Concepts Review

True/False Questions

Each of the following statements is either true or false. Indicate your choice by circling T or F.

T F 1. You can repeat the most recent command by pressing Ctrl+R.

T F 2. You must key quotation marks around text that you key as the only entry in a Function Arguments dialog box.

T F 3. The AND and OR functions usually show the same results.

T F 4. Custom date and time formats use "d" and "t" for most user-defined settings.

T F 5. In the formula bar, arguments in a function are separated by commas.

T F 6. Cell styles that you create are listed in the related group in the gallery.

T F 7. The Compatibility Checker runs automatically when you save a workbook in an earlier Excel version.

T F 8. The Print Titles command can repeat data from selected rows or columns on each page of a worksheet.

Short Answer Questions

Write the correct answer in the space provided.

1. Name four format codes used to create a custom date or time format.

_____

2. Describe what this function would do in cell D4:
=IF(C4=100,"No",C4+1)

_____

3. Which logical function shows the opposite of the condition?

_____

4. What are possible results for an AND function?

_____

5. Which Ribbon command tab includes choices for page breaks and print titles?

_____

6. In Page Break preview, how can you distinguish between an automatic page break and one that you placed?

7. What can you do to share workbooks if another office uses Excel 2003 but you use Excel 2010?

8. If you want a cell to appear to be empty or blank as the result for an IF function, what should you enter for the argument?

Critical Thinking

Answer these questions on a separate page. There are no right or wrong answers. Support your answers with examples from your own experience, if possible.

1. TODAY() is volatile, but if you key the date, it is not. What are some reasons for not using a volatile function?
2. How could you calculate how many days remain until your next birthday?

Skills Review

Exercise 6-28

Use Date and Time functions. Key and format dates and times.

Opening and closing times are monitored at each office to determine if more or fewer hours are required. It is also a way to note any oddities in a particular week's schedule. After you prepare this initial worksheet, it can be used as a model for succeeding weeks.

1. Create a new workbook and save it as ***[your initials]*6-28**.
2. Click the Select All button. Set the font to Calibri 12-point bold.
3. In cell A1, key **AllAround Vision Care**. In cell A2, key **Record of Times for Chicago**. Choose a larger font size for these labels.
4. Key **Date** in cell A3, **Open Time** in cell B3, and **Close Time** in cell C3. Center-align these labels. Make all three columns **12.14 (90 pixels)** wide.
5. Use Date and Time functions by following these steps:
   a. In cell A4, key **=today(** and press Enter.
   b. Click cell A5, and key **=** to start the formula. Click cell A4, and key **+1** to add 1 day. Press Enter.
   c. Copy the formula in cell A5 to cells A6:A10.

6. Format dates by following these steps:
   a. Select cells A4:A10. Right-click anywhere in the range, and choose **Format Cells**.
   b. Click the **Number** tab, and choose **Custom** in the **Category** list.
   c. Choose the preset code **d-mmm**, and edit it in the **Type** box to show **mmmm d**. Click **OK**.

NOTE

This date format does not show the year.

7. Select cells B4:C10 and key the times as shown in the figure. With the range selected, press Enter to enter the data one column at a time.

Figure 6-19

	Open Time	Close Time
4	9 am	9 pm
5	10 am	8 pm
6	10 am	9 pm
7	11 am	7 pm
8	11 am	9 pm
9	11 am	8 pm
10	9 am	6 pm

8. Format times by following these steps:
   a. Select cells B4:C10 and open the Format Cells dialog box.
   b. On the **Number** tab, choose **Custom** in the **Category** list.
   c. Choose **h:mm AM/PM** in the **Type** list.
   d. Edit the code in the **Type** box to show **h AM/PM**. Click **OK**.
9. Center the labels in rows 1:2 across the data. Make rows 1:10 **26.25 (35 pixels)** tall.
10. Insert a row at row 1. Insert a column at column A. Select cells A1:E12 and set a double outline border.
11. Select cells A1:E3 and change the font color to white. Then apply black fill.

NOTE

Times are shown as a fraction of a 24-hour day in formula view.

REVIEW

Group the sheets and add a header and footer from the Page Setup dialog box if that is your usual procedure before submitting your work.

