
  - c. a scientific
  - d. a random

ANS: B                      PTS: 1                      REF: 134

58. Goal Seek continues to enter values until it reaches \_\_\_\_.
- a. 0.001 of the goal
  - b. 100 iterations
  - c. either a or b
  - d. neither a nor b

ANS: C                      PTS: 1                      REF: 134

59. The \_\_\_\_ function provided by Excel averages a series of values if they meet specific criteria.
- a. COUNTIF
  - b. SUMIF
  - c. AVERAGE
  - d. none of the above

ANS: D                      PTS: 1                      REF: 136

60. Goal Seek allows you to vary \_\_\_\_ input(s).
- a. a single
  - b. up to 3
  - c. up to 5
  - d. up to 10

ANS: A                      PTS: 1                      REF: 134

61. The input for Goal Seek can be \_\_\_\_.
- a. a constant value
  - b. derived from a formula
  - c. either a or b
  - d. neither a nor b

ANS: A                      PTS: 1                      REF: 135

62. The syntax of the AVERAGEIF function \_\_\_\_ is very similar to the syntax of the SUMIF function.

- a. (range,criteria,average\_range)
- b. (criteria,average,range)
- c. (ref,range,criteria)
- d. (array,average\_range,ref)

ANS: A                      PTS: 1                      REF: 136

63. \_\_\_\_ is an analytical method that creates artificially generated data to imitate real data.
- a. Simulation
  - b. Play acting
  - c. Role playing
  - d. Regression

ANS: A                      PTS: 1                      REF: 139

64. A simulation that is based on randomly generating specific values that have an equal chance of appearing, such as numbers on a set of dice, is often referred to as a \_\_\_\_ simulation.
- a. Las Vegas
  - b. Blackjack
  - c. Lucky 7
  - d. Monte Carlo

ANS: D                      PTS: 1                      REF: 139

65. The \_\_\_\_ function randomly assigns a number between two specified values.
- a. RANGERANDOM
  - b. RANDBETWEEN
  - c. INBETWEEN
  - d. RANDOM

ANS: B                      PTS: 1                      REF: 140

66. The \_\_\_\_ function returns a random value between 0 and 1.
- a. RANDUNDER
  - b. RAND
  - c. RANDZERO
  - d. RANDONE

ANS: B                      PTS: 1                      REF: 140

67. The formula =RANDBETWEEN(1,3) randomly returns a(n) \_\_\_\_.
- a. integer with three numbers
  - b. 1, 2, or 3
  - c. number with three decimal places
  - d. none of the above

ANS: B                      PTS: 1                      REF: 140

68. Automatic calculation can be turned off from the ribbon or from the \_\_\_\_ dialog box accessed via the FILE tab.
- a. Excel Options
  - b. Worksheet Options
  - c. Automatic Options
  - d. Ribbon Options

ANS: A                      PTS: 1                      REF: 142

69. When working with the RAND and RANDBETWEEN functions, every time you enter another value in a cell anywhere on the worksheet, the random values \_\_\_\_.
- a. automatically change
  - b. prompt you with a dialog box
  - c. prompt you with an error message
  - d. stay the same

ANS: A                      PTS: 1                      REF: 141

70. You can recalculate a worksheet at any time by pressing the \_\_\_\_ function key.
- a. F5
  - b. F7
  - c. F8
  - d. F9

ANS: D                      PTS: 1                      REF: 142

### Case-Based Critical Thinking Questions

**Case 2-1**

Relational Operator
>
<
>=
<=
=
<>

Julia is learning how to use relational operators with the COUNTIF function. Her boss handed her the chart in the above figure and asked her to solve some everyday business problems.

71. Julia wants to take a count of all employees who are participating in more than one committee. The data is listed in column F of a worksheet. The correct formula would be \_\_\_\_.

- a. =COUNTIF(F3:F13,"<1")
- b. =COUNTIF(F3:F13,">1")
- c. =COUNTIF(F3:F13,">=1")
- d. =COUNTIF(F3:F13,"=1")

ANS: B                      PTS: 1                      REF: 112                      TOP: Critical Thinking

72. Julia wants to take a count of all employees who are participating in exactly one committee. The correct formula would be \_\_\_\_.

