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 in a Function Arguments dialog box.

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

T F   4. All financial functions include a rate argument.

T F   5. Arguments in a function are separated by commas.

T F   6. The Cell Styles gallery includes styles for values as well as labels.

T F   7. The PMT function determines how much your money will grow over a period of time.

T F   8. The Print Titles option can repeat rows or columns on each page of a worksheet.

Short Answer Questions

Write the correct answer in the space provided.

1. What dialog box helps you complete built-in functions with entry boxes for each argument?

_____

2. Which argument in a financial function refers to the total number of periods (also the total number of payments or deposits)?

_____

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

_____

4. What Excel feature lets you see the results of a cell style before applying it?

_____

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

_____

6. How can you distinguish between an automatic page break and one that you placed?

_____

7. Which financial function would help you determine how much money will be in your account at the end of a year if you make regular deposits?

_____

8. What is the purpose of the Type argument in financial functions?

_____

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. Why are there separate logical operators for greater than (>) and greater than or equal to (>=)?

2. Which financial functions do you recognize or can you figure out from the Financial category? Explain how two financial functions that you did not use in this lesson might work in a business setting.
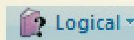
Skills Review

NOTE

If you see small triangles in the lower-right corners of cells with dates, SmartTags are enabled. You can ignore SmartTags for now.

NOTE

You cannot key a date as the logical test in an IF function, but you can refer to a cell with a date.

Logical ▾

↔ REVIEW

Use an absolute reference when the cell address should not change as the formula is copied.

Exercise 7-22

Use the IF function.

1. Open **CustBirth** and save it as *[your initials]*7-22 in your Lesson 7 folder.

2. Right-click the column D heading and insert a column. In cell D3, key **Born after 2000?**

3. In cell A21, key **12/31/00**. This is the last date in 2000, and you will refer to this cell in the IF function.

4. Use the IF function by following these steps:

   a. Click cell D4 and click the **Formulas** tab.

   b. Click the Logical button **Logical ▾** and choose **IF**.

   c. Click cell C4 and key >.

   d. Click cell A21 and press F4 to make the reference absolute. The logical test determines if the date in cell C4 is greater than the date in cell A21 (that is, it is after that date).

e. Click in the **Value_if_true** box. Key **Yes**.

f. Click in the **Value_if_false** box. Key **No** and click **OK**.

5. Center the results. Copy the formula to cells D5:D20.

6. Right-click the row 21 heading and hide the row. Add the missing border. Press Ctrl+Home.

7. Add a header. On the Page Layout tab in the Scale to Fit group, set both the Width and Height commands to **1 page**.

8. Make a copy of the worksheet and name it **CustBirthdaysFormulas**. Display the formulas, fit the columns, and fit the sheet to one landscape page.

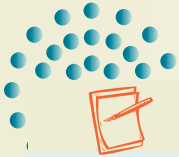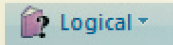9. Prepare and submit your work. Save and close the workbook.

Exercise 7-23

Use AND, OR, and NOT functions.

1. Open the New Workbook dialog box. Click **My templates** and double-click **KlassyBirth**.

2. Save the workbook as **[your initials]7-23** in your folder.

3. Key the following information, starting in cell A8.

Figure 7-17

Name	Shop	Age	Male/Female
[your first and last name]	Wenatchee	[your age]	[your gender]
Carole Greenfield	Olympia	10	F
Michael Westberg	Yakima	5	M
Hashima Yeng	Kelso	6	M
Krystal Chavez	Bremerton	8	F
Pedro Juarez	Yakima	7	M
David Hutchinson	Wenatchee	5	M
Melinda Brown	Kelso	4	F

4. Use an AND function by following these steps:

   a. Click cell E8 and click the **Formulas** tab.

   b. Click the Logical button [Logical ▾] 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.

5. 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 **="f"** and press [Enter].

   e. Copy the formula in cell F8 to cells F9:F15.

> **NOTE**
>
> Text in an AND/OR function must be enclosed in quotation marks.

6. Use a NOT function by following these steps:

   a. In cell G8, key **=not** and press [Tab].

   b. Click cell D8 and key **="f"** and press [Enter].

   c. Copy the formula.

7. Add your footer. Fit the sheet to one landscape page.

8. Make a copy of the sheet and name it **CustBirthdaysFormulas**. Display the formulas and fit this sheet to one landscape page.

9. Prepare and submit your work. Save and close the workbook.

Exercise 7-24

Work with styles. Work with page breaks. Set print titles.

