Boost Your Efficiency

You can use Microsoft Excel 2007 to work with numbers. In fact, wherever you use numbers — doing taxes, running a small business, maintaining a budget, or anything else — Excel can help make your work easier, quicker, and more accurate.

Excel 2007 provides you with many ways to enter, present, explore, and analyze data. This chapter focuses on ways in which you can boost your efficiency when using Excel. You learn how to use the Excel AutoFill feature, to group and outline, to check the accuracy of your data and more.

The AutoFill feature enables you to fill a row or column quickly with a series of values, numbers, dates, or times generated from one or more values you have entered. This chapter will show you how to use the AutoFills that come standard with Excel and how to create your own AutoFills.

You can use grouping and outlining to hide parts of your worksheet, enabling you to focus in on the data in which you are interested, thereby making data analysis easier. This chapter steps you through the process of grouping and outlining.

Sometimes you may want to double-check the accuracy of your data. One of the final tasks in this chapter teaches you how you can increase the accuracy of your data entry by letting Excel read back your data to you.

Top 100

Validate with a
VALIDATION LIST

Excel enables you to restrict the values a user can enter in a cell. By restricting values, you ensure that your worksheet entries are valid and that calculations based on them thereby are valid as well. During data entry, a validation list forces anyone using your worksheet to select a value from a drop-down menu rather than typing it and potentially typing the wrong information. In this way, validation lists save time and reduce errors.

To create a validation list, type the values you want to include into adjacent cells in a column or row. You may want to name the range. See Task #11 to learn how to name ranges. After you type your values, use the Data Validation dialog box to assign values to your validation list. Then copy and paste your validation list into the appropriate cells by using the Paste Special Validation option.

You may want to place your validation list in an out-of-the-way place on your worksheet or on a separate worksheet.
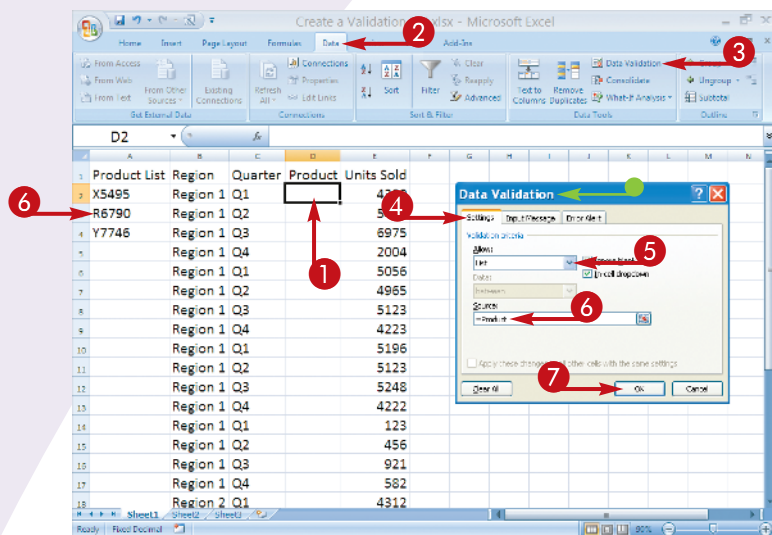
❶ Click in the cell in which you want to create a validation list.

❷ Click the Data tab.

❸ Click Data Validation in the Data Tools group.

● The Data Validation dialog box appears.

❹ Click the Settings tab.

❺ Click here and then select List.

❻ Click and drag to select the valid entries, or type = followed by the range name.