- a. =COUNTIF(F3:F13,"<1")
- b. =COUNTIF(F3:F13,">1")
- c. =COUNTIF(F3:F13,">=1")
- d. =COUNTIF(F3:F13,"=1")

ANS: D                      PTS: 1                      REF: 112                      TOP: Critical Thinking

73. After showing her boss the data, he asked her to run one more COUNTIF to determine who is on one or more committees. The correct formula would be \_\_\_\_.

- a. =COUNTIF(F3:F13,"<1")
- b. =COUNTIF(F3:F13,">1")
- c. =COUNTIF(F3:F13,">=1")
- d. =COUNTIF(F3:F13,"=1")

ANS: C                      PTS: 1                      REF: 112                      TOP: Critical Thinking

74. On a separate project, the head of Human Resources is looking for a list of people who do *not* have 100% attendance. In the database, the number 1 means 100% attendance; all other numbers indicate that some work was missed (for example, .75 is 75% attendance). The data is listed in column E of a worksheet. The correct COUNTIF formula would be \_\_\_\_.

- a. =COUNTIF(E3:E13,"<>1")
- b. =COUNTIF(E3:E13,"=1")
- c. =COUNTIF(E3:E13,">=1")
- d. =COUNTIF(E3:E13,"<1")

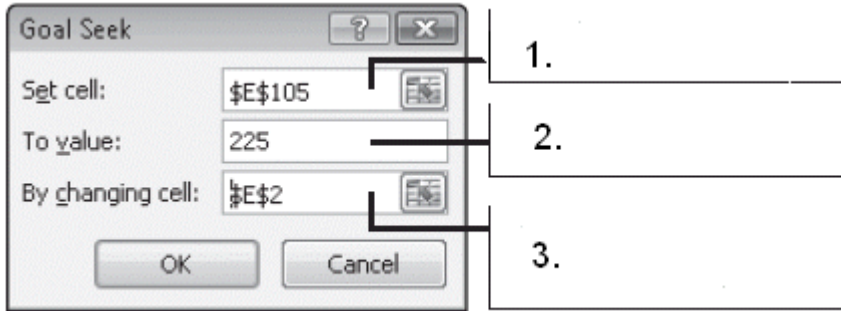
ANS: A                      PTS: 1                      REF: 112                      TOP: Critical Thinking

75. If the Human Resources director wanted a list of people who *do* have 100% attendance, the correct formula would be \_\_\_\_.

- a. =COUNTIF(E3:E13,"<>1")
- b. =COUNTIF(E3:E13,"=1")
- c. =COUNTIF(E3:E13,">=1")
- d. =COUNTIF(E3:E13,"<1")

ANS: B                      PTS: 1                      REF: 112                      TOP: Critical Thinking

**Case-Based Critical Thinking Questions**  
**Case 2-2**



Nevia is using Goal Seek for the first time. She is determining what to put in each text box inside the Goal Seek dialog box shown in the above figure.

76. If you were to help Nevia, you would tell her that the space labeled #1 in the above figure \_\_\_\_.
- indicates the cell containing the output value
  - indicates the desired output value
  - indicates the cell containing the data to vary in order to reach the desired output
  - none of the above

ANS: A                      PTS: 1                      REF: 132                      TOP: Critical Thinking

77. Nevia has told you that the desired value is 325. In which text box should she insert the desired value?
- #1
  - #2
  - #3
  - none of the above

ANS: B                      PTS: 1                      REF: 132                      TOP: Critical Thinking

78. Nevia's boss stops by her desk and asks which of the three numbers in the above figure is considered to be the dependent data, and she correctly answers \_\_\_\_.
- #1
  - #2
  - #3
  - none of the above

ANS: C                      PTS: 1                      REF: 132                      TOP: Critical Thinking

