

Chapter

1

Working with Data

When you use Excel, you are primarily working with *numbers*. Wherever you use numbers in your life — doing taxes, running a small business, planning a vacation, analyzing investments, maintaining a budget, keeping track of a coin collection, or something else — Excel can probably help make your work easier, quicker, and more accurate. With Excel, you can also explore new ways of entering, presenting, and analyzing your information.

To get the most from Excel 2003, you need to be able to enter and work with whole numbers, decimals, fractions, dates, and times. This chapter shows you how to make data entry more efficient. Using a *pick list* narrowly restricts data entry to a set of numbers and other values that you define, thus minimizing error. The Excel AutoFill feature lets you fill a row or column with a series of numbers, dates,

or times automatically generated from one or more values. This chapter also shows you how to incorporate symbols and special characters in your worksheets.

Two techniques for viewing your information allow you to compare different parts of your worksheet: freezing panes and outlining. Both temporarily hide part of your worksheet to make comparisons easier.

Two data-entry tasks can be indispensable for people with disabilities, and for anyone who wants an occasional alternative way of entering data: by keyboard instead of mouse, and by voice. Finding and replacing data is a useful technique regardless of how you enter data. Finally, you learn in this chapter about InfoPath, which makes it easier to generate a wide variety of complex business worksheets.

Top 100

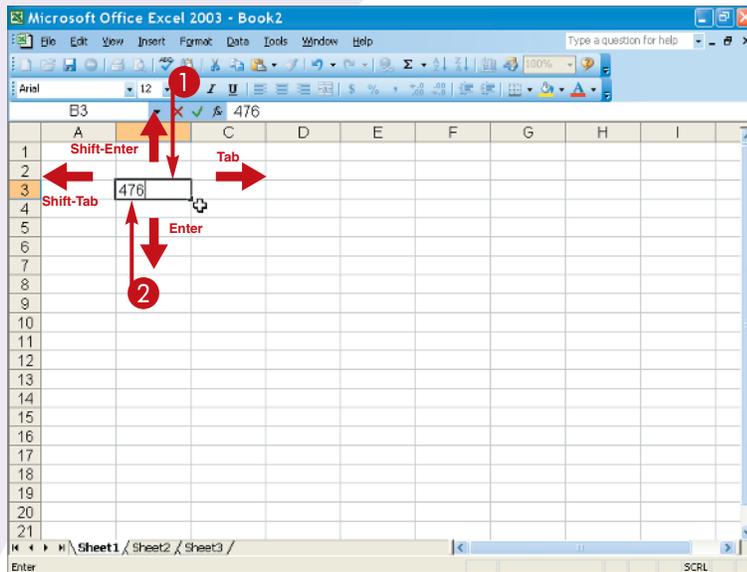
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Enter NUMBERS AND FRACTIONS

With Excel, you can type all kinds of numbers. The simplest kind of number is the whole number, such as seven (7). Excel is a spreadsheet program that greatly simplifies the structured and sometimes finicky process of entering and manipulating numbers. Excel can hold other kinds of information, but number processing defines what Excel does best. A document in Excel is called a *workbook*. New workbook documents consist of three worksheets. With Excel, you can add more worksheets at any

time. Each worksheet is a grid of rows and columns. The columns are indicated by letters, and the rows by numbers. A *cell* is the unit of every worksheet where you enter numbers. Each cell has a unique address, defined by a row and column, such as D5.

You can also enter fractions and have them appear in either decimal form (.75) or as fractions ($\frac{3}{4}$). All numbers you type in Excel appear both in the cell and in the formula bar above the worksheet.

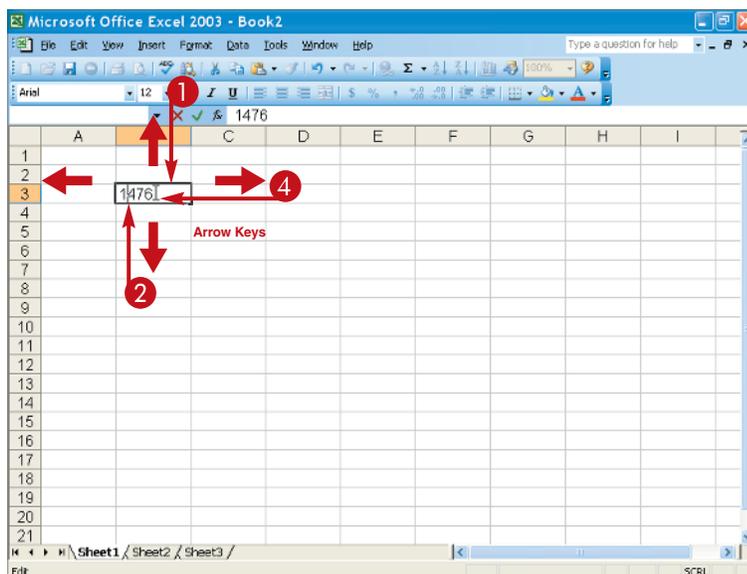


ENTER A WHOLE NUMBER

- 1 Click a cell.
- 2 Type the number.
- 3 Press Enter to move down one cell.

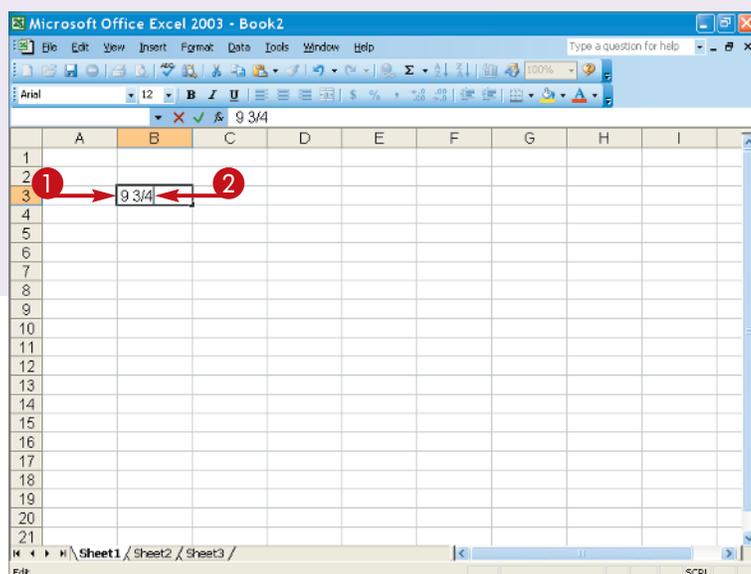
To move one cell to the right, press Tab.

The number moves to the right side of the cell in which it is entered.



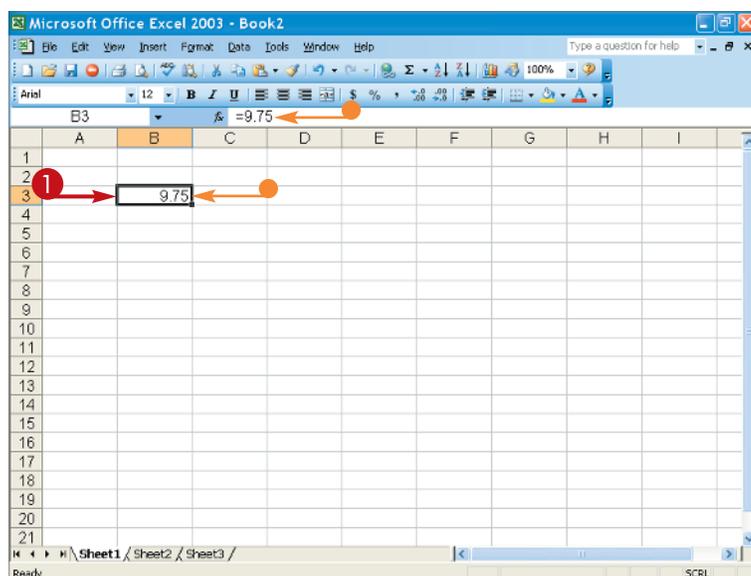
EDIT A NUMBER

- 1 Double-click its cell.
- 2 Press the arrow keys to position the cursor before the number to change.
- 3 To delete numbers, press Delete.
- 4 To insert numbers, type the numbers in a cell.
- 5 Press Enter, or Tab, or click another cell to go on to the next task.

**ENTER A FRACTION**

- 1 Click a cell.
- 2 Type a whole number followed by a space and the fraction.
- 3 Press Enter, or Tab, or click another cell to go on to the next task.

The fraction appears in the cell.

**CONVERT A FRACTION INTO A DECIMAL**

- 1 Click a cell.
- 2 Type an equal sign (=).
- 3 Type the whole number followed by a space and the fraction.
- 4 Press Enter.
 - The decimal appears in the cell, while the equal sign is still visible in the formula bar.

TIPS**Apply It!**

To change a fraction into a decimal, you can also enter it into a cell and reformat it. Click the cell, and then click Format and Cell. The Format Cells dialog box appears. Under the Number tab, click Number in the category list. In the Decimal Places box, indicate how many places to the right of the decimal point you want to display. For example, if you format .75 with three decimal points in the Format Cells box, 750 will appear in the cell when you close the box.

Customize It!

After entering a number, you can move the cursor one cell up, down, right, or left. To set this option, click Tools and Options. In the Options dialog box, click the Edit tab. Under Settings, select the Move selection after Enter check box. Then click the Direction down arrow and select a setting. Press OK.

Enter DATES AND TIMES

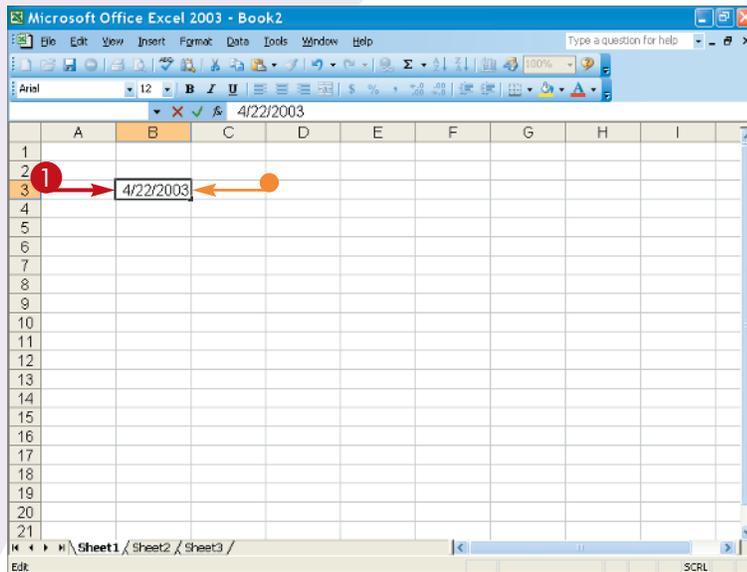
With Excel you can enter the current date by simply selecting the cell where you want the date to appear and pressing the Ctrl and semicolon (;) keys simultaneously.

For past and future dates, you have many ways to enter dates, including: Aug 1, 1914; August 1, 1914; 1 Aug 1914; 08-01-1914; 8-1-1914; 08/01/1914; and 8/1/1914.