12. Insert a row at row 4 and make it the same height as row 1. Select cells B5:D12, and set dotted middle and bottom horizontal borders and solid middle vertical borders.
13. Center the page horizontally.
14. Make a copy of the worksheet and change the tab name to **Formulas**. Display formulas and adjust column widths; columns A and E can be very narrow. The labels in rows 2:3 need not be visible. Fit this sheet to a portrait page.
15. Prepare and submit your work.

Exercise 6-29

Use date and time arithmetic.

To complete the worksheet that monitors opening and closing times, you will calculate the number of hours opened. After the first week is completed, you can use a 3-D reference to enter the dates for the second week on a separate worksheet in the same workbook.

1. Open **Excel_SR6-29**. Save the workbook as ***[your initials]*6-29**.

REVIEW

A series of #### symbols in a cell means the column is not wide enough.

2. Use time arithmetic by following these steps:
   a. Click cell E6. Key **=** and click cell D6.
   b. Key **–** to subtract and click cell C6. Press Ctrl+Enter.
   c. On the **Home** command tab, click the arrow for the **Number** list and choose **Number**. This is the time as part of a 24-hour day.
   d. While cell E6 is selected, press F2 and press Home. Press → and key **(**, a left parenthesis after the equal sign (=).
   e. Press End and key **)**, a right parenthesis. This will force the subtraction to be calculated first.
   f. Key ***24** to convert to hours, and press Ctrl+Enter.
   g. Copy the formula to row 12.
3. Use date and time arithmetic by following these steps:
   a. Click the **OpenTimes2** worksheet tab and click cell B6.
   b. Key **=** and click the **OpenTimes1** worksheet tab.
   c. Click cell B6 and key **+7**. Press Enter. The focus returns to the **OpenTimes2** worksheet.
   d. Click cell E6. Follow the same steps on this worksheet to calculate the duration and show it in hours.
4. Prepare and submit your work.

Exercise 6-30

Use the IF function. Create and edit cell styles.

Young patients at AllAround Vision Care receive a birthday gift, a notebook binder. The binders are ordered in blue and pink, and the appropriate color is sent to each boy or girl on his or her birthday. In the worksheet, you are to indicate "pink" or "blue" for each patient and create styles to show the actual color.

1. Open **Excel_SR6-30** and save it as ***[your initials]*6-30**.
2. Use the IF function by following these steps:
   a. Click cell D4 and click the **Formulas** command tab.
   b. Click the Logical button and choose **IF**.
   c. Click cell C4 and key **="f"**.
   d. Click in the **Value_if_true** box. Key **Pink**. If the patient is female, she gets the pink promotion. Otherwise, the patient gets the blue one.
   e. Click in the **Value_if_false** box. Key **Blue** and click **OK**.
   f. Center the results. Copy the formula to cells D5:D20. Fix the bottom border.

REVIEW

You can press Tab to move to the next argument box.

3. Create and edit styles by following these steps:
   a. Click the Cell Styles button and choose **New Cell Style**.
   b. Key **Pink** in the **Style name** box and click **Format**.
   c. Click the **Fill** tab. Click **More Colors**. In the color tile hexagon, click on a light pink color swatch of your choice.
   d. Click **OK** in the **Colors** dialog box. Click **OK** in the **Format Cells** dialog box. Click **OK** in the **Style** dialog box.
   e. Click cell D4. Click the Cell Styles button. Right-click **Pink** and choose **Modify**.
   f. In the **Style** dialog box, remove the checkmarks for all the attributes except **Fill**. Click **OK**.
   g. Click the Cell Styles button and choose **Pink**.
   h. Click cell D6. Hold down Ctrl and click each cell that shows "Pink."
   i. Click the Cell Styles button and choose **Pink** to format the cells with the style.
   j. Create another style named "Blue" for the cells that show "Blue." Then apply the cell style to the appropriate cells in column D.

TIP

Set the alignment before copying the formula. The copied format does not include a bottom border.

4. Apply middle horizontal dotted borders to cells A4:D19.
5. Make a copy of the worksheet and name it **KidsBirthdaysFormulas**. Display the formulas, fit the columns, and fit the sheet to one landscape page.
6. Prepare and submit your work.

NOTE

When formulas are displayed, column A needs to be wide enough to show the main label.

Exercise 6-31

Use AND, OR, and NOT functions. Prepare worksheets for output.