79. At the end of the project, Nevia is very pleased with the results and is giving a demo of Goal Seek to a few of her co-workers. To open Goal Seek, her first step is to click the \_\_\_\_ tab on the ribbon.
- FORMULAS
  - PAGE LAYOUT
  - REVIEW
  - DATA

ANS: D                      PTS: 1                      REF: 132                      TOP: Critical Thinking

80. Once Nevia clicks the correct tab, to open Goal Seek, she clicks the \_\_\_\_ button in the Data Tools group, then selects Goal Seek.
- What-If Analysis
  - Simulation
  - Goal Minder
  - Data Dialog

ANS: A                      PTS: 1                      REF: 132                      TOP: Critical Thinking

**COMPLETION**

1. \_\_\_\_\_ is a measure of how widely the data values are dispersed from the arithmetic mean.

ANS: Standard deviation

PTS: 1 REF: 80

2. To specify that a value should be precisely stored to the nearest hundredth, use the \_\_\_\_\_ function.

ANS:  
ROUND  
Round  
round

PTS: 1 REF: 84 | 85

3. The formula = \_\_\_\_\_(3.432,1) rounds the value 3.432 up to the next highest tenth, or 3.5.

ANS:  
ROUNDUP  
Roundup  
roundup

PTS: 1 REF: 86

4. The \_\_\_\_\_ Paste option button pastes the formulas and formatting from the original cell(s), but not the format of the cell borders.

ANS: No Borders

PTS: 1 REF: 90

5. The \_\_\_\_\_ Paste option button pastes only the formulas from the original (copied) cell(s).

ANS: Formulas

PTS: 1 REF: 90

6. The \_\_\_\_\_ Paste option button pastes values from the original cell(s) and formatting.

ANS:  
Values & Source Formatting  
Values and Source Formatting  
values & source formatting  
values and source formatting

PTS: 1 REF: 90

7. The \_\_\_\_\_ Paste option button pastes a connection to the original cell, including the applied formatting.

ANS:  
Paste Link  
paste link

PTS: 1                    REF: 91

8. The MODE.SNGL, MEDIAN, and STDEV.S functions work in a similar way, containing only one type of \_\_\_\_\_, which is a list of values.

ANS: argument

PTS: 1                    REF: 93

9. When you \_\_\_\_\_ a function, you include that function inside another formula or function as one of its arguments.

ANS: nest

PTS: 1                    REF: 94

10. Excel provides several tools for displaying and scrolling columns and/or rows so that certain areas can be fixed, or \_\_\_\_\_, and the remainder of the worksheet can be scrolled easily.

ANS: frozen

PTS: 1                    REF: 95

11. To split an Excel window vertically, click the \_\_\_\_\_ after clicking to the right and below the location where you want to divide the window.

ANS: split button

PTS: 1                    REF: 96

12. To split the screen both vertically and horizontally so there are five rows at the top and three columns on the left, place the cursor in the \_\_\_\_\_ column displayed on the screen in the sixth row of the worksheet.

ANS:  
fourth  
4th

PTS: 1                    REF: 96

13. To calculate a(n) \_\_\_\_\_ between two data sets, you subtract the old value from the new value and then divide the difference by the old value.

ANS: percent difference

PTS: 1                    REF: 99

14. In the function RANK.EQ(number,ref,[order]), the \_\_\_\_\_ argument is the range of values the number is being compared with.



ANS:  
REF  
Ref  
ref

PTS: 1                    REF: 105

15. The \_\_\_\_\_ function counts the number of items in a range that meet specified criteria.

ANS: COUNTIF

PTS: 1                    REF: 111

16. Wildcards do not work with values that are numbers or dates, only \_\_\_\_\_.

ANS: text

PTS: 1                    REF: 114

17. The relational operator  $\geq$  stands for \_\_\_\_\_ than or equal to.

ANS: greater

PTS: 1                    REF: 113

18. When the # symbol acts as a placeholder for a digit, it is considered to be a(n) \_\_\_\_\_ code.

ANS: number formatting

PTS: 1                    REF: 128

19. Up to four different format codes can be applied to a cell: one for positive numbers, one for negative numbers, one for zero values, and one for \_\_\_\_\_.