Each date format has at least one non-numeric character such as a forward slash (/), comma (,) hyphen (-), or text as in a month's name or abbreviation. For years between 1930 and 2029,

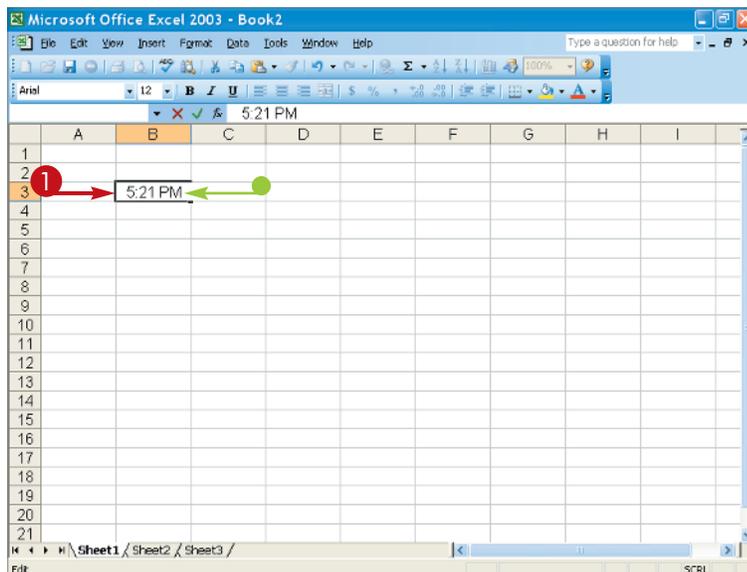
you can enter a year as two digits (31). For the sake of formatting consistency across worksheets, however, it is a good idea to use four digits to represent years, for example, 1931.

Times are simpler to enter. Enter the current time by pressing Ctrl+Shift and pressing the semicolon key (;) simultaneously. For other times, hours and minutes each consist of one or two digits, separated by a colon, such as 11:11 AM. A leading zero is not necessary, as in 3:00. Excel assumes that a time is AM unless you indicate otherwise by typing PM.



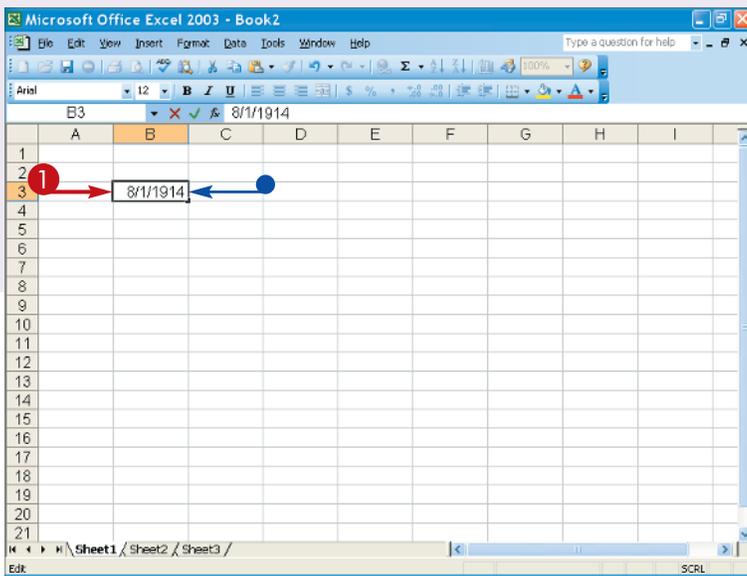
ENTER CURRENT DATE

- 1 Click the cell where the date is to appear.
 - 2 Press Ctrl.
 - 3 Type a semicolon (;).
 - 4 Press Enter.
- The current date appears in the cell.



ENTER CURRENT TIME

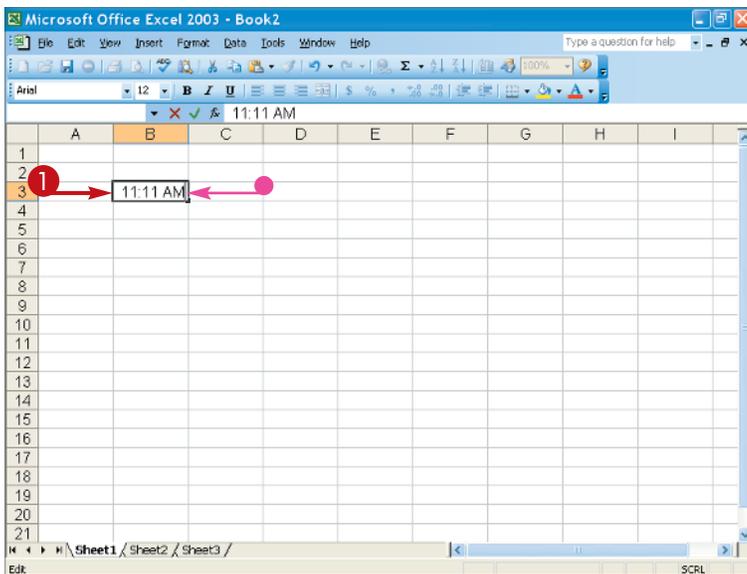
- 1 Click the cell where the date is to appear.
 - 2 Press Ctrl+Shift.
 - 3 Type a semicolon (;).
 - 4 Press Enter.
- The current time appears in the cell.



ENTER A DATE

- 1 Click the cell where the date is to appear.
- 2 Type a date.
- 3 Press Enter.
 - The date appears in the cell, formatted according to the current settings for that cell.

#2



ENTER A TIME

- 1 Click the cell where the time is to appear.
- 2 Type a time.
- 3 Press Enter.
 - The time appears in the cell, formatted according to the current settings for that cell.

TIPS

Did You Know?

To change the way a date or time appears in a cell, click its cell. Click **Format** and then **Cells**. In the **Format Cells** dialog box, in the **Number** tab, click **Date** in the **Category** list on the left. Click a format from the **Type** list on the right. Note that each format has an example showing the format. Click **OK**. Use this technique for applying the same format to all the dates or times by selecting more than one cell before clicking **Format** and then **Cells**.

Did You Know?

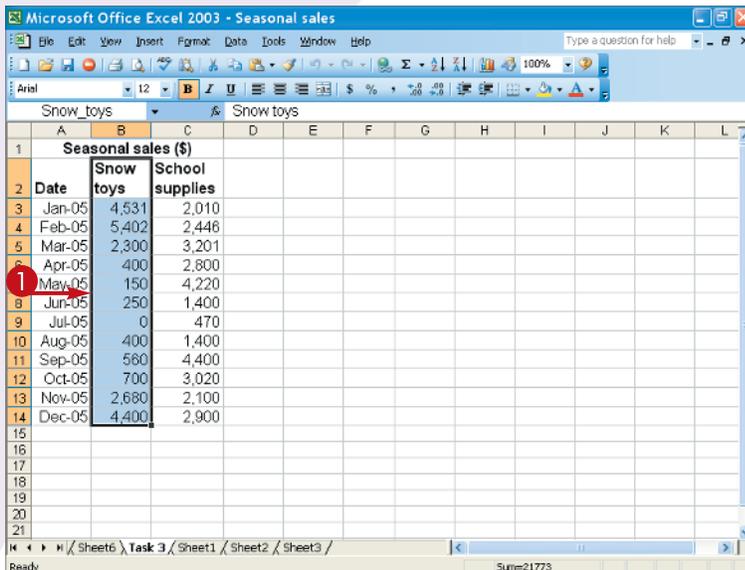
Countries differ in their standards for representing times and dates, as well as currencies and numbers. To change the default standards for your computer, open the **Regional and Language Options** control panel. Under the **Regional Options** tab, select a different country. Click **OK**.

Name CELLS AND RANGES

Excel allows you to name individual cells and groups of cells, called *ranges*. A cell named NY_Sales_Tax or a range named State_Populations is easier to remember than the corresponding cell addresses. You can use named cells and ranges directly in formulas to refer to the values contained in the cells. When you move a range to a new location, any formulas referring to the range are adjusted automatically. The cell addresses for a range change automatically if values are inserted into or removed from it.

To name a cell or range of cells, click the cell or click and drag to select the range. Open the Define Name dialog box. Enter a name in the first field and click OK.

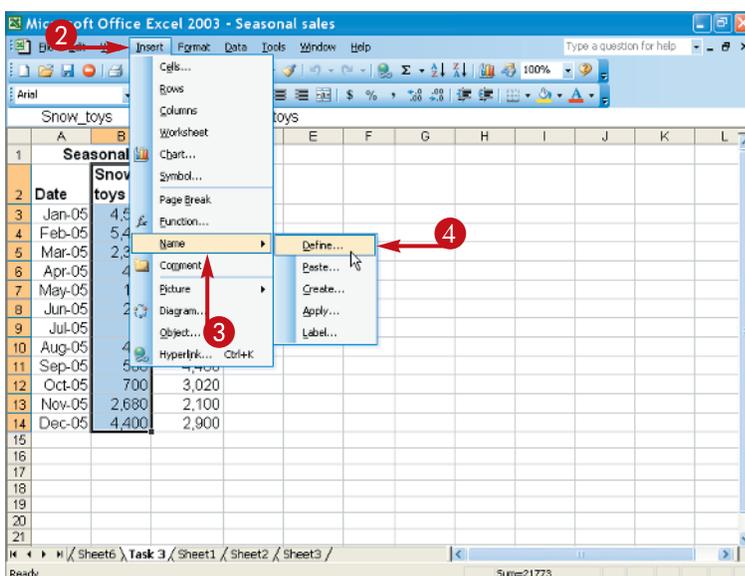
Use short, memorable names when possible. Excel range names must be fewer than 255 characters. The first character must be a letter. Spaces and symbols are not allowed, except the period and underscore. To use a name, see Task #18.



NAME A RANGE OF CELLS

- 1 Click and drag to select the cells you want to include in the range.

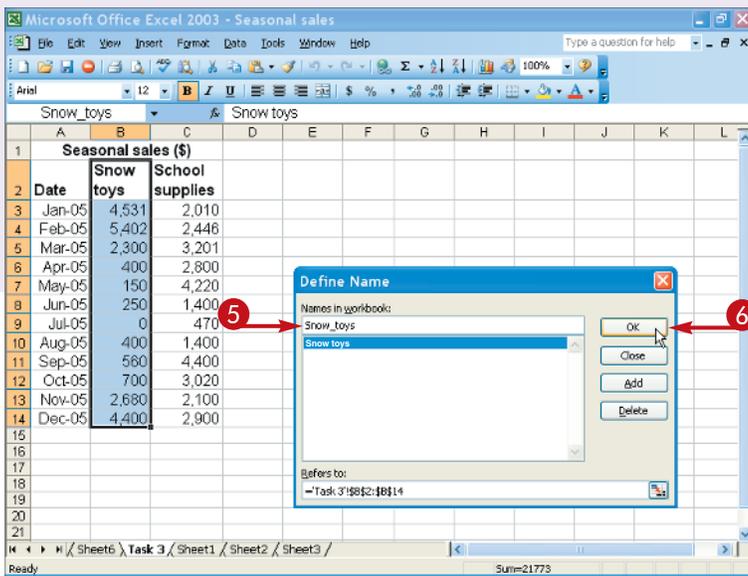
You can alternatively click a cell with a value to create a named cell.



- 2 Click Insert.
- 3 Click Name.
- 4 Click Define.