1. Open **PerfRating**. Save the workbook as *[your initials]*7-24.

2. Apply styles by following these steps:

   a. Press [F8] and then press [Ctrl]+[End].

   b. On the **Home** tab, click the Clear button [2▾] in the **Editing** group. Choose **Clear Formats**.

   c. Select cells A1:A2. Click the Cell Styles button [📊] and choose **Title**.

> **NOTE**
>
> Column E uses a nested IF formula.

   d. Select cells A3:F3 and apply the **Heading 2** style.

   e. Make columns A:C each **15.00 (110 pixels)** wide.

3. Create and apply styles by following these steps:

   a. Click the Cell Styles button [📊] and choose **New Cell Style**.

> **NOTE**
>
> Your style starts as a copy of the Normal style.

   b. Key **Amounts** in the **Style name** box and click **Format**.

   c. Click the **Number** tab. Set **Currency** with 0 decimal places and a dollar sign, and click **OK**. Click **OK** again.

d. Click the Cell Styles button ⬜ and choose **New Cell Style**. Key **Increase** in the **Style name** box, and click **Format**.

e. Click the **Number** tab. Set **Currency** with 0 decimal places and a dollar sign.

f. Click the **Font** tab. Set 11-point Calibri bold. Choose a dark blue theme color from the **Color** list. Click **OK**. Click **OK** again.

g. Create a style named **Ratings**. Click the **Font** tab. Set 11-point Calibri bold. On the **Alignment** tab, choose **Center** for the **Horizontal** setting. Click **OK**. Click **OK** again.

h. Select cells C4:C16 and F4:F16. Apply the **Amounts** style.

i. Apply the **Increase** style to cells E4:E16 and the **Ratings** style to cell D4:D16 and to cells D18:D20.

j. Apply the **Percent** style to cells E18:E20.

4. Click cell D3 and press [F2]. Click after the final "e" in "Performance" and press [Alt]+[Enter]. Then press [Enter].

5. Make columns D:E each **15.00 (110 pixels)** wide. Center the label in cell D3.
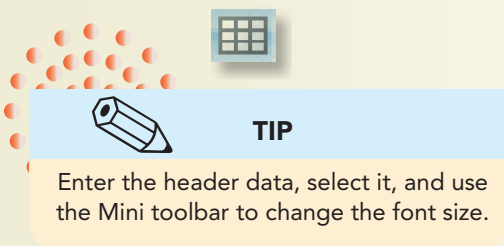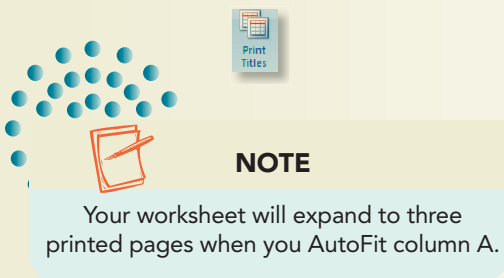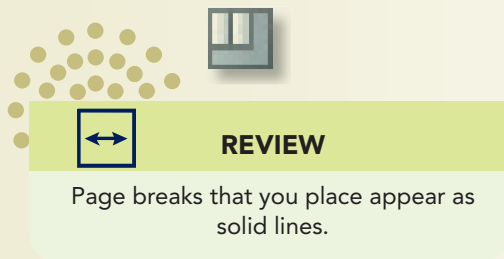
6. Work with page breaks by following these steps:

a. Click the Page Break Preview button ⬜. Click **OK** in the message box.

b. Rest the mouse pointer on the blue dashed line to display a two-pointed arrow.

c. Drag the dashed-line page break so that it is between columns C and D.

7. Set print titles by following these steps:

a. Click the **Page Layout** tab. Click the Print Titles button ⬜.

b. In the **Print titles** section, click in the **Rows to repeat at top** box.

c. Select cells A1:A2. Excel inserts an absolute reference for rows 1:2.

d. Click in the **Columns to repeat at left** box. Click anywhere in column A.

e. Click **Print Preview**. Check the labels in column A on both pages.

f. Close Print Preview.

g. Click the Normal button ⬜. AutoFit column A.

8. Add a header, but change the font to 8 points for each section.

9. Prepare and submit your work. Save and close the workbook.

Exercise 7-25

Use PMT and FV functions. Use a depreciation function.

