

Excel Chapter 2 — Formulas, Functions, and Formatting

MULTIPLE CHOICE

1. A ____ is a prewritten formula that is built into Excel.
- a. function
 - b. feature
 - c. task
 - d. calculation

ANS: A PTS: 1 REF: EX 66

2. To start a new line in a cell, press the ____ keys.
- a. CTRL+ENTER
 - b. TAB+ENTER
 - c. ALT+ENTER
 - d. SHIFT+ENTER

ANS: C PTS: 1 REF: EX 70

3. When you enter a two-digit year that is less than 30, Excel changes the year to ____.
- a. 20xx
 - b. 30xx
 - c. 18xx
 - d. 19xx

ANS: A PTS: 1 REF: EX 71

4. A(n) ____ circular reference occurs when a formula in a cell refers to another cell or cells that include a formula that refers back to the original cell.
- a. contiguous
 - b. indexed
 - c. direct
 - d. indirect

ANS: D PTS: 1 REF: EX 73

5. All of the following are valid Excel arithmetic operators EXCEPT ____.
- a. ^
 - b. *
 - c. %
 - d. >

ANS: D PTS: 1 REF: EX 75

6. Which of the following calculations multiplies 23 by 0.01?
- a. =23%
 - b. =23
 - c. =23+.01
 - d. =24-.01

ANS: A PTS: 1 REF: EX 75

7. When more than one arithmetic operator is involved in a formula, Excel follows the same basic order of ____ that you use in algebra.
- a. placement
 - b. operations
 - c. positioning
 - d. selections

ANS: B PTS: 1 REF: EX 75

8. When Excel follows the order of operations, the formula, $8 * 3 + 2$, equals ____.
- a. 40
 - b. 26
 - c. 48
 - d. 13

ANS: B PTS: 1 REF: EX 75

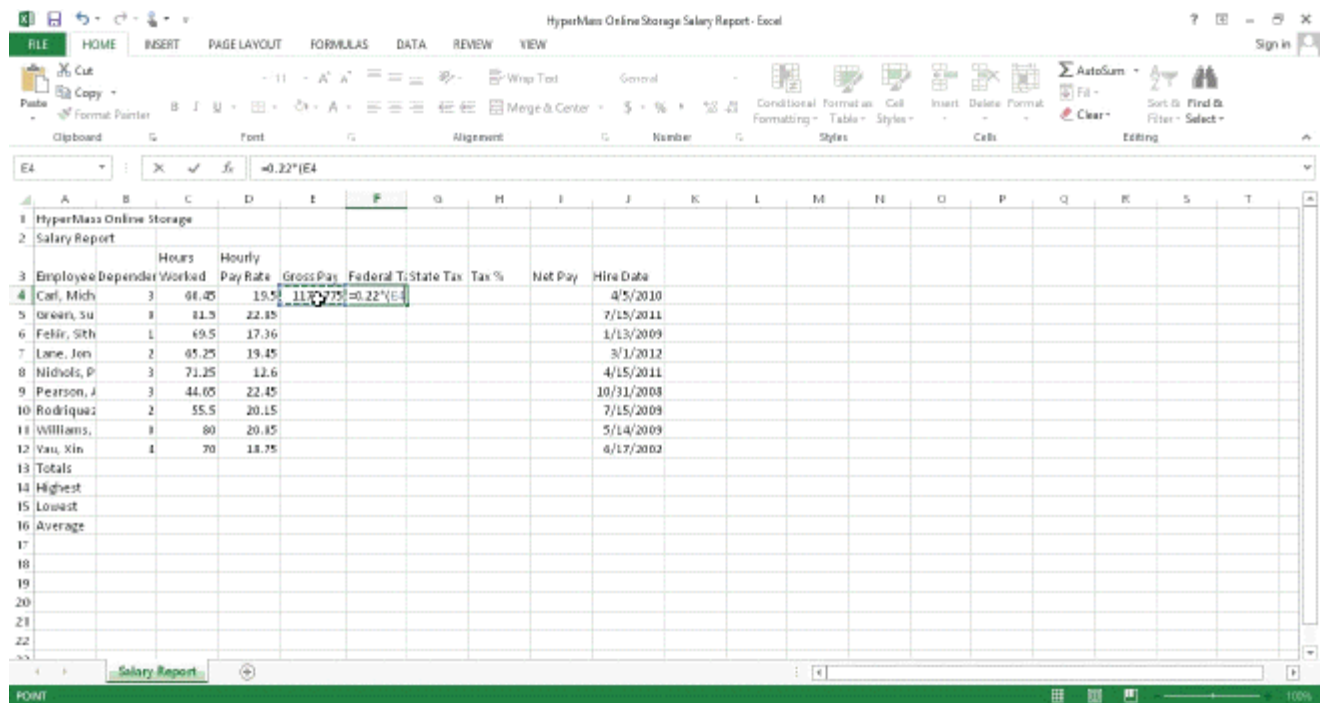
9. Which of the following happens when you enter the formula =G15 into a cell?