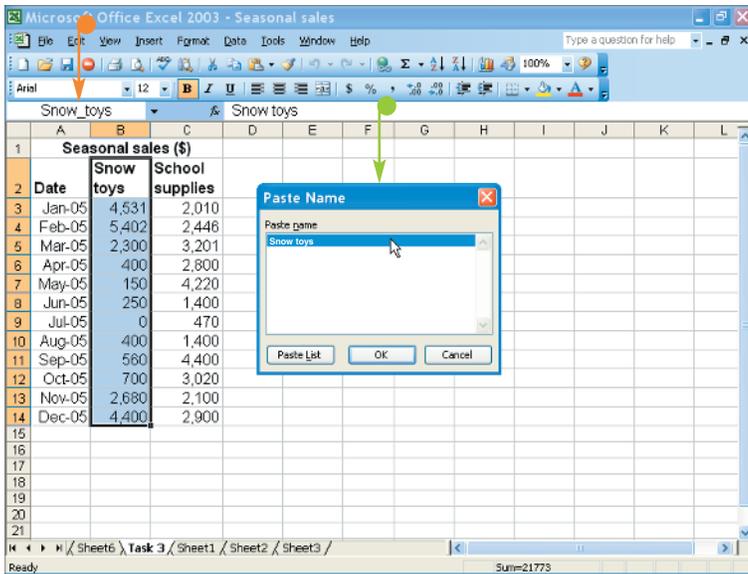
#3

DIFFICULTY LEVEL



The Define Name dialog box appears.

- 5 Type a name for the range.
- 6 Click OK.



- The defined name is now available from the Names box.
- It is also available in the Paste Name box (click Insert, Define, and Paste).

TIPS

Did You Know?

To copy a range anywhere, highlight the range, right-click and select Copy. Then click the first cell of the new location, right-click and select Paste. To move a range, select Cut instead of Copy.

Did You Know?

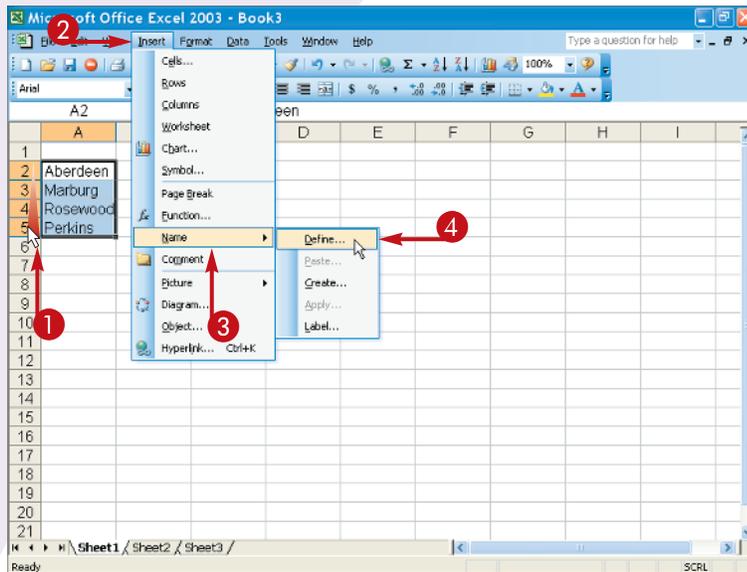
To name several cells or ranges, click the first cell or range you want to name and then click Insert, Name, and Define. In the dialog box, name the range in the first field and then click Add. To select the next cell or range to name, type its name into the Names in the workbook field. Click the button to the right of Refers to, and then click the cell to name. Click Add. Repeat for each cell or range name you want to add. When you are finished, click OK.

Validate data entry using a PICK LIST

Excel enables you to restrict the values you can enter into certain cells. By restricting values, you ensure that your worksheet entries are valid, increasing the likelihood that calculations based on them are also valid. Remember that inaccurate sales data can result in incorrect reports and faulty planning.

Creating a *pick list* restricts the entries that you can enter into a cell. During data entry, a pick list forces you or someone using your workbook to click a value from a drop-down menu rather than typing it — and potentially typing it wrong. Pick lists save time and reduce errors.

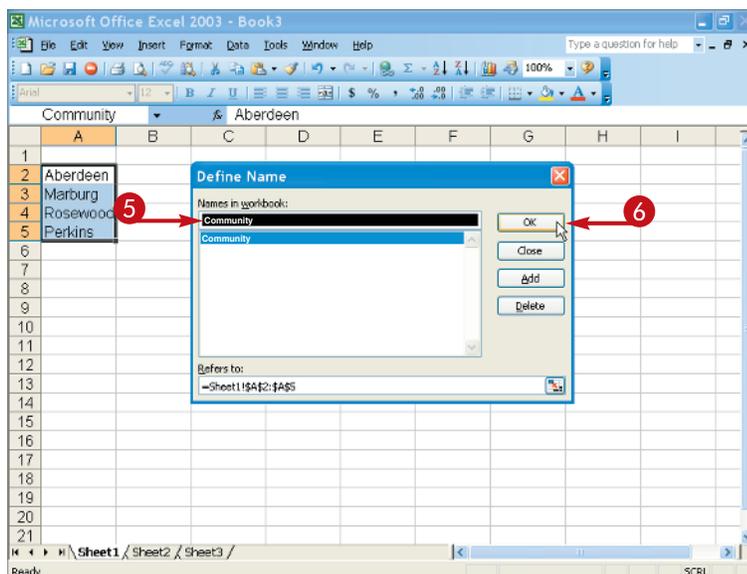
Another type of validation does not restrict entries to specific values but instead ensures that information has the correct format, whole number or decimal, or falls within a range of values that you define as acceptable. For this type of validation, you can provide instructions to users about what to type; the instructions appear when the cell is selected. Similarly, you can create an error message that appears after a value has been entered.



CREATE A PICK LIST

Before creating a pick list, type the values you want in the pick list into adjacent cells in a column.

- 1 Click and drag to select the list.
- 2 Click Insert.
- 3 Click Name.
- 4 Click Define.



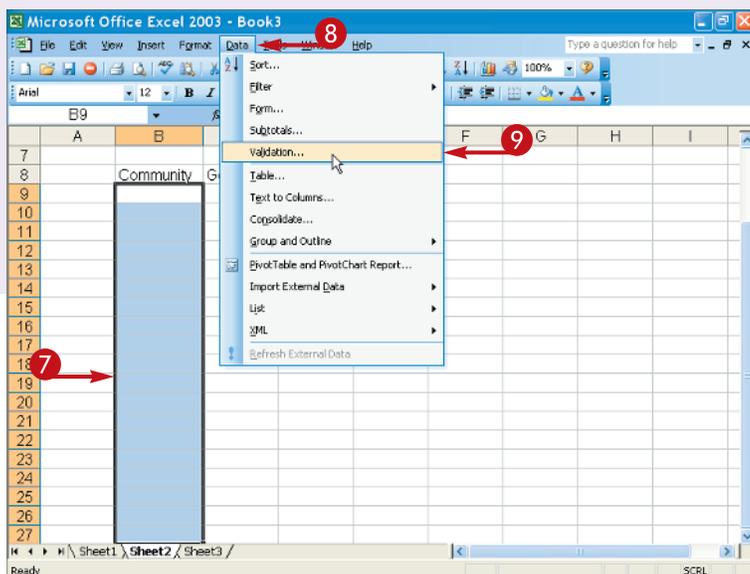
The Define Name dialog box appears.

- 5 Type a name for the list.
- 6 Click OK.

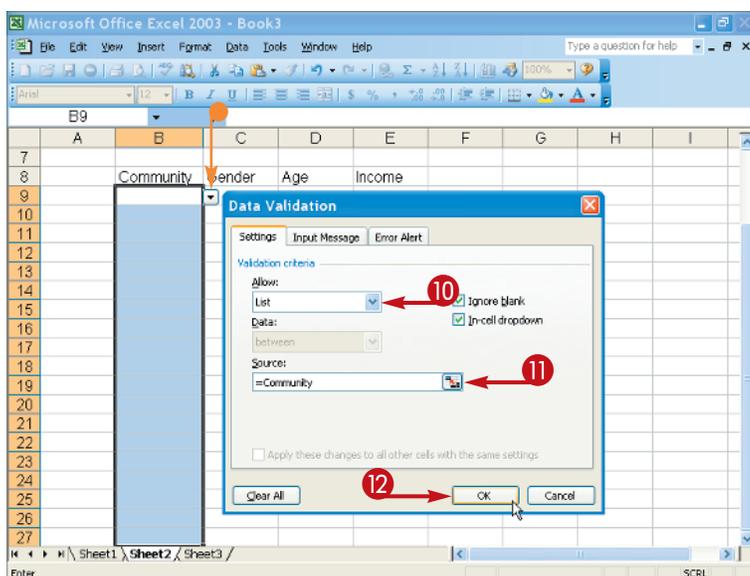
Repeat steps 1 to 5 for each pick list.

#4

DIFFICULTY LEVEL



- 7 Click the empty cells requiring the pick list.
- 8 Click Data.
- 9 Click Validation.



- The Data Validation dialog box opens.
- 10 Click List.
- 11 Type = and the name defined in step 5.
- 12 Click OK.

- A drop-down list appears to the right of each cell selected in step 7.

To enter data in a cell, click the drop-down menu and click a value.

TIPS

Did You Know?

You can use the same pick list with different columns in a worksheet. You can also create different pick lists within a column. You can even create input messages without pick lists, to provide tips for data entry without constraining the user's choices.

Did You Know?

Pick lists need not consist of numbers. You can create a pick list consisting of the names of regions, employees, products, and so on.

Did You Know?

To remove the validation drop-down list, click any cell with the settings to remove, then click Edit and Go To. In the Go To dialog box, click the Special button. In the Go To Special dialog box, select Validation and then Same below it. Click OK. From the menu, click Data and then Validation. In the Data Validation dialog box, click Clear All and OK.

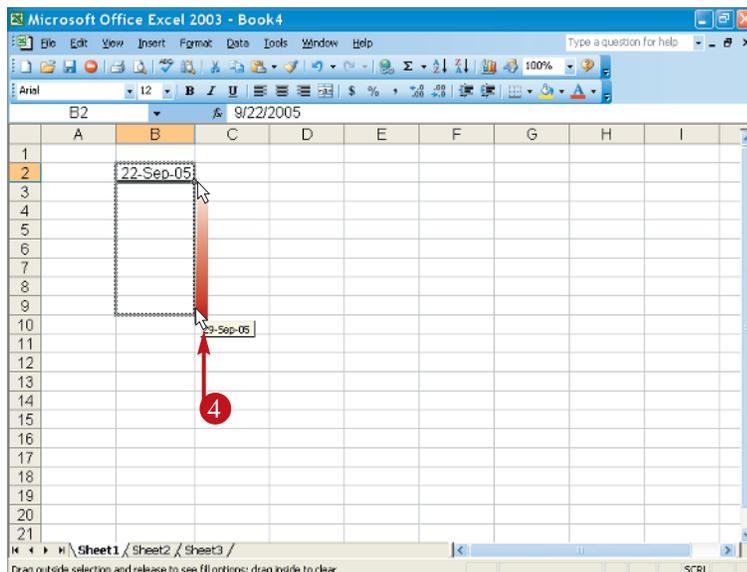
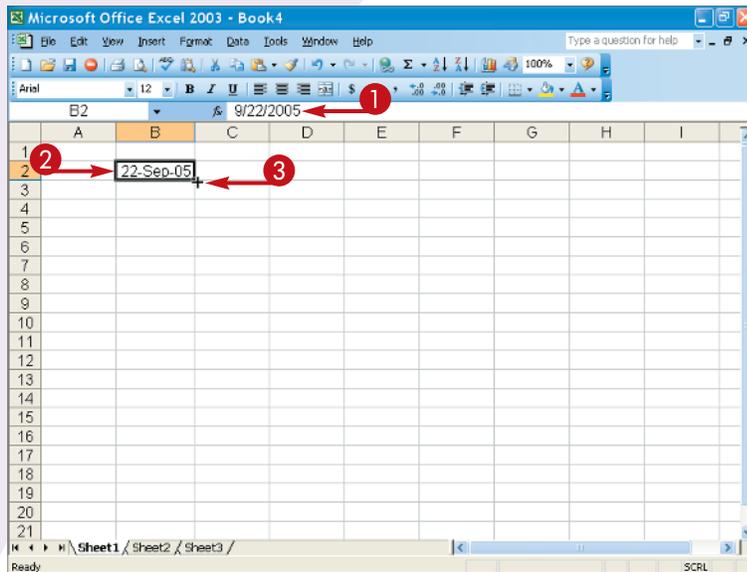
Extend a series of dates with AUTOFILL

Autofill gives you a way of ensuring accurate data entry when a particular data series has an intrinsic order: days of the week, a data series with increments of .2, and so on.

