

## UNIT 3—INTRODUCTORY MICROSOFT EXCEL

### LESSON 6—MAKING THE WORKSHEET USEFUL

#### Objectives

- Sort data in a worksheet.
- Use the AutoFilter to extract specified data from the worksheet.
- Hide worksheet columns or rows.
- Use the Drawing toolbar.
- Insert a picture in a worksheet.
- Use Excel templates to format a worksheet.
- Insert a hyperlink in a worksheet file.
- Save a workbook in a different file format.
- Add and edit comments.
- Create and respond to discussion comments.
- Use the Research tool.

#### Teaching Materials

- Learner text
- Data files from the **Data Files for Students** drop-down menu on the *Instructor's Resource* CD-ROM
- PowerPoint presentation from the **PowerPoint Presentations** drop-down menu on the *Instructor's Resource* CD-ROM
- Solutions to Step-by-Step exercises, review questions, and projects from the **Solutions to Exercises** drop-down menu on the *Instructor's Resource* CD-ROM
- ExamView® test questions from the **Test Bank & Test Engine** drop-down menu on the *Instructor's Resource* CD-ROM
- Grading rubrics and annotated solutions from the **Additional Faculty Files** drop-down menu on the *Instructor's Resource* CD-ROM

#### Prepare

- Focus learners' attention on the objectives for the lesson.
- Set up a projection system and show the PowerPoint presentation for the lesson, if desired.
- Make sure learners know how to access the data files for this lesson.
- Prepare questions from ExamView.

#### Technical Notes

Make sure all computers are connected to a functioning printer. Ideally, learners will have Internet access so that they can use clip art from Office Online and use the Research tool.

## Lecture Notes and Teaching Tips

This lesson stresses the variety of Excel operations that make worksheets easier to use. They include sorting, filtering, and hiding. In addition, this lesson instructs learners on how to insert pictures and hyperlinks into a worksheet. Finally, learners are instructed how to use templates and save files in a different format. Because of the wide variety of topics, you should be prepared for the fact that learners may grasp certain topics in the chapter faster than other topics.

Sorting, filtering, and hiding have the potential to significantly alter the worksheet. If a mistake is made, learners should be reminded that the Undo command will reverse their previous action. In cases of severe problems, the Step-by-Step should be reopened from their learner data files.

The template portion of this lesson requires that the templates on the Excel installation disk be on the learner's hard drive. In preparation for this lesson, you should be sure that these templates are properly installed in your learners' computers.

### *Sorting Data*

This section explains how to sort data in both ascending and descending order. Make sure learners can distinguish between an ascending and descending sort. You should also point out that there should always be at least one blank row between the worksheet title(s) and the data to be sorted, but there should be no blank rows within the list of data to be sorted.

### Quick Quiz

1. True or False? If you were to sort a list of data in ascending order according to the total sales for each department, the department with the lowest sales would be at the top of the list.

**Answer: True**

2. True or False? You can sort data by columns that contain only numbers.

**Answer: False**

### *AutoFilter*

Learners should enjoy working with the AutoFilter feature. Make sure they understand that the rows of data that are filtered out are only hidden temporarily. The data can easily be restored by choosing (All) on the AutoFilter list.

### Quick Quiz

1. The \_\_\_\_\_ list contains all the values that appear in a specified column.

**Answer: AutoFilter**

2. True or False? The Top 10 option on the AutoFilter list enables you to display both the top and bottom items in a list.

**Answer: True**

### ***Hiding Columns and Rows***

This section explains how to hide and unhide columns and rows. Explain to learners that you might want to hide sensitive data, such as employee salary information, so that you can work in a worksheet and not have to worry about others seeing it.

### **Quick Quiz**

1. True or False? To redisplay a hidden row or column, you must close the workbook and then reopen it.

**Answer: False**

2. The Hide command is accessed through which of the following menus?

A. File

C. View

B. Edit

D. Format

**Answer: D**

### ***Using the Drawing Tools***

Excel's Drawing toolbar is similar to Drawing toolbars in other Office applications, such as Word and PowerPoint. If time permits, let learners experiment with all of the drawing tools in a blank worksheet.

### ***Creating Objects***

The Drawing toolbar can be displayed by clicking the Drawing button or selecting Toolbars on the View menu and then selecting Drawing. Have learners point to each button on the Drawing toolbar to become familiar with all drawing options.

### ***Editing Drawn Objects***

Learners are taught how to make basic changes and modifications to objects. If time permits, you might want to have them draw some objects in a blank worksheet. Then have them right-click the object and select various options from the shortcut menu. The Format option on the shortcut menu opens a dialog box with many options for modifying the object.

### **Quick Quiz**

1. True or False? The best way to change the border color of a square shape you have drawn on the worksheet is to delete the object and redraw it from scratch.

**Answer: False**

2. One way to display the Drawing toolbar is to click the \_\_\_\_\_ button on the Standard toolbar.

**Answer: Drawing**

### ***Adding a Picture to a Worksheet***

This section provides examples of the effective use of pictures and graphics in a worksheet. Make sure learners understand that they can insert pictures from a variety of resources, such as electronic photo galleries or clip art and graphics libraries. Be sure to emphasize copyright concerns and the importance of obtaining permissions when necessary to use pictures.

### ***Inserting a Picture in a Worksheet***

Learners should enjoy working with pictures and graphics. If time permits, let them visit Office Online and browse through the categories of clip art.

### ***Editing a Picture***

The Picture toolbar contains tools that give you more control over the quality of pictures and graphics placed in the worksheet. Explain that quality is important when the worksheet is part of a printed presentation.