- Excel recalculates all formulas in the worksheet
- Excel assigns the sum of the values in the previous 15 cells to the active cell
- Excel assigns the value in cell G15 to the active cell
- Nothing; =G15 is an invalid formula

ANS: C

PTS: 1

REF: EX 75



- Point mode allows you to ____, as shown in the accompanying figure.
 - select cells for use in a formula using the keyboard
 - select a function from the Sum button list
 - select cells for use in a formula using the mouse pointer
 - edit cell contents directly in the cell

ANS: C

PTS: 1

REF: EX 76

- The adjusted cell references in a copied and pasted formula are called ____ cell references.
 - related
 - relative
 - pasted
 - alternative

ANS: B

PTS: 1

REF: EX 78

- You can click the ____ button to undo an automatic correction.
 - Auto Fill Options
 - AutoCorrect Options
 - Paste Options
 - Trace Error

ANS: B

PTS: 1

REF: EX 79

- Which of the following Option buttons gives options for filling cells following a fill operation?
 - Auto Fill Options
 - AutoCorrect Options
 - Insert Options
 - Paste Options

ANS: A

PTS: 1

REF: EX 79

- The ____ button lists error-checking options following the assignment of an invalid formula to a cell.

23. Which of the following is the path to the Sum arrow?
- a. (EDITING tab | Home group) c. (HOME tab | Clipboard group)
- b. (HOME tab | Editing group) d. (CALCULATION tab | Editing group)

ANS: B

PTS: 1

REF: EX 87

24. Which of the following is the path to the Copy and Paste buttons?
- | | |
|-----------------------------|---------------------------------|
| a. (HOME tab Copy group) | c. (HOME tab Clipboard group) |
| b. (HOME tab Paste group) | d. (HOME tab Formulas group) |

ANS: C

PTS: 1

REF: EX 88

25. To copy cell contents, you can select the cell and then press the ____ keys.
- | | |
|-----------|-----------|
| a. CTRL+V | c. CTRL+B |
| b. CTRL+X | d. CTRL+C |

ANS: D

PTS: 1

REF: EX 88

26. To paste copied cell contents, you can press the ____ keys.
- | | |
|-----------|-----------|
| a. CTRL+C | c. CTRL+V |
| b. CTRL+P | d. CTRL+X |

ANS: C

PTS: 1

REF: EX 88

27. You can use the _____ to check which cells are referenced in the formula assigned to the active cell.
- Formula Finder
 - Range Finder
 - Calculation Finder
 - Function Finder

ANS: B

PTS: 1

REF: EX 89

28. A company or department may standardize with a specific ____ so that all of their documents have a similar appearance.
- a. scheme c. theme
b. gallery d. style

ANS: C

PTS: 1

REF: EX 91

29. You can open the Format Cells dialog box by pressing the ____ keys.
- | | |
|--------------|-------------|
| a. SHIFT+TAB | c. ALT+1 |
| b. CTRL+1 | d. SHIFT+F1 |