1. Open **Comparison** and save it as *[your initials]7-25*.
2. In cells B3:B5, key data for a $15,000 loan at 5.9% for three years. In cell B6, key **=** and click cell B5. Key ***12** and press Enter.
3. In cells E3:E5, key data for a $15,000 loan at 6.5% for four years. Use the formula in cell E6 to determine the number of payments.
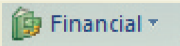
4. Use the PMT function by following these steps:
   a. Click the **Formulas** tab.
   b. In cell B7, click the Financial button Financial ▾ . Choose **PMT**.
   c. Click cell B4 and key **/12** in the **Rate** box.
   d. Click in the **Nper** box and then click cell B6.
   e. Click in the **Pv** box and then click cell B3.
   f. Click in the **Type** box and key **1**. Click **OK**.
   g. Copy the formula in cell B7 to cell E7.

5. Copy cells A1:A2 to **Sheet2**. Edit the label in cell A2 to say **Savings Comparison**. In cells A3:A6, key the following labels:
   Savings Amount
   Rate
   Years for Savings
   Total # of Deposits

6. Widen column A for the longest label and format row 3 as **27.00 (36 pixels)** high. Copy cells A3:A6 to cells D3:D6. Make column D the same width as column A.

7. In column B, key data for saving $50 a month at 6.25% for three years. Use a formula to determine the number of deposits.

8. In column E, key data for saving $100 a month at 6.5% for four years.

9. Use the FV function by following these steps:
   a. In cell B7, click the **Formulas** tab and the Financial button Financial ▾ . Choose FV.
   b. Click cell B4 and key **/12** in the **Rate** box.
   c. Click in the **Nper** box and then click cell B6. Click in the **Pmt** box and then click cell B3.
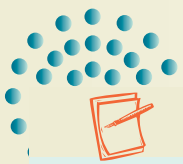
Financial ▾

    d. Click in the **Type** box and key **1**. Click **OK**.

    e. Copy the formula in cell B7 to cell E7. Widen columns as needed.

10. Rename **Sheet2** as **Savings**. Group these two sheets and insert a column at column A and a row at row 1.

11. Apply a double outline border to cells A1:G9. Apply dotted middle horizontal and bottom borders to cells B4:C7 and cells E4:E7. Center the two main labels across the data. Ungroup the sheets.

12. Rename **Sheet3 Depreciation**. Set cells A1:A2 for 16-point Calibri. In cell A1, key **Klassy Kow Ice Cream, Inc.** In cell A2, key **Asset Depreciation for Storage Tanks**.

13. Use 14-point Calibri for cell A3 and key **DDB Method**. Make columns A and C each **27.86 (200 pixels)** wide.

14. Set Calibri bold for cells A4:C15. Key the following labels and values:

	A	B	C
4	Cost		$300,000
5	Salvage		$15,000
6	Life in Years		8

15. In cell A8, key **1st Year** and in cell A9, key **2nd Year**. Select these two cells and use the Fill handle to fill down column A to **8th Year**. In cell B8, key **1** and in cell B9, key **2**. Fill this series down to **8**.

16. Use a depreciation function by following these steps:

    a. In cell C8, click the Insert Function button f_x.

    b. Choose **Financial** and **DDB**. Click **OK**.

    c. Click cell C4 for the **Cost** and press F4 to make the reference absolute.

    d. Click in the **Salvage** box, click cell C5, and press F4.

    e. Click in the **Life** box, click cell C6, and make it absolute.

    f. Click in the **Period** box, click cell B8, and leave it a relative reference.

    g. Leave the **Factor** box empty. Click **OK**.

    h. Copy the formula down to row 15.

17. Hide column B. Center the labels in rows 1:3 across the data.

18. Group all three worksheets and click the **Page Layout** tab. Click the Dialog Box Launcher for the **Page Setup** group. Horizontally center the sheets. Add a footer to the grouped sheets from this dialog box.

19. Prepare and submit your work. Save and close the workbook.

NOTE

The DDB depreciation function is double-declining balance.

NOTE

By showing the years as simple values, you can copy the formula.

Lesson Applications

Exercise 7-26

Use the IF function.

1. Use the **KlassyBirth** template to create a workbook. Save it as *[your initials]***7-26**.

2. Click the Expand Formula Bar button ⌄ and edit the label in cell B3 to show **Favorite Flavor** on the second line. Change **Age** in cell C7 to **Flavor**. Collapse the formula bar.

> **TIP**
>
> Look for recently used templates in the New Workbook dialog box.