Using AutoFill requires that you first type one or more values from which to generate other values. First, click the cell you want to extend. Selecting two or more cells determines the step size, or increment, by which you want to jump in each cell. With the cell selected, click the Fill handle in the lower-right corner. With the handle selected, your cursor appears like a cross. When several cells are selected, the fill

handle appears in the lower right of the last cell in the range. Drag the Fill handle to extend the series.

When you release the mouse button, Excel fills in the cell values. If it is unclear how to extend the series, Excel provides a menu icon, which you click to select fill series, fill weekdays, or whatever is appropriate in your case. A context menu pops up to let you select whether to copy the values, fill the series one day at a time, or extend it by weekdays, months, or years. You can copy or extend your data with or without formatting.



EXTEND A DATE

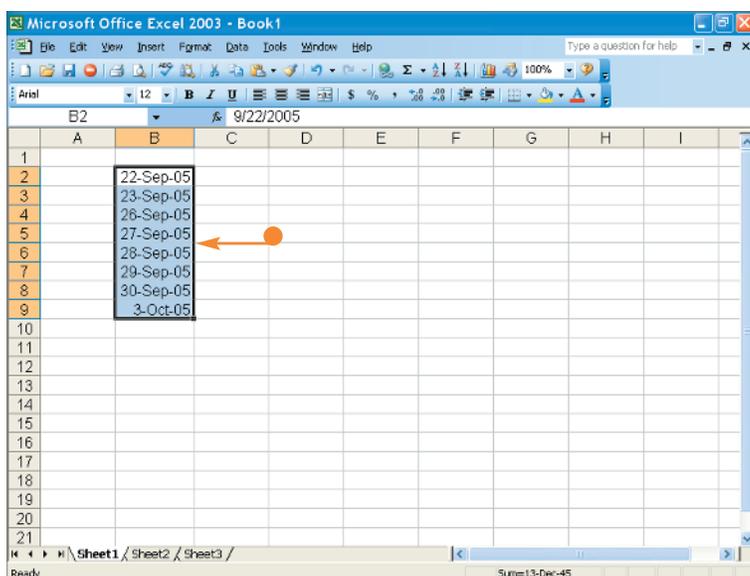
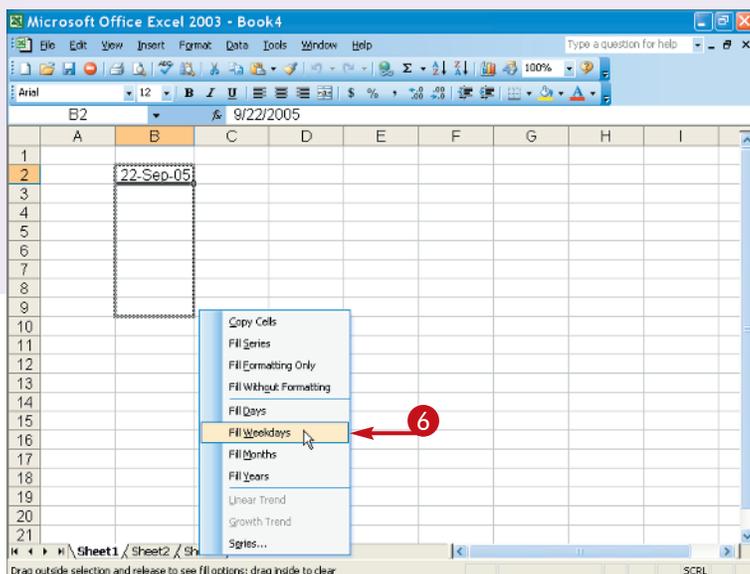
- 1 Type a date.
Note: To enter a date, see Task #2.
- 2 Right-click the cell.
You can also left-click.
- 3 Click the Fill handle (⤵ changes to +).

- 4 Drag the cell to include your desired number of cells.
- 5 Release the mouse button.

#5

DIFFICULTY LEVEL

- A menu appears.
- 6 Click your menu choice.



- The extended series reflects the choice.
- To format an extended date series, click the cells, right-click, click Format Cells, click Date, and apply a format. Click OK.

TIPS

Did You Know?

When you right-click to extend a time, you can click Series to increment the series an hour at a time. To extend a series by a custom interval, type any number in the Step value of the Series dialog box. Then click OK.

Did You Know?

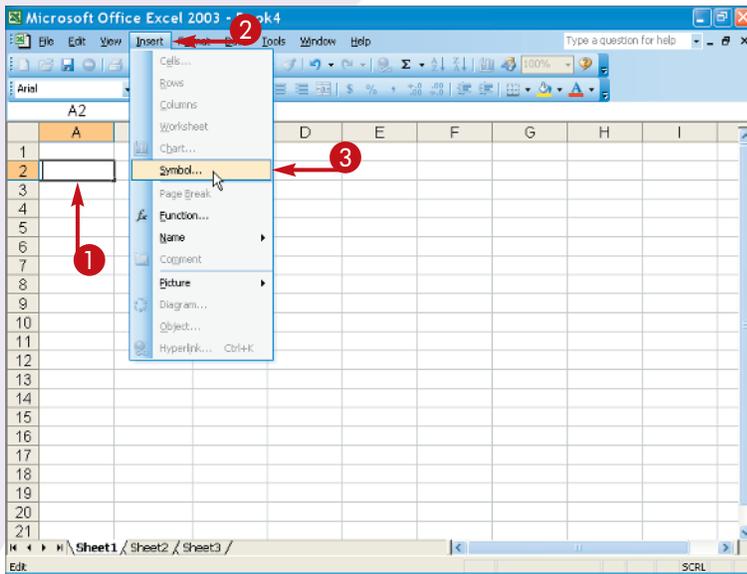
When you are making text entries, Excel attempts to guess, or *autocomplete*, the values of subsequent entries in adjacent cells in the same row or column. If you type **Brushes** in one cell (B2) and **Combs** in the cell immediately below (B3), typing letter C into cell B4 prompts Excel to complete the entry by filling in the letters **omb**. If more than one entry begins with the same letter – Brushes and Bibs – Excel autocompletes the entry when you have finished typing the letters that the multiple entries share.

Add a SYMBOL OR SPECIAL CHARACTER

In Excel, you are not restricted to the standard numerals, letters, and punctuation marks on your keyboard. You can also select from hundreds of *special characters* such as foreign letters, and currency characters such as the Euro (€). Each font has a different set of special characters. A smaller set of standard characters, called *symbols*, is always available as well, including dashes, hyphens, and quotation marks. Symbols and special characters serve many uses in Excel. Many financial applications, for example, call for currency symbols. Symbols and special characters are

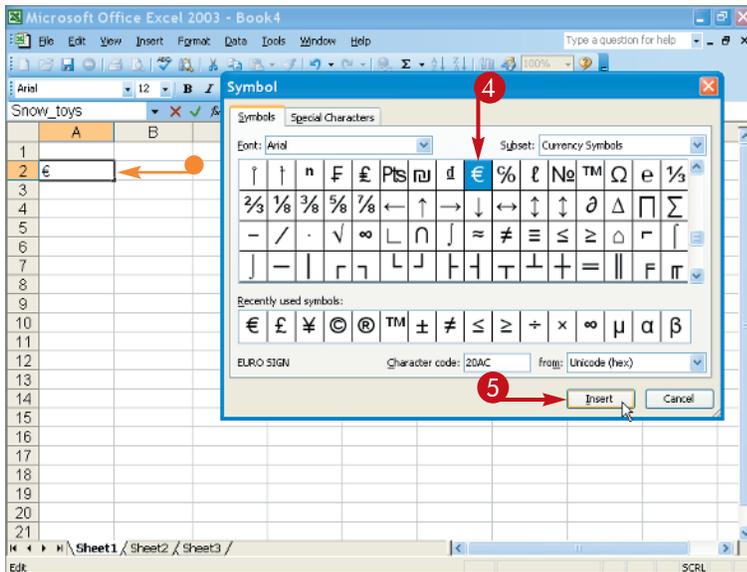
useful in column and row heads, as part of the text describing column and row content, for example, Net sales in €.

Using symbols and special characters in the same cell with a value like number, date, and time usually prevents the value from being used in a formula. You cannot, for example, add €100 and €100. However, including (*in €*) in the row or column head makes it unnecessary to include the currency symbol with a particular value.



ADD A SYMBOL

- 1 Click the cell in which you want to insert a character.
- 2 Click Insert.
- 3 Click Symbol.

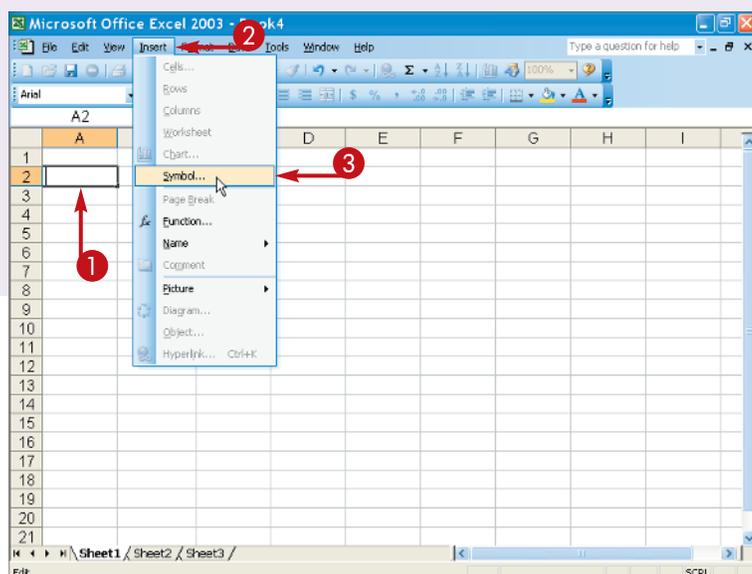


The Symbol dialog box appears.