For various reasons, AllAround Vision Care wants to know as much as possible about its young patients. This includes which age groups they fall into as well as their gender. You are to use functions to determine whether or not each patient fits a particular grouping. A separate diagnoses sheet for adult patients is ready for printing but needs print titles, a footer, and some final formatting.

TIP

Use AutoComplete for the city and gender columns.

1. Open **Excel_SR6-31** and save it as ***[your initials]*6-31**.
2. On the **YoungPatients** worksheet, key the following data, starting in cell A8.

Figure 6-20

Name	Office	Age	Male/Female
your first and last name	Chicago	your age	your gender
Carole Greenfield	Dallas	10	Female
Michael Westberg	Chicago	5	Male
Hashima Yeng	Boston	6	Male
Krystal Chavez	Seattle	8	Female
Pedro Juarez	Boston	7	Male
David Hutchinson	Dallas	5	Male
Melinda Brown	Seattle	4	Female

3. Use an AND function by following these steps:
   a. Click cell E8 and click the **Formulas** command tab.
   b. Click the Logical button and choose **AND**.
   c. Click cell C8, and key **>=6** in the **Logical1** box.
   d. Click in the **Logical2** box. Click cell C8 and key **<=8**. Click **OK**.
   e. Copy the formula in cell E8 to cells E9:E15.
4. Key an OR function by following these steps:
   a. Click cell F8, and key **=or(** to start the formula.
   b. Click cell C8 and key **<=5**.
   c. Key a comma to separate the arguments.
   d. Click cell D8, key **="female"** and press Enter.
   e. Copy the formula in cell F8 to cells F9:F15.

5. Use a NOT function by following these steps:
   a. In cell G8, key **=not** and press Tab.
   b. Click cell D8, key **="female"**, and press Enter.
   c. Copy the formula.
6. Make a copy of the sheet, and name it **YoungPatientsFormulas**. Display the formulas and fit this sheet to one landscape page.
7. Prepare a worksheet for output by following these steps:
   a. Click the **Diagnoses** worksheet tab.
   b. Select cells G4:G19. Click the Dialog Box Launcher in the **Number** group on the **Home** command tab. Click the **Number** tab, and choose **Special** in the **Category** list.
   c. In the **Type** list, choose **Phone Number** and click **OK**.
   d. Press Ctrl+Home. Click the **Page Layout** command tab. Click the Print Titles button in the **Page Setup** group.
   e. Click in the **Rows to repeat at top** box. Click anywhere in row 1 and drag to row 2.
   f. Click in the **Columns to repeat at left** box and choose columns A:B. Click **OK**.
   g. Click the Page Orientation button and choose **Landscape**.
   h. Click the Page Layout view button in the status bar. Set the zoom size so that you can see page 1 and the left half of page 2.
   i. Widen column A just enough to fully display the labels in rows 1:2 on page 2.
   j. Click in the center footer section. Click the Insert Page Number button in the **Header & Footer Elements** group.
   k. Press Spacebar, key **of**, and press Spacebar. Click the Number of Pages button in the **Header & Footer Elements** group.
   l. Click a worksheet cell and return to Normal view.
8. Prepare and submit your work.

Lesson Applications

Exercise 6-32

Use AND and OR functions. Use Date and Time functions. Format dates.

In its efforts to attract new adult and child patients, AllAround Vision Care has established an incentive program. Employees who refer two or more patients in each category are eligible for an extra vacation day. If they refer three or more patients in either group, they are also eligible for the current incentive (a $50 gift card). The worksheet calculates eligibility.

1. Open **Excel_LA6-32** and save it as ***[your initials]*6-32**.
2. In cell E4, use an AND function to show true if the employee recruited two or more adult patients and two or more child patients.
3. In cell F4, use an OR function to show true if the employee recruited three or more of either patient category.
4. Apply a highlight cells rules format to display the cells that show true in bold with a light gray fill.
5. Add an icon set using **3 Symbols (Circled)** for the values in columns C:D. Edit the rule to show a green checkmark for any value greater than 1. Show an exclamation point for any other value.
6. Insert the TODAY() function in cell A18. Format the date to show three characters for the month and four digits for the year.
7. Make a formula sheet and fit it to one landscape page.
8. Prepare and submit your work.

Exercise 6-33

Prepare a worksheet for output.