ANS: text

PTS: 1                    REF: 127

20. Performing a(n) \_\_\_\_\_ analysis means, simply, to determine the outcome of changing one or more input values and to evaluate the recalculated results.

ANS:  
what-if  
what if

PTS: 1                    REF: 131

## **MATCHING**

Wildcard	Formula	
*	=COUNTIF(H2:H13,"*3")	1.
*	=COUNTIF(H2:H13,"*1*")	2.
?	=COUNTIF(H3:H13,"?313")	3.
?	=COUNTIF(H3:H13,"*3??")	4.

Using the above figure, identify the letter of the choice that best matches the figure.

- Counts all Inspector IDs that contain the text value "1" anywhere in the value (A313, C321, B313, and so on)
- Counts all Inspector IDs that end with the text value "3"
- Counts all Inspector IDs that have the value "3" in the third-to-last position in the text value, regardless of the number of preceding characters
- Counts all Inspector IDs with a single character followed by the characters "313"; notice that cell H7 is not counted because it contains two characters preceding the characters "313"

- #1
- #2
- #3
- #4

- |           |        |          |
|-----------|--------|----------|
| 1. ANS: B | PTS: 1 | REF: 114 |
| 2. ANS: A | PTS: 1 | REF: 114 |
| 3. ANS: D | PTS: 1 | REF: 114 |
| 4. ANS: C | PTS: 1 | REF: 114 |

Identify the letter of the choice that best matches the function.

- =ROUND(25.449,0)
- =ROUND(SUM(10.33,10.44),0)
- =ROUND(25.33%,2)
- =INT(-4.3)
- =ROUND(103234,-2)
- =ROUND(23.75%,2)
- =ROUNDDOWN(9.99,0)
- =EVEN(2.23)

- 24%
- 21
- 25%
- 5
- 25
- 9
- 4

12. 103,200

5.	ANS: F	PTS: 1	REF: 86   87
6.	ANS: B	PTS: 1	REF: 86   87
7.	ANS: C	PTS: 1	REF: 86   87
8.	ANS: D	PTS: 1	REF: 86   87
9.	ANS: A	PTS: 1	REF: 86   87
10.	ANS: G	PTS: 1	REF: 86   87
11.	ANS: H	PTS: 1	REF: 86   87
12.	ANS: E	PTS: 1	REF: 86   87

**ESSAY**

- List and explain briefly mean, median, mode, and standard deviation.

ANS:

- Mean is the arithmetic average of a set of numbers.
- Median is the arithmetic value that occurs in the middle of a data set when organized from lowest to highest, where half the values are less than and half the values are greater than the median value.
- Mode is the arithmetic value that occurs most frequently in a data set.
- Standard deviation is a measure of how widely the data values are dispersed from the arithmetic mean.

PTS: 1                      REF: 80                      TOP: Critical Thinking

- Describe what the arguments are for this function: =SUMIF(range,criteria,sum\_range).

ANS:

- The *range* argument identifies the cell range where the criteria are located.
- The *criteria* argument specifies which values should be selected.
- The *sum\_range* argument identifies the corresponding cell range to sum if the specified criteria have been met in the range established by the range argument. If the *sum\_range* argument is omitted, the function adds the values in the range indicated by the first argument.

PTS: 1                      REF: 118                      TOP: Critical Thinking

- Explain what the following four number formatting codes do when used in Excel: #, 0, ?, and %. Write one sentence about each symbol and give an example of how it can be used.

ANS:

The # symbol acts as a digit placeholder that displays significant digits (for example, #####.#).

The 0 symbol acts as a digit placeholder that displays both significant and insignificant zeros (for example, 0.00).

The ? symbol acts as a digit placeholder that does not display insignificant digits, but does hold a place so that decimal points will align (for example, 0.00?).

The % symbol inserts a percentage sign and automatically multiplies the value inserted by 100 for display (for example, #%).

PTS: 1                      REF: 128                      TOP: Critical Thinking