- 4 To insert a symbol, locate the character and click it.
- 5 Click Insert.
- The character appears in the cell.

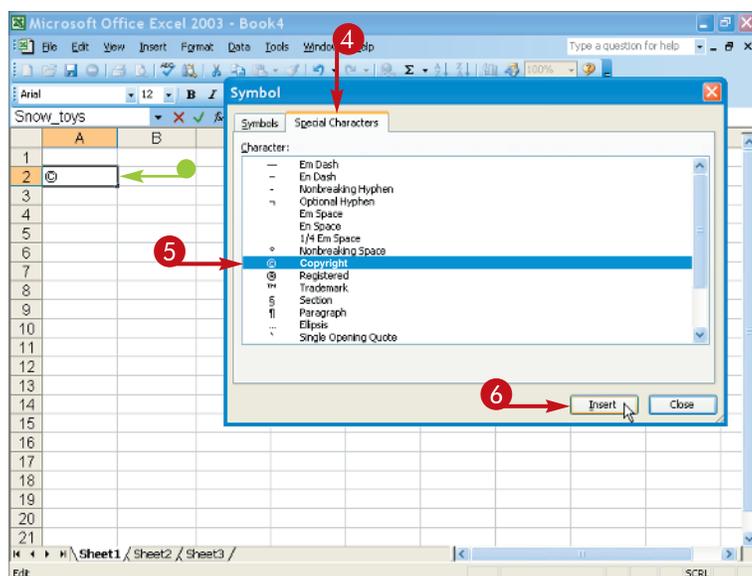
#6

DIFFICULTY LEVEL



ADD A SPECIAL CHARACTER

- 1 Click the cell in which you want to insert a character.
- 2 Click Insert.
- 3 Click Symbol.



The Symbol dialog box appears.

- 4 Click the Special Characters tab.
 - 5 Locate the character and click it.
 - 6 Click Insert.
- The character appears in the cell.

TIPS

Did You Know?

In Excel, numbers, dates, and times are by default right-aligned. Ordinary letters and special characters are left-aligned. Only right-aligned values can be used in numeric calculations. Left-aligned values are treated as blanks – zeroes – in calculations. To have a currency symbol appear with a value, as in \$400, such that the cell value can be used in a calculation, click Format and Cells and then apply the currency or accounting format to the cells. For more about formatting currencies, see Task #71.

Did You Know?

Excel fonts are based on *Unicode*, a set of 40,000 characters enabling the display of unique characters from approximately 80 languages, including right-to-left alphabets like Hebrew. To use a language other than English and set up an appropriate keyboard, click the Windows Start Menu, click Control Panel, and click Regional and Language Options. Use the Regional tab to choose another language and the Languages tab to set up the keyboard. Some Asian languages require that you download special fonts.

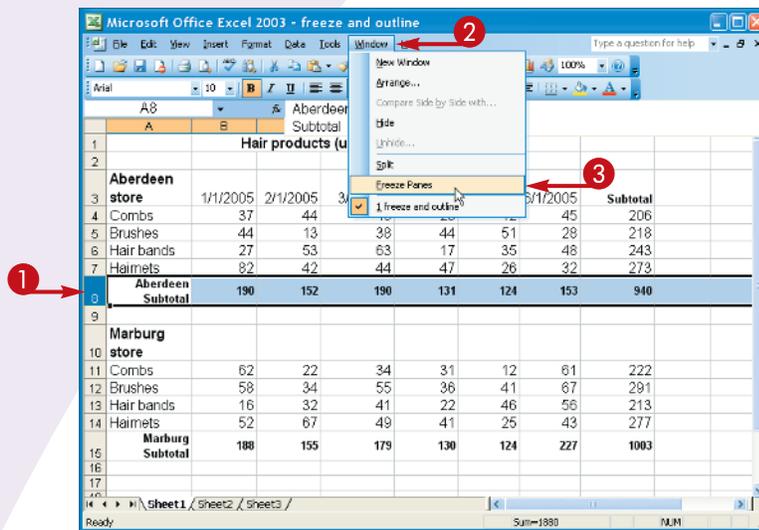
Compare multiple spreadsheets using FREEZE PANES

When your rows or columns get long, it becomes difficult to see all entries without scrolling the worksheet. Excel enables you to *freeze* one of two rows or columns that cannot display in the same screen for comparing. You can then drag the second window next to it, enabling you to compare the two.

The simplest way of doing this is to select the column or row with the data you want to compare and freeze it by clicking Window, Freeze Pane. A black line represents the border between the frozen and

non-frozen parts. To compare the frozen row with another row, you drag the other border of the row toward the black line. To drag a border, click the line separating one row number and another and drag it.

Excel offers an alternative way of comparing parts of a screen that does not involve freezing. By clicking and dragging the Split box at the top of the right-hand scroll bar, you can divide a worksheet into two halves, each of which you can scroll separately.



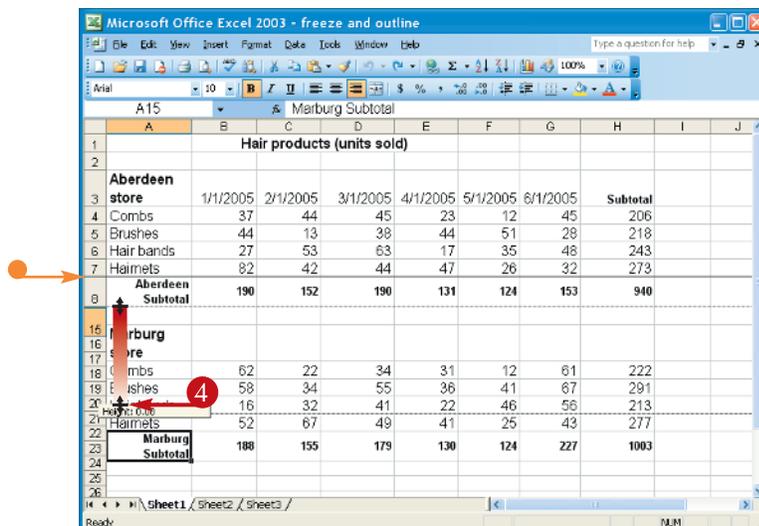
FREEZE A ROW

- 1 Click the number of the row on the far left to highlight the row for freezing.

You can also select a row by clicking a cell and pressing Shift+Spacebar.

- 2 Click Window.
- 3 Click Freeze Panes.

Alternatively, you can click and drag the Split box to divide the worksheet into two separately scrollable parts. For more information on splitting, see Task #100.



- A black line defines the border between the frozen pane and the rest of the worksheet.
- 4 To drag a row to the black line, click the border between two row numbers on the far left and drag the border toward the black line.

#7

DIFFICULTY LEVEL

You can now compare the rows.

- Notice the gap in row numbering. Several rows are temporarily hidden.

Rows on either side of the line can be dragged to the line and compared there.

	A	B	C	D	E	F	G	H	I	J
1	Hair products (units sold)									
2										
3	Aberdeen store	1/1/2005	2/1/2005	3/1/2005	4/1/2005	5/1/2005	6/1/2005	Subtotal		
4	Combs	37	44	45	23	12	45	206		
5	Brushes	44	13	38	44	51	28	218		
6	Hair bands	27	53	63	17	35	48	243		
7	Hairnets	82	42	44	47	26	32	273		
8	Aberdeen Subtotal	190	152	190	131	124	153	940		
15	Marburg Subtotal	188	155	179	130	124	227	1003		

	A	B	C	D	E	F	G	H	I	J		
1	Hair products (u											
2												
3	Aberdeen	1/1/2005	2/1/2005	3	3/1/2005	4	4/1/2005	5	5/1/2005	6	6/1/2005	Subtotal
4	Combs	37	44	3	45	23	12	45	206			
5	Brushes	44	13	38	44	51	28	218				
6	Hair bands	27	53	63	17	35	48	243				
7	Hairnets	82	42	44	47	26	32	273				
8	Aberdeen Subtotal	190	152	190	131	124	153	940				
15	Marburg Subtotal	188	155	179	130	124	227	1003				

- 5 To remove the black line and unfreeze the panes, click Window.

- 6 Click Unfreeze Panes.

TIPS

Did You Know?

You can hide an entire worksheet by clicking Window and then Hide.

Did You Know?

Unfreezing a worksheet does not always restore the previous view of your spreadsheet. To redisplay rows, click Window and then Unfreeze. Select the entire worksheet by clicking Ctrl+A or clicking in the cell to the left of the A at the very top of the worksheet. Carefully click and drag one of the row's borders, for example, separating 1 and 2 in the column on the far right. All rows assume the height of the row whose border you dragged.

Did You Know?

Outlining provides another way to compare non-adjacent parts of a worksheet, as shown in Task #8. Both work especially well with lists, a type of worksheet discussed in Chapter 4. Sorting a list allows you to display rows in subgroups that share an attribute, for example, all rows for people who live within a certain community. With lists, you can perform a calculation for a subgroup and then compare subgroups using freezing and outlining.

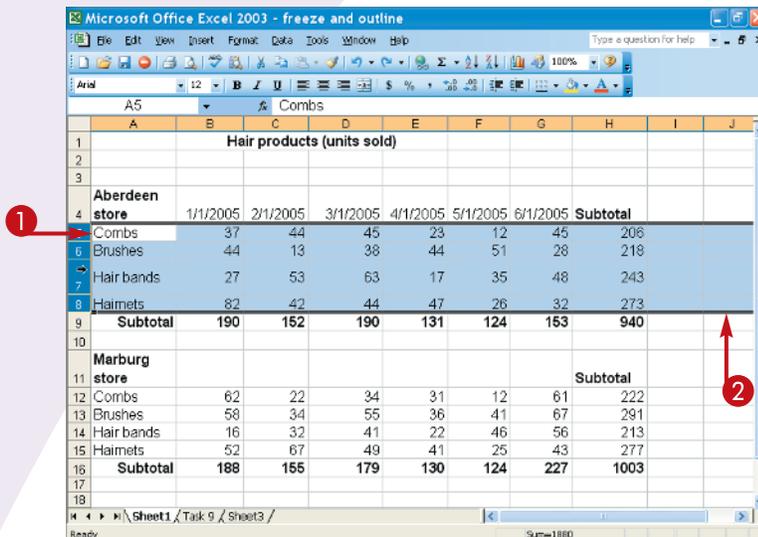
Hide rows to compare data with OUTLINING

You can use the Excel Outline feature to temporarily hide a set of rows. For example, you can hide the details relating to weekly sales in order to compare monthly sales. With outlining, you can hide several sets of rows, and compare more than two rows. You can apply outlining to columns as well as rows, but hiding rows is more common.