3. In cells A8:D13, key the following information:

Figure 7-18

	Name	Shop	Favorite Flavor	M/F
4	Marian Most	Las Vegas, Green	Chocolate	F
5	Tommy Dunne	Lake Las Vegas	Bubble Gum Goo	M
6	Luella Orr	Carson City	Chocolate	F
7	Patrick Adams	Reno	Vanilla	M
8	Asata Akai	Henderson	Strawberry	F
9	Efren Aldo	Las Vegas, Sunnyvale	Chocolate	M

4. Widen columns B and C slightly. Left-align the flavors in column C and increase the indent once.

5. Key **Chocolate?** as the label in cell E7 and adjust the column width.

6. Use the IF function in cell E8 with **C8="chocolate"** as the **Logical_test**. Show **Yes** if the customer's favorite flavor is chocolate. Show **Other** if chocolate is not the favorite. Copy the formula for the rest of the names and center the results.

7. Delete columns F and G. One of the images may be deleted with the columns. Center the sheet horizontally. Add a header.

8. Make a copy of the worksheet and name it **CustBirthdaysFormulas**. Display the formulas and adjust column widths. Don't size the picture. Fit the sheet to one landscape page.

9. Prepare and submit your work. Save and close the workbook.

Exercise 7-27

Work with page breaks.

The financial staff keeps track of retirement accounts for Klassy Kow employees. The worksheet should be printed with each year on a separate page. Each year details five funds.

1. Open **RetireAcct** and save it as *[your initials]*7-27.

2. Increase the left indent 2 spaces for cell A10. Change the page orientation to landscape.

3. Center cell B3 across cells B3:G3. Repeat these steps for all years.

4. Set page breaks so that each year's data is on a separate page. Set rows 1:2 and column A as print titles. Use the Scale to Fit group to fit the sheet to three pages wide, one page tall.

5. Add a header with your name at the left. In the center section, show the filename and the sheet name on one line. Press Enter and on the second line in the center, show **&Page of &Pages**. Include the date in the right section.

6. Prepare and submit your work. Save and close the workbook.
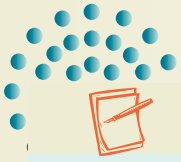
Exercise 7-28

Use AND and OR functions.

1. Open **SerAwards**. Save it as *[your initials]*7-28 in your folder.

2. In cell E4, use an AND function to show TRUE if the employee has greater than two years of service and a performance rating equal to 4. Copy the formula to cells E5:E16.

3. In cell F4, use an OR function to show TRUE if the employee has greater than four years of service or a performance rating equal to 4. Copy the formula.

4. Add an icon set using **3 Symbols (Circled)** for column D. Edit the rule to show a green check mark for any rating equal to or greater than 3. Show an exclamation point for any other number. The red X should not appear at all.

5. Set the page to be horizontally centered. Add a footer using a 9-point font for all sections.

6. Make a formula sheet and fit it to one landscape page.

7. Prepare and submit your work. Save and close the workbook.

Exercise 7-29 ◆ Challenge Yourself

Use the PMT function to calculate mortgage payments at different interest rates.

Klassy Kow Ice Cream, Inc., must choose a construction loan to finance expansion at the headquarters building. This worksheet analyzes information from four lenders. The loan will be for $500,000, 10 years, payments made at the beginning of each month.

1. Open **LoanComp** and save it as *[your initials]*7-29.

2. Review the formulas. There are two errors in formulas that result in incorrect values on this worksheet.

3. Correct the errors and make format adjustments as needed.

4. Add a header and fit the sheet to a single portrait page.

5. Prepare a formula sheet. On this sheet, add different fill to the cells that you edited. Fit the formula sheet to a portrait page.

6. Prepare and submit your work. Save and close the workbook.

NOTE

A total cost is calculated by multiplying the monthly payment by the total number of payments.

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 7-30

Assume you are a bank professional who expects a 6% return on money you lend. Create a new workbook to determine how much you can lend to a customer who can afford to pay $200 a month for five years. Use Help to learn about the PV function and use it in your workbook. Assume payments will be made at the beginning of the month. Decide how to format your data, and add a header or footer. Save the workbook as *[your initials]*7-30. Prepare and submit your work.

Exercise 7-31

Open **CustCount**. Select the rows for a state and apply a cell style from the Themed Cell Styles group. Use a different style for each state. Set landscape orientation and insert page breaks so that each state is on its own page. Add a footer that includes page numbers. Save the workbook as *[your initials]*7-31. Prepare and submit your work.

Exercise 7-32

Open **AR** and save it as *[your initials]7-32*. Copy cells A2:E16 to cell A17 and again to cells A32 and A47. Add your usual footer and include the page number in the center. Look at the worksheet in Print Preview and in Page Break Preview. Excel prints the pages down and then over. On the **Sheet** tab of the Page Setup dialog box, change this setting to print over and then down. Prepare and submit your work.