ANS: B

PTS: 1

REF: EX 96

30. The ____ button assigns a fixed dollar sign to the numbers in a selected range, with the dollar sign to the far left with spaces between it and the first digit in the cell.
- | | |
|-----------------------------|--------------------------|
| a. Comma style format | c. Percent style format |
| b. Accounting number format | d. Currency style format |

ANS: B

PTS: 1

REF: EX 97

31. Which of the following is the path to the Comma Style button?
- | | |
|---------------------------------|------------------------------|
| a. (HOME tab Alignment group) | c. (HOME tab Cells group) |
| b. (HOME tab Font group) | d. (HOME tab Number group) |

ANS: D

PTS: 1

REF: EX 98

32. Which of the following is the path to the Conditional Formatting button?
- a. (HOME tab | Editing group) c. (FORMATTING tab | Styles group)
- b. (STYLES tab | Formatting group) d. (HOME tab | Styles group)

ANS: D

PTS: 1

REF: EX 100

33. If you do not assign a format to a cell or cells in a column, the column width will remain ____ characters.
- a. 8.43 c. 11.65
b. 7.52 d. 9.43

ANS: A

PTS: 1

REF: EX 103

34. When you decrease the row height to ____, the row is hidden.
- | | |
|------|------|
| a. 0 | c. 2 |
| b. 1 | d. 3 |

ANS: A

PTS: 1

REF: EX 104

35. Which of the following is the path to the Spelling button?
- a. (HOME tab | Proofing group) c. (REVIEW tab | Proofing group)
- b. (PROOFING tab | Spelling group) d. (REVIEW tab | Checking group)

ANS: C

PTS: 1

REF: EX 108

36. A ____ is text and graphics that print at the top of each page.
- | | |
|-----------|-----------|
| a. header | c. margin |
| b. topper | d. crown |

ANS: A

PTS: 1

REF: EX 110

37. A ____ is text and graphics that print at the bottom of every page.
- | | |
|-----------|------------|
| a. footer | c. margin |
| b. toe | d. stopper |

ANS: A

PTS: 1

REF: EX 110

38. The default view in Excel is called ____ view.
- | | |
|-------------|-----------|
| a. Normal | c. Basic |
| b. Standard | d. Values |

ANS: A

PTS: 1

REF: EX 110

39. ____ view allows you to create or modify a worksheet while viewing how it will look in printed format.
- | | |
|----------------|-----------------------|
| a. Normal | c. Page Break Preview |
| b. Page Layout | d. Full Screen |

ANS: B

PTS: 1

REF: EX 110

40. To print a range of cells in the active worksheet, click ____ in the Settings area in the Print gallery.
- | | |
|------------------------|--------------------------|
| a. Print Active Sheets | c. Print Entire Workbook |
| b. Print Selection | d. none of the above |

ANS: B

PTS: 1

REF: EX 114

MULTIPLE RESPONSE

Modified Multiple Choice

1. When designing a worksheet, which steps should be taken to ensure that functional considerations supersede visual aesthetics?
 - a. Understanding the requirements document
 - b. Identification of how to format various elements of the worksheet
 - c. Avoiding the temptation to use flashy or confusing visual elements within the worksheet
 - d. Choosing the proper functions and formulas

ANS: A, C, D PTS: 1 REF: EX 69

2. Which of the following are valid formulas?
 - a. =3 ^ 4
 - b. =H3/H11
 - c. =11+9
 - d. =22-F15

ANS: A, B, C, D PTS: 1 REF: EX 75

3. Which of the following actions are provided by the Paste Options button?
 - a. Pastes an exact copy of what you copied including contents and formatting
 - b. Pastes synonyms or acronyms
 - c. Copy just formulas
 - d. Copy just formatting

ANS: A, C, D PTS: 1 REF: EX 80

4. Which of the following is a method of entering functions?
 - a. keyboard, touch gesture, or pointer
 - b. the Sum menu
 - c. the Insert Function box in the formula bar
 - d. the Name box area in the formula bar

ANS: A, B, C, D PTS: 1 REF: EX 81

5. Using the Excel spell checker, you can _____.
 - a. check the spelling in a single cell
 - b. check the spelling of words in a selected range
 - c. add words to the dictionary
 - d. add words to the AutoCorrect list

ANS: A, B, C, D PTS: 1 REF: EX 109

TRUE/FALSE

1. The equal sign (=) precedes a formula.

ANS: T PTS: 1 REF: EX 74

2. The most common error when entering a formula is to reference the wrong cell in the formula.

ANS: T PTS: 1 REF: EX 74

3. An asterisk (*) following a cell reference in a formula is the arithmetic operator that directs Excel to perform the division operation.