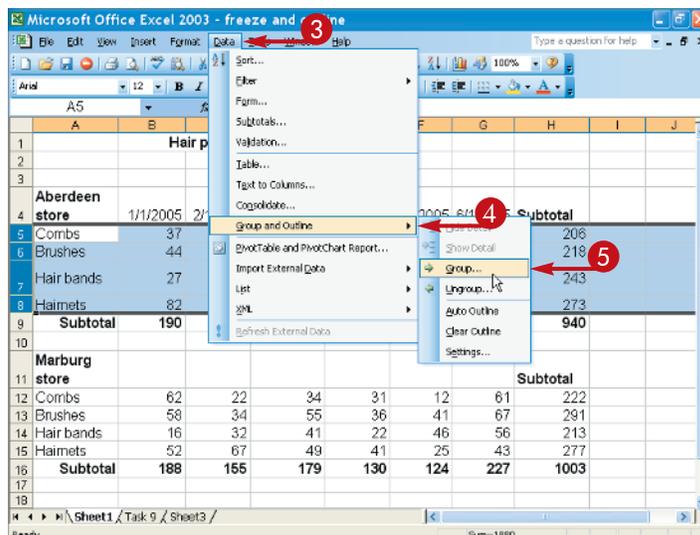
Outlining a set of rows creates a clickable button on the far left of the worksheet. The button displays either a Minus sign or a Plus sign, depending on what is displayed in the worksheet. You can click the Minus

sign to hide rows or columns and the Plus sign to display them again. Adjacent to the button is a solid vertical line that indicates, by its length, the scope of the hidden details and the approximate number of rows or columns hidden.

Outlining was designed for use with structured information called lists, but can be used with any worksheet. When you outline a PivotTable, outlining has the same effect as in an ordinary worksheet, as shown in Task #54.



- 1 Position the mouse cursor on the first row of the set of rows to hide.
- 2 Click and drag to select the other rows to hide.

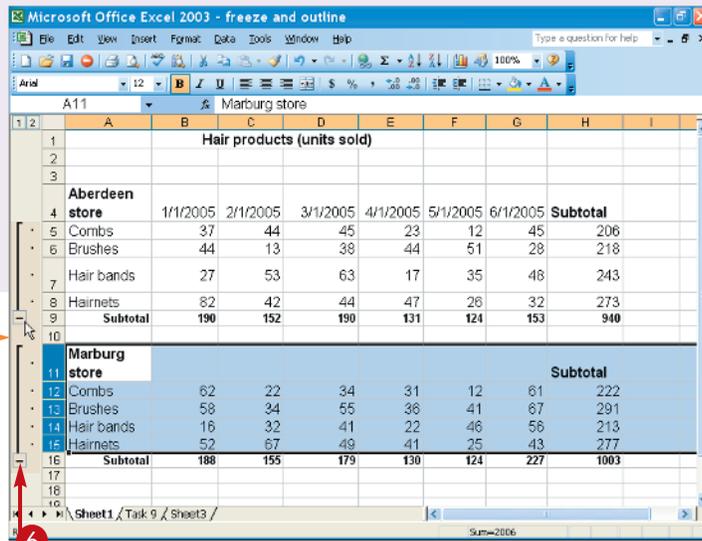


- 3 Click Data.
- 4 Click Group and Outline.
- 5 Click Group.

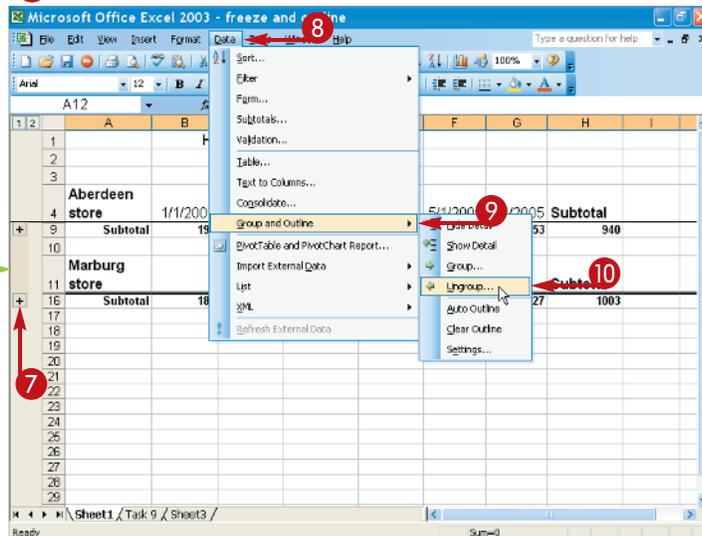
You can also select the rows and press Shift+Alt+Right Arrow.

You can repeat steps 1 to 4 to hide other rows or columns.

8



- Excel creates a new left margin with a Minus sign that you click to hide the rows.
- 6 To hide the rows, click the Minus sign.



- The rows disappear and the Plus sign replaces the Minus sign.
- To display the rows again, click the Plus sign.
- 7 To remove an outline, display it by clicking the Plus sign.
- 8 Click Data.
- 9 Click Group and Outline.
- 10 Click Ungroup.

TIPS

Did You Know?

You can *nest* outlines with one group of outlined rows contained within another. You can outline each product, and then hide certain rows to compare the others. Or, you could hide all of the products and just compare the product subtotals.

Did You Know?

You can compare data by freezing panes. This method provides a quick way to compare different parts of a worksheet but is more cumbersome to remove. For more about freezing panes, see Task #7.

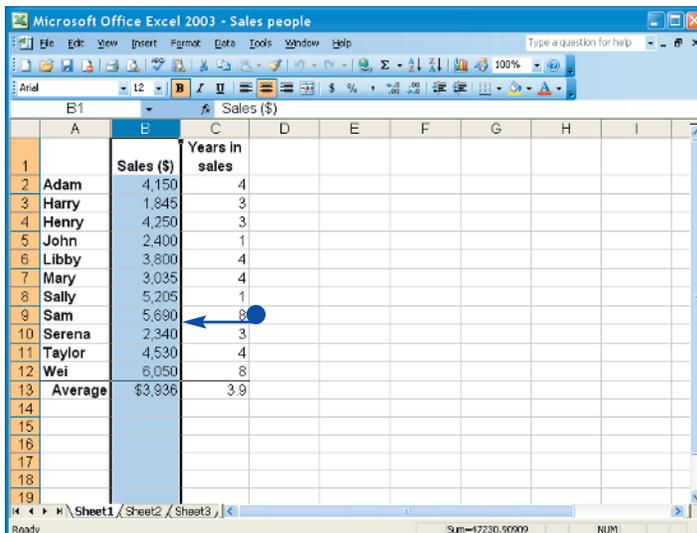
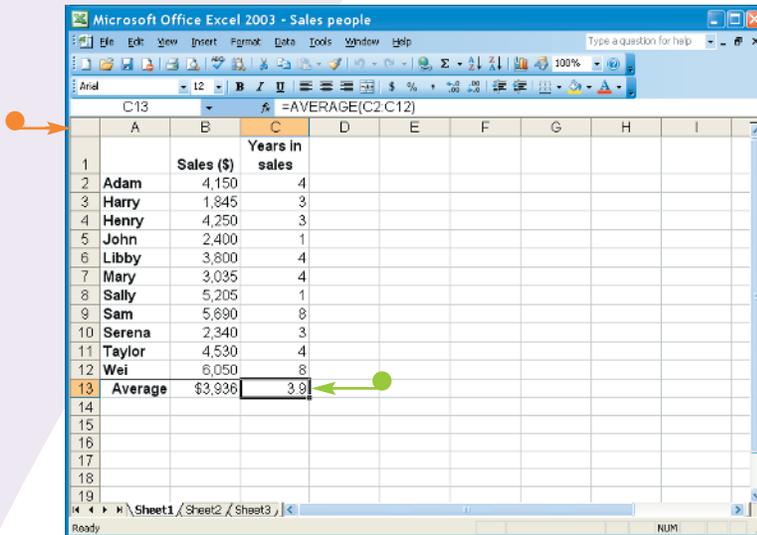
Access Excel by KEYBOARD

If you have a visual impairment, it can be difficult to see the mouse cursor and view the visual feedback that results from mouse clicks. Fortunately, you can interact with Excel in many ways, not just by a mouse. You can use keyboard alternatives to perform common mouse actions. Everyone potentially benefits from accessibility options. Even non-impaired users find keyboard alternatives faster than using the mouse.

Keyboard alternatives apply to the basic actions of moving the cursor, making menu choices, and

entering data. In addition, you can accomplish many specific tasks by keyboard. For example, to generate a chart based on a worksheet where the cursor arrow is positioned, press F11. To outline rows, select the rows and press Shift+Alt+Right Arrow.

To find out more about Office accessibility features, press F1 and type **accessibility** in the Search field of the task pane. For another accessibility technique, speech recognition, see Task #10.



SELECT CELLS

To select an entire worksheet, press Ctrl+A.

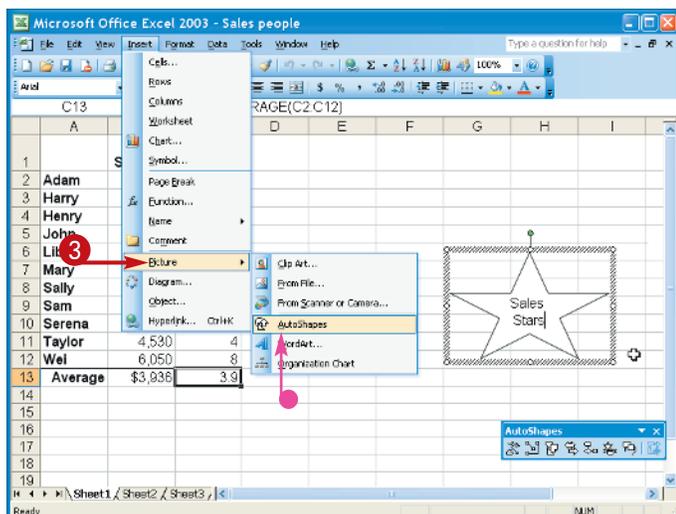
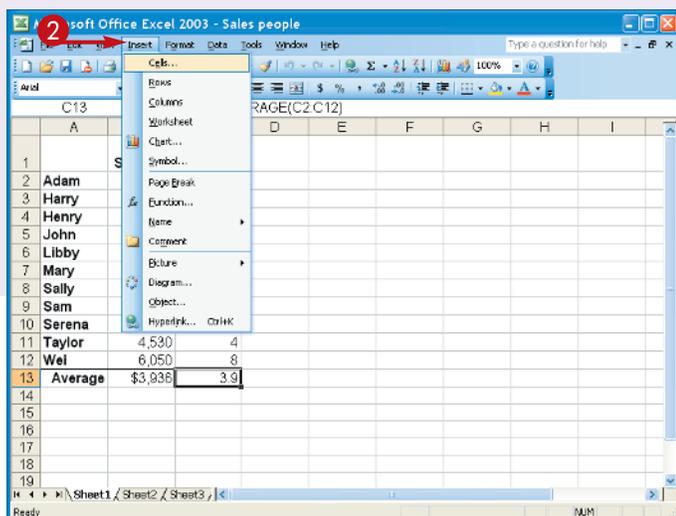
- To highlight the worksheet using the mouse, click the cell in the uppermost left corner.
- To select a cell, use the arrow keys to move to it.

To select a row, use the arrow keys to move to the first cell in the row and press Ctrl+Shift and the right arrow several times.

- To select a column, use the arrow keys to move to a cell in the row and press Ctrl+Shift and the down arrow several times.

SELECT FROM MENU

- 1 Press Alt.
- 2 Press the underscored letter of the menu.



The menu appears.

- 3 Press the underscored letter of the menu option you want.
- If there is a submenu, press the underscored letter of the option you want.