AllAround Vision Care maintains investment accounts with a financial institution. It keeps a worksheet that tracks and compares results for each year. The figures are entered, and you need to prepare the worksheet for printing each year's information on its own sheet. Then you are to save the workbook in Excel 97-2003 format.

TIP

Set the zoom percentage to see more on the screen.

1. Open **Excel_LA6-33** and save it as ***[your initials]*6-33**.
2. Check column widths for data visibility. Change the page orientation to landscape. Increase the left indent 2 spaces for cells A9:A10 and cell A15.
3. Center cell B3 across cells B3:G3 or use Merge and Center. Do the same for all years.

4. Set rows 1:2 and column A as print titles. Then set page breaks so that each year's data are on a separate page. Adjust the margins or use the Scale to Fit group to fit each year on its own sheet.
5. In the center footer section, show the file name and the sheet name on one line with a space between them. Press Enter, and on the second line in the center section, show **&Page of &Pages**.
6. Save the workbook again. Then save it with the same file name in Excel 97-2003 format.
7. Prepare and submit your work.

Exercise 6-34

Create and edit cell styles. Prepare a worksheet for output.

Some vision procedures are funded by various government agencies. AllAround Vision Care and similar companies in other cities track the number of funded procedures. From U.S. Census Bureau data, they can estimate numbers for the next year. The calculations are complete, but you are to create the styles, apply them, and create a PDF file.

NOTE

Column E uses a nested IF formula.

REVIEW

New cell styles start as a copy of the Normal style.

1. Open **Excel_LA6-34** and save it as ***[your initials]*6-34**.
2. Click the Select All button. Clear the formats from all the cells and click any empty cell.
3. Create a new style named **MyTitle** that uses 18-point bold and italic Cambria as the font.
4. Create a new style named **MyHeading** that uses 14-point bold and italic Cambria with a single bottom border.
5. Create a new style named **MyRowFill** that applies a light gray fill and nothing else.
6. Apply the MyTitle (rows 1:3) and MyHeading (for row 4) cell styles. Apply the MyRowFill cell style to the data in even-numbered rows. Apply the Comma style with no decimals to the values in columns C, E, and F.
7. Set landscape orientation. Adjust column widths and label alignment as needed. Set vertical borders between the columns. Center the page horizontally. Hide rows 19:22.
8. Save the workbook as a PDF file.
9. Prepare and submit your work.

Exercise 6-35 ◆ Challenge Yourself

Use date arithmetic.

Employees at AllAround Vision Care receive a reduced insurance copay amount after 2 years of service. The company uses 365.25 days as the number of days in a year. There is an error on the worksheet that you are expected to correct before completing the formatting.

1. Open **Excel_LA6-35** and save it as ***[your initials]*6-35**.
2. Find and correct the error.
3. Increase the indent for all columns with labels so that no label is immediately adjacent to a vertical border.
4. Prepare a formula sheet, fit to a single landscape page.
5. Prepare and submit your work.

On Your Own

In these exercises you work on your own, as you would in a real-life work environment. Use the skills you've learned to accomplish the task—and be creative.

Exercise 6-36

Create a new workbook and save it as ***[your initials]*6-36**. Key My Age in Days and Years as a label. In cell A3, key =TODAY(). In the cell below the date, key a formula to add 365.25 days to today. Copy this formula to reach 10 years from now. Key your birth date in cell F3 in mm/dd/yy format. In cell B3, use the DAYS360 function to calculate your age in days for each date in column A. Format the results as a Comma style number. In column C, divide the number of days by 360 to calculate your age in years. Add labels and format your work attractively. Prepare and submit your work.

Exercise 6-37

Create a new workbook and save it as ***[your initials]*6-37**. Key the names of 10 persons in column A. Key their heights in inches or centimeters in column B. Key their weights in column C in pounds or kilograms. In column D, create an IF formula that shows the word "tall" for people who are over a specific height. In column E, create an IF formula that shows "above average" for persons over a certain weight. You choose the heights and weights that serve as criteria. Create an AND function to show true for persons who are tall and above average in weight in column F. Format your work attractively. Prepare and submit your work.

Exercise 6-38

In a new workbook, key your name and the names of three family members in cells A3:A6. In column B, key birth dates for this year for each person. In column C, calculate the number of days until the person's next birthday. Add explanatory labels. Select a document theme, and apply existing cell styles or create your own. Save the workbook as ***[your initials]*6-38**. Prepare and submit your work.