ANS: F PTS: 1 REF: EX 75

4. The arithmetic operator, ^, directs Excel to perform the division operation.

ANS: F PTS: 1 REF: EX 75

5. As in algebra, you can use brackets to override the order of operations Excel follows to perform formula calculations.

ANS: F PTS: 1 REF: EX 75

6. Moving from left to right, the first calculation in the order of operations is negation (-).

ANS: T PTS: 1 REF: EX 75

7. Point mode allows you to select cells for use in a formula by using your finger or the pointer.

ANS: T PTS: 1 REF: EX 76

8. Using Point mode to enter formulas often is faster and more accurate than using the keyboard to type the entire formula.

ANS: T PTS: 1 REF: EX 77

9. The Insert Options button lists formatting options.

ANS: T PTS: 1 REF: EX 79

10. Excel has more than 400 functions that perform just about every type of calculation you can imagine.

ANS: T PTS: 1 REF: EX 82

11. Clicking the Create Function box opens the Function Arguments dialog box.

ANS: F PTS: 1 REF: EX 83

12. The Sum button menu allows you to enter one of five often-used functions easily into a cell.

ANS: T PTS: 1 REF: EX 84

13. Excel attempts to guess which cells you want to include in the function by looking for ranges that are adjacent to the selected cell and that contain numeric data.

ANS: T PTS: 1 REF: EX 84

14. The range automatically selected by Excel is always correct.

ANS: F PTS: 1 REF: EX 84

15. You can use the arrow keys to complete an entry in Point mode.

ANS: F PTS: 1 REF: EX 87

16. The AVERAGE function requires that the argument be included within parentheses following the function name.

ANS: T PTS: 1 REF: EX 87

17. To use Range Finder to verify that a formula contains the intended cell references, click or tap the cell with the formula you want to check.

ANS: F PTS: 1 REF: EX 89

18. When you click the Decrease Font Size button, Excel assigns the next highest font size in the Font Size gallery.

ANS: F PTS: 1 REF: EX 92

19. The default font for the Basis theme is different than the default font for the Office theme.

ANS: T PTS: 1 REF: EX 92

20. You can click the Format Cells Dialog Box Launcher to open the Format Cells dialog box.

ANS: T PTS: 1 REF: EX 96

21. You cannot format an entire column at once.

ANS: F PTS: 1 REF: EX 96

22. To select a number format, you can choose a category in the Number tab in the Format Cells dialog box and then select the number of decimal places, whether or not a dollar sign should be displayed, and how negative numbers should appear.

ANS: T PTS: 1 REF: EX 98

23. With the accounting number style, a floating dollar sign appears immediately to the left of the first digit in a dollar value with no spaces.

ANS: F PTS: 1 REF: EX 99

24. The Percent Style button instructs Excel to display a value as a percentage, determined by multiplying the cell entry by 100, rounding the result to the nearest percent, and adding a percent sign.

ANS: T PTS: 1 REF: EX 99

25. Best fit means that the width of the column will be increased or decreased by a percentage you specify.

ANS: F PTS: 1 REF: EX 103

COMPLETION

1. The function, or _____, of a worksheet is to provide a user with direct ways to accomplish tasks.

ANS: purpose

PTS: 1 REF: EX 69

2. When Excel recognizes that you entered a date in mm/dd/yy format, it automatically formats the date as _____.

ANS: mm/dd/yyyy

PTS: 1 REF: EX 71

3. One of the reasons Excel is such a valuable tool is that you can assign a(n) _____ to a cell, and Excel will calculate the result.