TIP

Useful Keyboard Shortcuts

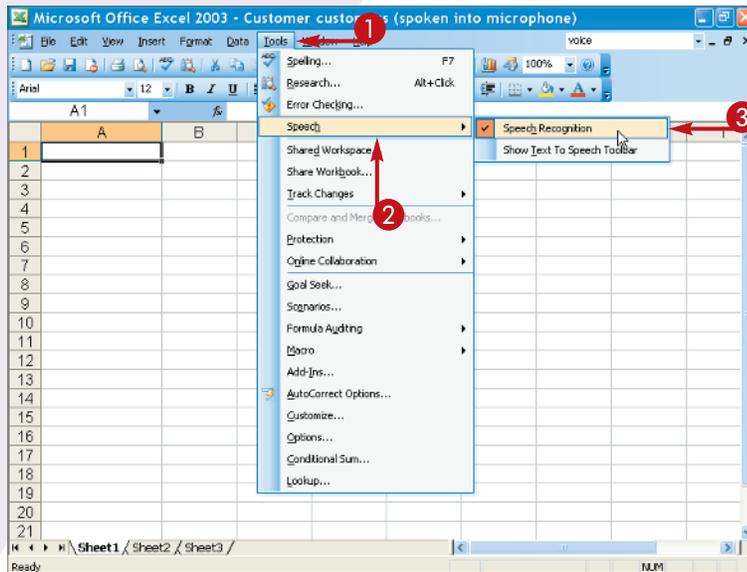
Shortcut	Function
Alt+Underscored letter of menu name	Select a menu from an Excel menu
Underscored letter of menu command	Select the menu command
Alt+Enter	Display the choices in a drop-down menu
Up- and Down-arrow keys	Select an item in a drop-down menu
Tab	Move to the next item in a dialog box
Shift+Tab	Move to the previous item
Ctrl+PageDown or PageUp	Move to the next or previous worksheet in a workbook
PageUp or PageDown	Go up or down a screen within a worksheet
Home	Jump to first cell in a row
Ctrl+Home	Jump to first cell in a sheet
End	Jump to last cell in a row
Ctrl+End	Jump to last cell in a sheet

Access Excel by voice with SPEECH RECOGNITION

Speech recognition allows visually impaired users to communicate with a computer by speaking rather than by typing at the keyboard or clicking mouse buttons. The non-impaired may prefer speech recognition because of its convenience and increasing reliability. When using speech recognition, you can also type and use the mouse at any time.

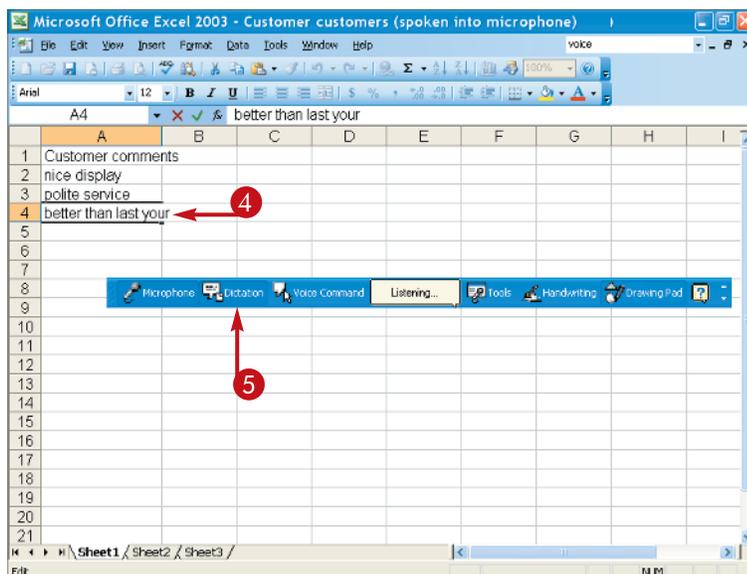
To use speech recognition, you must plug a computer microphone into the USB or audio jack in your PC. To use the microphone for data entry, you must then install speech recognition for Microsoft Office applications. For instructions, click F1, search for speech recognition, and read the article called *Install and train speech recognition*.

To train Office to recognize your voice, click the Windows Start menu, select Control Panels, and double-click Speech. In the Speech Properties box, click Configure Microphone. Read and follow the instructions. When you are finished, return to the Speech Properties box. Click Training Profile, and follow the instructions for teaching Speech Recognition to learn about your voice. You may need to read multiple passages for the software to recognize your voice. It takes considerable training and use for the software to become adept at recognizing your voice.



ENTER DATA WITH SPEECH RECOGNITION

- 1 Click Tools.
- 2 Click Speech.
- 3 Click Speech Recognition.

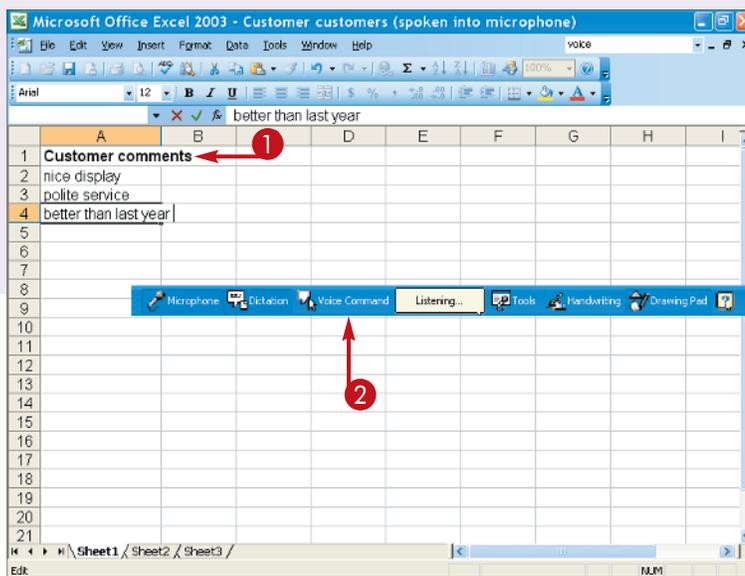


The Language toolbar appears.

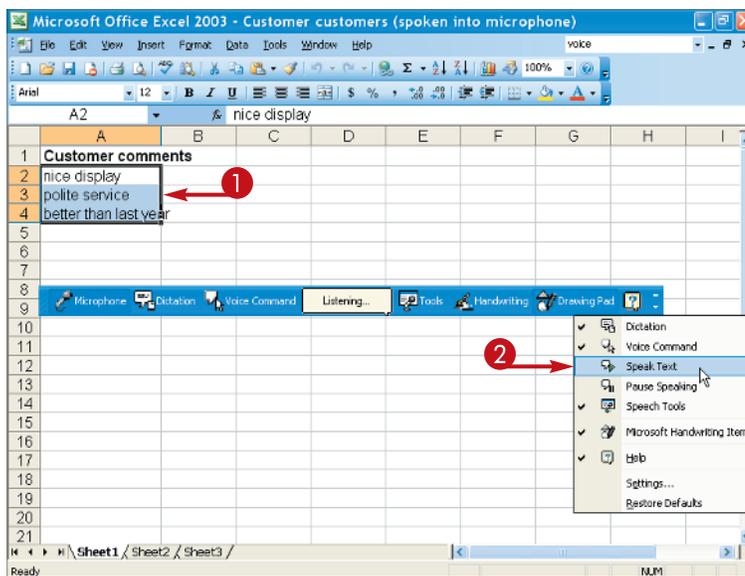
- 4 Click the first cell for data entry.
- 5 Say **dictation** or click the Dictation button.
- 6 Speak the numbers or words into the microphone.

Say **Enter**.

Repeat steps 4 to 6 for other values you want to enter.

**EDIT SPOKEN DATA**

- 1 To bold text, click the cell or say its address.
- 2 Click or say Voice Command.
- 3 Say **bold**.
- 4 To correct an error in a cell, repeat steps 1 to 2, then in step 3, say **Delete**.
- 5 Speak the numbers or words again, or type them in.

**CONVERT DATA INTO SPEECH**

- 1 To have Excel read back the values you have entered, click and drag to select them.
- 2 Click the Speak Text button and select Speak Text.

TIPS**Did You Know?**

Speech recognition has two modes, Dictation and Voice Command. Use *Dictation* to enter data or other values and *Voice Command* to use menus, menu commands, and dialog boxes. To switch between modes, you can use the Language bar, an unusual floating toolbar that becomes available when you select Tools, Speech, and then Speech Recognition. This toolbar, when minimized, appears at the bottom of your screen. To restore it, right-click it and select Restore Language Bar.

Caution!

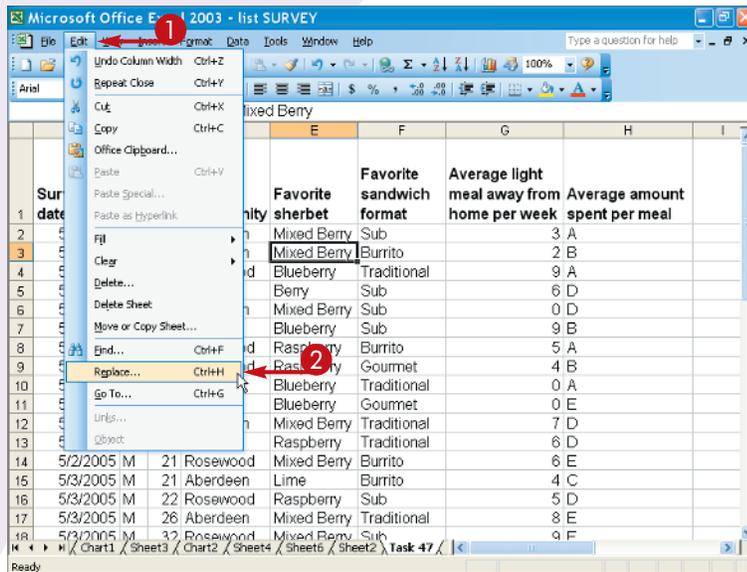
To improve the accuracy of your spoken data entry, spend extra time training the Office speech recognition tool. Using the Speech control panel, click Train Profile, read one of the passages provided, and repeat for several passages. Speak at a normal volume and consistent rate. Hold the microphone at the same distance from your mouth throughout.

FIND AND REPLACE DATA

Cells can contain numbers, text, comments, formats, and formulas. With Excel, you can search for any of these elements to view them, replace them, or perform some other action. You may, for example, find and replace values to correct mistakes, or perhaps you need to return to a value to add a comment or apply formatting.

The Excel Find and Replace dialog box is available in two ways: by clicking Edit and Find, or by pressing the Ctrl+F keys on your keyboard. The Find feature is part of Find and Replace, which is available to you by clicking Edit, Replace or pressing Ctrl+H.