### **Quick Quiz**

1. True or False? You use the Picture task pane to search for a picture file that can be inserted in a worksheet.  
**Answer: False**
2. Which of the following toolbars contains tools for enhancing the quality of a picture inserted in the worksheet?  
A. Formatting  
B. Drawing  
C. Picture  
D. Graphics

**Answer: C**

### ***Using Templates***

This section discusses the templates that come with Excel and those that are provided through Office Online. You might also explain to learners that they can create their own template. To do this, you simply create the “shell,” which is the worksheet that contains the data that will remain the same, and then you specify Template in the Save As dialog box from the *Save as type* list box.

### **Quick Quiz**

1. True or False? Excel templates are available only through Office Online.  
**Answer: False**
2. Template files can be accessed from the \_\_\_\_\_ task pane.  
**Answer: New Workbook**

### ***Inserting Hyperlinks***

Learners are instructed how to insert a hyperlink in a worksheet. Explain that a hyperlink can link to not only a Web page, but also to other workbook and computer files, such as a Word document or an Access database table.

### **Quick Quiz**

1. True or False? You can insert hyperlinks to Web pages only.  
**Answer: False**
2. The Insert Hyperlink button is on the \_\_\_\_\_ toolbar.  
**Answer: Standard**

### ***Saving Workbooks in a Different Format***

Review the various file types listed in Table 6-2. This will help learners understand how easy it is to integrate worksheet data with other types of documents and files.

## Quick Quiz

1. True or False? The Web Page format saves worksheet data so that it can be displayed on the Internet.

**Answer: True**

2. Worksheet data that is separated by tabs is in the \_\_\_\_\_ file format.

**Answer: Text**

## *Viewing and Editing Comments*

Comments are useful for calling out or highlighting certain data. They can be likened to sticky notes that you might attach to a printed copy of a file or document.

### *Inserting a Cell Comment*

This section discusses how to insert and edit a comment. Explain to learners that, by default, comments do not remain displayed on the worksheet. You can choose to keep them on-screen by selecting Comments on the View menu. You can also print comments as they appear on the sheet or in a list at the end of the worksheet by choosing from the Comments list box on the Sheet tab of the Page Setup dialog box.

### *Using Discussion Comments*

Web discussions and discussion servers are explained in this section. Learners do not use discussion comments in this course, but if you have the capabilities, you might want to post a workbook to a discussion server and demonstrate how this feature works.

## Quick Quiz

1. True or False? A red triangle appears in the corner of a cell to indicate that it contains a comment.

**Answer: True**

2. True or False? You cannot change a cell comment, but you can delete it.

**Answer: False**

## *Using the Research Tool*

The Research tool is a new feature in Excel 2003. You can use it to access all kinds of information online including word definitions, scientific facts, and stock prices.

## Quick Quiz

1. The Research button is on the \_\_\_\_\_ toolbar.

**Answer: Standard**

2. True or False? You must have Internet access in order to utilize the Research tool.

**Answer: True**

## Discussion Questions

1. How can graphics and pictures support or enhance the presentation of data in a worksheet?
2. Excel has pre-prepared template files that are useful in performing common worksheet tasks. Give an example of a template you might design for your personal use.
3. What are some uses for cell comments in a worksheet?

## Key Terms

- **AutoFilter:** Displays a subset of the data in a worksheet that meet certain criteria.
- **AutoFilter arrows:** Appear at the lower right corner of the column headings. By clicking the arrow, a drop-down list will appear that allows you to display a specific row, the top ten items in the column, a customized search, or restore all the data in the worksheet.
- **Comment:** Message that provides information concerning data in a cell.
- **Discussion server:** A Web server that accommodates discussion of an Office file on the Internet.
- **Hiding:** Temporarily removes a worksheet row or column from the screen.
- **Hyperlink:** Words or objects that may be clicked to move from page to page within your Web site or jump to another Web site.
- **Research tool:** Can provide numerical data typically used in a worksheet, such as statistics or corporate financial data.
- **Sorting:** Arranges a list of words or numbers in ascending order (A to Z; smallest to largest) or in descending order (Z to A; largest to smallest).
- **Template:** A file that contains page and paragraph formatting and text that you can customize to create a new document similar to, but slightly different from, the original.
- **Web Discussion:** Permit several worksheet users to view and comment on an Excel worksheet that has been posted on the Internet.

## Projects to Assign

- In Project 6-1, learners will sort data, enter a logical IF function and copy it, and determine which employees are underpaid. They will then save, print, and close the workbook file.
- In Project 6-2, learners will sort data in two ways. They will then save, print, and close the workbook file.
- In Project 6-3, learners will run AutoFilters and then answer questions about the results of the filters. They will then save and close the workbook file.
- In Project 6-4, learners will hide data and print the worksheet. They will then unhide data.
- In Project 6-5, learners will use an Excel template to create a workbook. They will then save, print, and close the workbook file.
- In Project 6-6, learners will insert, modify, and reposition a picture. They will then save, print, and close the workbook file.
- In Project 6-7, learners will insert comments. They will then save, print, and close the workbook file.
- In Critical Thinking Activity 6-1, learners give a brief description of several Excel templates. The template files installed with Excel accomplish the following tasks:
  1. **Balance Sheet** – Reports the balances of amounts to be received from others and amounts owed to others.
  2. **Expense Statement** – Reports travel expenses of an employee for the purpose of reimbursement.

3. **Loan Amortization** – Summarizes the amount of payments of interest and principal to be made in a loan.
- In Critical Thinking Activity 6-2, Excel will direct learners to the Web site: <http://office.microsoft.com/clipart>. There are many clip art items for each of the requested categories.

## **Assess**

Administer the ExamView test for Lesson 6.