ANS: formula

PTS: 1 REF: EX 73

4. A formula in a cell that contains a reference back to itself is called a(n) _____.

ANS: circular reference

PTS: 1 REF: EX 73

5. The / arithmetic operator indicates _____.

ANS: division

PTS: 1 REF: EX 75

6. In the order of operations, the last operation Excel performs is _____.

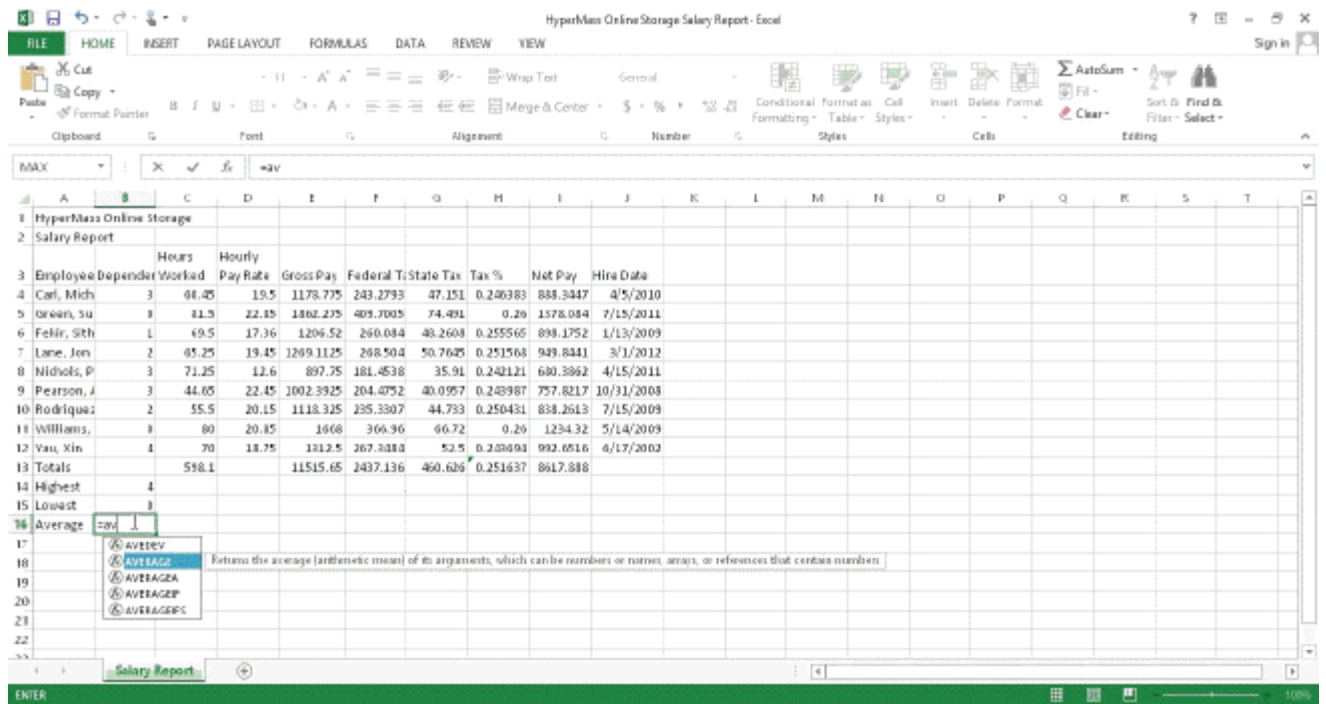
ANS:
subtraction
addition

PTS: 1 REF: EX 75

7. The _____ is a small black square in the lower-right corner of the active cell or active range.

ANS: fill handle

PTS: 1 REF: EX 78



8. Typing =av in a cell displays the _____, as shown in the accompanying figure.

ANS: Formula AutoComplete list

PTS: 1 REF: EX 86

9. To use _____ to verify that a formula contains the intended cell references, double-tap or double-click the cell with the formula you want to check.

ANS: Range Finder

PTS: 1 REF: EX 89

10. You can press the _____ key to quit Range Finder.

ANS: ESC

PTS: 1 REF: EX 89

11. _____ colors jump out of a dark background and are easiest to see.