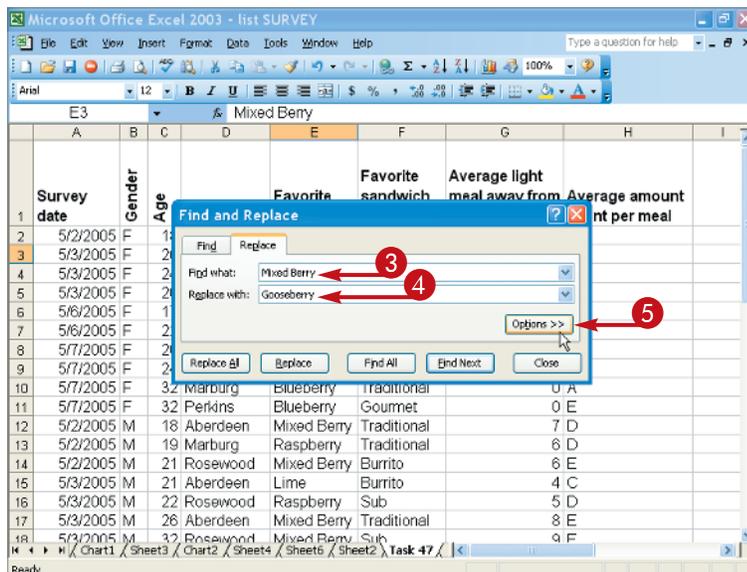
To find and replace values, you need to specify which characters you are seeking and their replacement. Click the Options button to specify additional details. Use the Within drop-down menu to indicate where to search: the current worksheet or current workbook. Use the Look in drop-down menu to indicate whether to search within a formula or within the displayed cell content. Click the Formatting button to restrict your search to characters formatted in a certain way, such as bold or percentages.



REPLACE A VALUE

- 1 Click Edit.
- 2 Click Replace.

You can alternatively press Ctrl+F to open the Find and Replace dialog box.

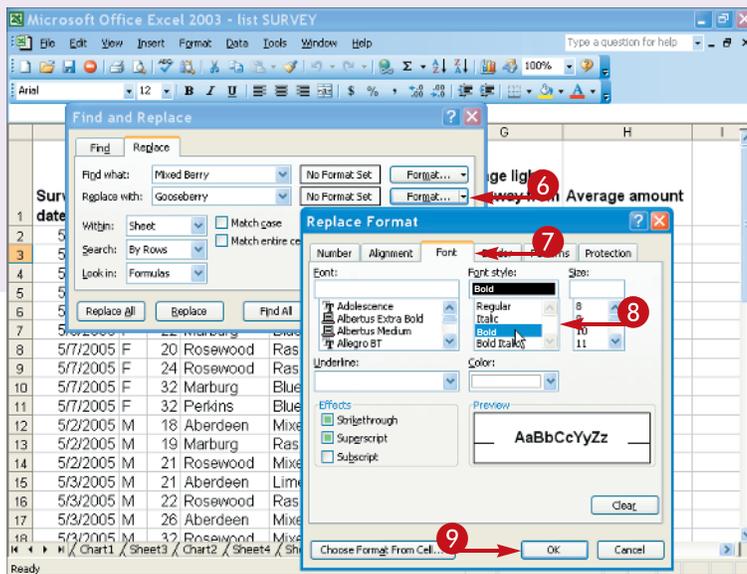


The Find and Replace dialog box appears.

- 3 Type the characters you want to change.
- 4 Type the replacement characters.
- 5 Click Options for more details.

#11

DIFFICULTY LEVEL



The expanded Find and Replace dialog box appears.

6 To search for characters formatted in a certain way, click Format.

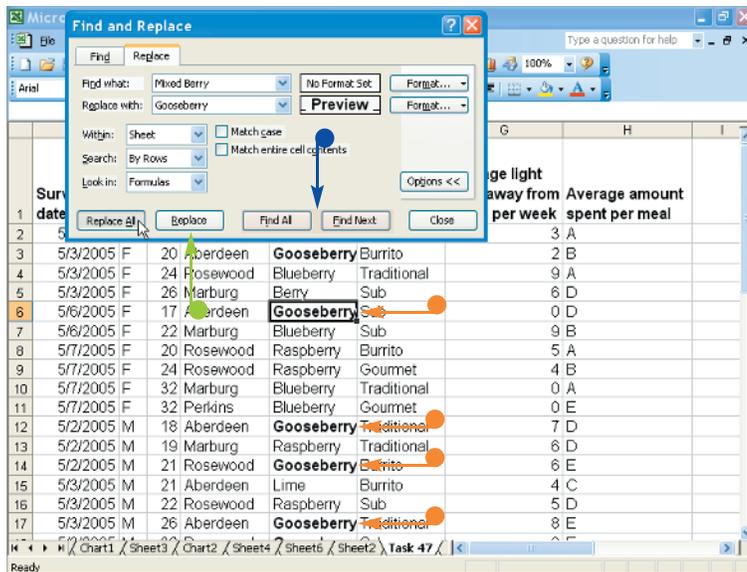
The Replace Format dialog box appears.

7 Click a tab.

8 Select your options as appropriate.

9 Click OK.

- The replacements are made.
- You can click Replace to make one change at a time.
- If you do not want to replace values, click Find All or Find Next to highlight cells in the worksheet but not replace values.



TIPS

Did You Know?

To find a value, formula, or comment in another workbook, click the Open folder on the toolbar. In the Open dialog box, click the Tools menu in the upper-right corner, and click Search. In the Search for drop-down menu, type your search text. In the Search in drop-down menu, specify which disk to search. In the Results should be drop-down menu, click the Excel check box. Click Search.

Did You Know?

The Format button has a drop-down menu that gives you the option of defining a format based on an existing cell. From the submenu, click Choose Format from Another Cell. Use the eyedropper symbol to click a cell whose format you want to apply to the cell you are seeking.

Generate a worksheet with INFOPATH

You can use InfoPath to quickly generate complex Excel worksheets. InfoPath and OneNote are new to the Office suite. Both were designed to extend the capabilities of individual Office applications such as Excel. For more about OneNote, which enables you to jot down virtually limitless notes about one or more documents, see Task #16.

InfoPath is a separate Office program. It allows designers to create and export forms to the Web or to Excel, where they automatically generate a new worksheet. InfoPath also includes numerous ready-made forms for immediate use in specific

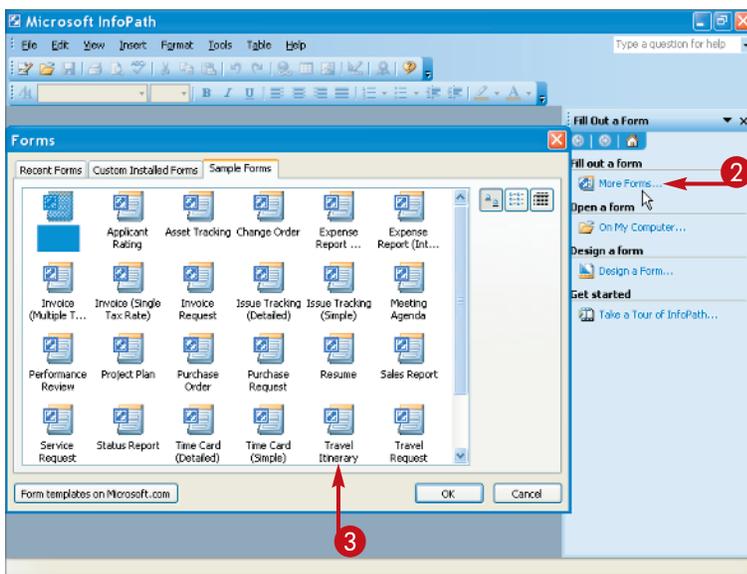
business tasks, such as expense reports, purchase orders, and sales reports. When you choose a form, you find a simple interface consisting of data entry fields, pre-filled menus, check boxes, and buttons. You fill out information one record at a time.

Values entered into InfoPath can then be exported into Excel for analysis and charting. Additional data can be supplied through the InfoPath form or within Excel, using automatically created forms. To create your own InfoPath forms, start with InfoPath Help by pressing F1.



GENERATE A WORKSHEET WITH INFOPATH

- 1 Double-click the InfoPath icon.

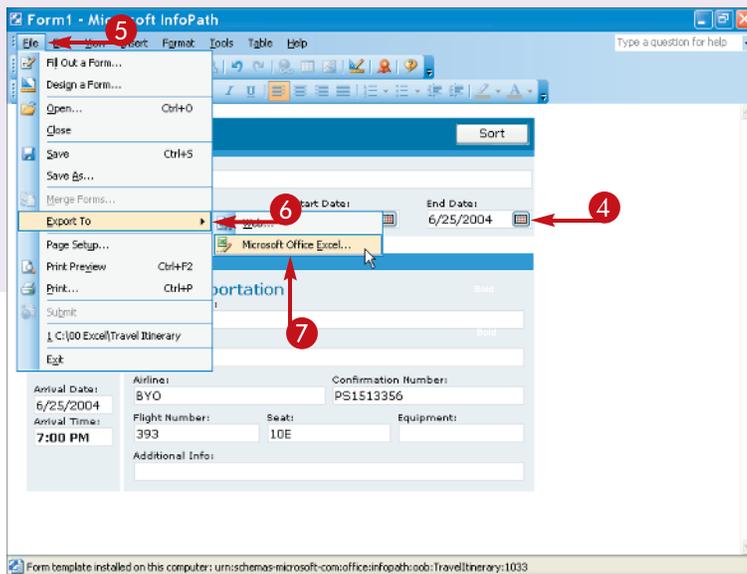


The InfoPath application appears.

- 2 To start a new form, click More Forms.

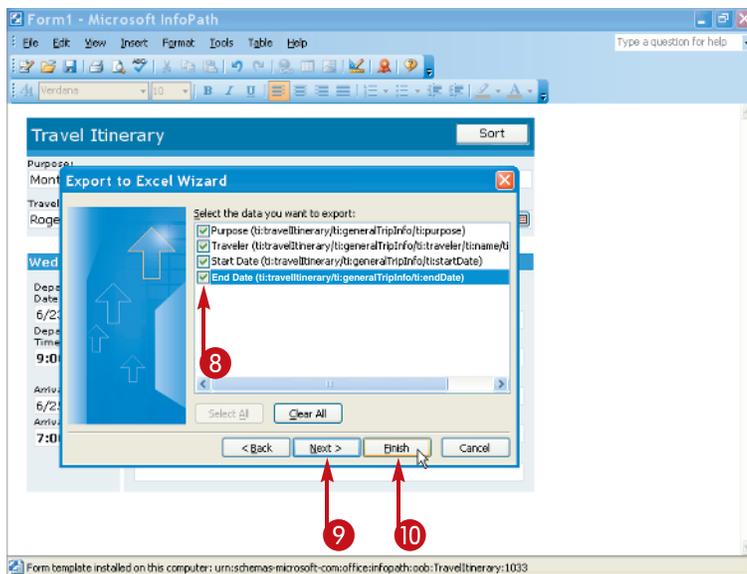
The Forms window appears, with the first item selected.

- 3 Double-click a form to open it.



The specific form appears with blank fields.

- 4 Type your values.
To select a date, click the Calendar icon and navigate to the appropriate date.
- 5 Click File.
- 6 Click Export To.
- 7 Click Microsoft Office Excel.



The Export to Excel Wizard appears.

- 8 Click to select the data you want to export.
- 9 Click Next to continue through the screen options.
- 10 Click Finish when you are done.

Excel displays a worksheet based on the form.

You will need to edit the column heads to remove the references to the InfoPath source data.

TIPS

Did You Know?

Fields and values imported from InfoPath into Excel form the basis of an Excel list. To use Excel for data entry, place your cursor in the list, click Data and then Form. For more about Excel lists, see Chapter 4.

Did You Know?

InfoPath field names appear as Excel column heads, and values entered in InfoPath appear in columns. Edit columns so that only key words appear.

Did You Know?

InfoPath simplifies date entry. In date fields, you click the Calendar button, and then click the appropriate month and day, using the Greater Than and Less Than buttons to cycle through months.