ANS: Bright

PTS: 1 REF: EX 93

12. Of warmer and cooler colors, the kind of colors that tend to reach toward the reader are _____ colors.

ANS: warmer

PTS: 1 REF: EX 93

13. A(n) _____ is a dot on the screen that contains a color.

ANS: pixel

PTS: 1 REF: EX 103

14. _____ means that the width of a column will be increased or decreased so the widest entry will fit in the column.

ANS: Best fit

PTS: 1 REF: EX 103

15. _____ is a technique that can be used to conceal data that might not be relevant to a particular report or sensitive data that others should not see.

ANS:
Hiding cells
Hiding

PTS: 1 REF: EX 104

16. To set row height to best fit, _____ the bottom boundary of the row heading.

ANS:
double-tap
double-click

PTS: 1 REF: EX 107

17. Excel includes a(n) _____ you can use to check a worksheet for spelling errors.

ANS: spell checker

PTS: 1 REF: EX 107

18. You can click the Page Layout button on the status bar to switch to _____ view.

ANS: Page Layout

PTS: 1 REF: EX 110

19. _____ are those portions of a printed page outside the main body of the printed document and always are blank when printed.

ANS: Margins

PTS: 1 REF: EX 110

20. _____ view shows the worksheet divided into pages.

ANS: Page Layout

PTS: 1 REF: EX 110

MODIFIED TRUE/FALSE

1. In designing a worksheet, visual aesthetics should come first. _____

ANS: F
functional considerations
functionality

PTS: 1 REF: EX 69

2. Cooler colors tend to pull away from the reader. _____

ANS: T PTS: 1 REF: EX 93

3. While holding down the ALT key, you can select nonadjacent ranges and cells.

ANS: F, CTRL

PTS: 1 REF: EX 97

4. The Accounting number format assigns a floating dollar sign. _____

ANS: F, fixed

PTS: 1 REF: EX 97

5. You can choose from 12 categories of formats in the Format Cells dialog box.

ANS: T PTS: 1 REF: EX 98

MATCHING

Identify the letter of the choice that best matches the phrase or definition.

- | | |
|------------------------|-------------------------|
| a. ALT+ENTER | f. CTRL+l |
| b. order of operations | g. function |
| c. circular reference | h. F7 |
| d. MAX | i. CTRL+ACCENT MARK (´) |
| e. CTRL+C | j. CTRL+V |

1. A function that displays the highest value in a range.
2. Copies a formula.
3. A prewritten formula built into Excel.
4. Wraps text in a cell.
5. Spell-checking a worksheet.
6. A formula in a cell that contains a reference back to itself.
7. Pastes a formula.
8. Opens the Format Cells dialog box.
9. Negation comes first in this.
10. Displays the worksheet with formulas.

1. ANS: D	PTS: 1	REF: EX 82
2. ANS: E	PTS: 1	REF: EX 88
3. ANS: G	PTS: 1	REF: EX 66
4. ANS: A	PTS: 1	REF: EX 70
5. ANS: H	PTS: 1	REF: EX 109
6. ANS: C	PTS: 1	REF: EX 73
7. ANS: J	PTS: 1	REF: EX 88
8. ANS: F	PTS: 1	REF: EX 99
9. ANS: B	PTS: 1	REF: EX 75
10. ANS: I	PTS: 1	REF: EX 116

ESSAY

1. Explain what circular references, direct circular references, and indirect circular references are.

ANS:

A formula in a cell that creates a reference back to itself is called a circular reference. Excel often warns you when you create a circular reference. In almost all cases, circular references are the result of an incorrect formula. A circular reference can be direct or indirect. For example, placing the formula =A1 in cell A1 results in a direct circular reference. An indirect circular reference occurs when a formula in a cell refers to another cell or cells that include a formula that refers back to the original cell.

PTS: 1

REF: EX 73

TOP: Critical Thinking

2. Briefly discuss the order of operations.

ANS:

When more than one arithmetic operator is involved in a formula, Excel follows the same basic order of operations that you use in algebra. Moving from left to right in a formula, the order of operations is as follows: first negation (–), then all percentages (%), then all exponentiations (^), then all multiplications () and divisions (/), and finally, all additions (+) and subtractions (–).*

*As in algebra, you can use parentheses to override the order of operations. For example, if Excel follows the order of operations, $8 * 3 + 2$ equals 26. If you use parentheses, however, to change the formula to $8 * (3 + 2)$, the result is 40, because the parentheses instruct Excel to add 3 and 2 before multiplying by 8.*

PTS: 1

REF: EX 75

TOP: Critical Thinking

3. Briefly discuss displaying the formulas version of a worksheet.

ANS:

The values version of the worksheet shows the results of the formulas you have entered, rather than the actual formulas. Excel also can display and print the formulas version of the worksheet, which shows the actual formulas you have entered, rather than the resulting values.

The formulas version is useful for debugging a worksheet. Debugging is the process of finding and correcting errors in the worksheet. Viewing and printing the formulas version instead of the values version makes it easier to see any mistakes in the formulas.

When you change from the values version to the formulas version, Excel increases the width of the columns so that the formulas and text do not overflow into adjacent cells on the right. The formulas version of the worksheet, thus, usually is significantly wider than the values version.

PTS: 1

REF: EX 115

TOP: Critical Thinking

CASE

Critical Thinking Questions

Case 2-1

Leo, owner of Leo's Bread Company, recently installed Excel 2013 and created a new workbook to track sales of different types of bread. He wants to determine which types of bread are the most popular among his customers. He is particularly interested in sales of rye bread, onion rolls, and bagels. Leo has formatted the sales numbers with the Accounting number format.

1. After Leo enters the sales numbers into the cells, he decides he does not want the fixed dollar sign to appear on the far left of the cell, separated by spaces from the actual value. He would prefer that the dollar sign appear immediately to the left of the first digit of the value. To specify a floating dollar sign, which of the following formats should Leo apply?
 - a. Comma style
 - b. Percent style
 - c. Currency style
 - d. General number

ANS:

C

PTS: 1

REF: EX 98

TOP: Critical Thinking

2. Leo wants the sales numbers for rye bread, onion rolls, and bagels to look different each time the sales for each exceeds \$500. What Excel feature can Leo use to accomplish this?
 - a. Spell checker
 - b. Conditional formatting
 - c. Point mode
 - d. Formulas version

ANS:

B

PTS: 1

REF: EX 100

TOP: Critical Thinking

Critical Thinking Questions

Case 2-2

Anna is a competitive runner. She wants to improve her performance and decides to keep track of data for six months to determine if the time of day or year she runs affects her performance. Her worksheet contains the following data: start and end time, total time, and distance.

3. After three months, Anna wants to know the average distance she runs. What should she do to calculate the average distance?
 - a. Enter the text =av in a cell at the end of the distance data; then select the AVERAGE function from the Formula
 - c. Enter the text =function in a cell at the end of the distance data; then select the AVERAGE function from the

- | | |
|--|---|
| b. Enter the text =ms in a cell at the end of the distance data; then select the MAX function from the Formula AutoComplete list and then enter the function's argument. | d. Enter the text =su at the end of the data in the Distance column; then select the SUM function from the Select Function list and then enter the function's argument. |
|--|---|

ANS:

A

PTS: 1

REF: EX 86

TOP: Critical Thinking

4. Now Anna wants to know the longest total time she has run. By looking at the total time values, she finds the longest total time to be 54 minutes. Instead of manually entering that value in a cell below the total time data, Anna decides to use the MAX function to determine the longest total time. Why did Anna prefer to use the MAX function?
- | | |
|---|--|
| a. She believes that 54 minutes is her best running time. | c. She believes that 54 minutes is not her best running time. |
| b. The MAX function recalculates the highest value each time a new value is entered into the worksheet. | d. The MAX function provides a constant value that will not change for this cell when a new value is entered into the worksheet. |

ANS:

B

PTS: 1

REF: EX 83

TOP: Critical Thinking