❼ Click OK.
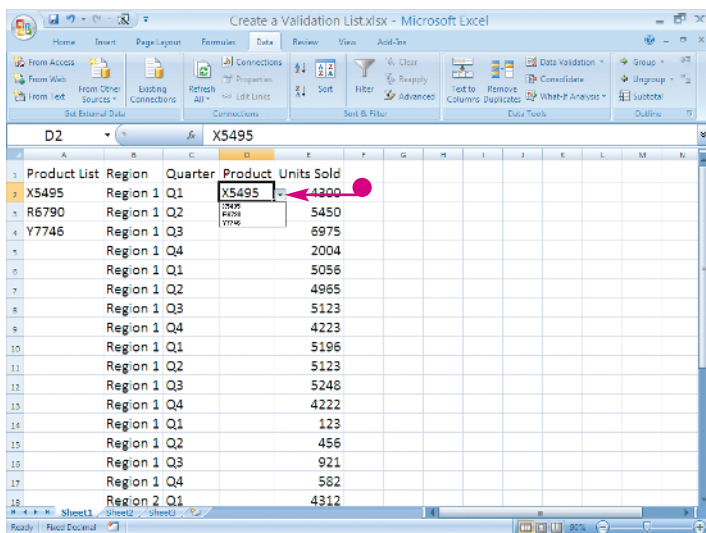
● Excel creates a validation list in the cell you selected.

PASTE YOUR VALIDATION LIST

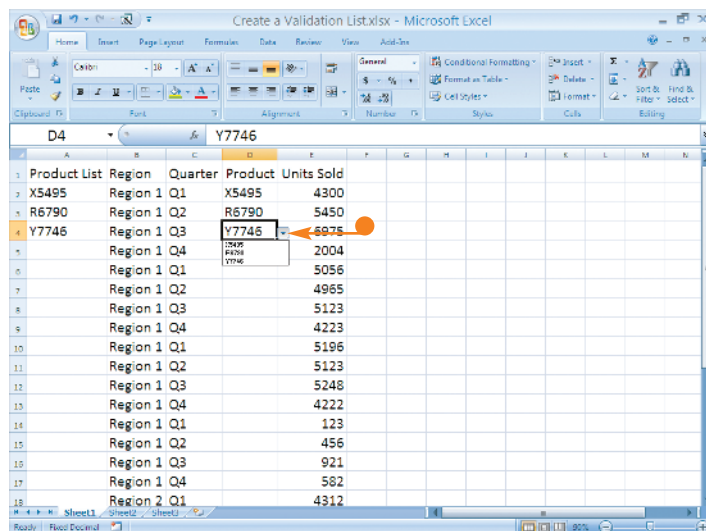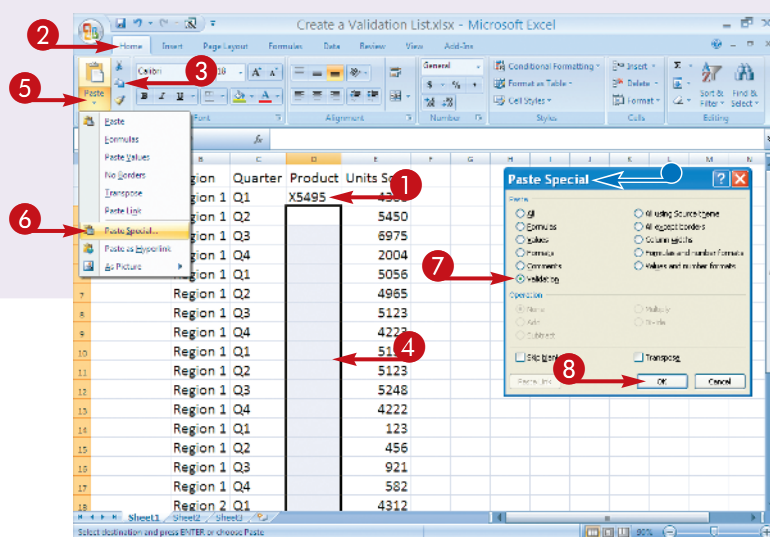1. Click in the cell that contains your validation list.

2. Click the Home tab.

3. Click the Copy button in the Clipboard group.

4. Select the cells in which you want to place the validation list.

5. Click Paste in the Clipboard group.

   A menu appears.

6. Click Paste Special.

● The Paste Special dialog box appears.

7. Click Validation (○ changes to ◉).

8. Click OK.

   Excel places the validation list in the cells you selected.

● When users make an entry into the cell, they must pick from the list.

DIFFICULTY LEVEL

TIPS

Did You Know?
Validation lists can consist of numbers, names of regions, employees, products, and so on.

Remove It!
To remove a validation list, click in any cell that contains the validation list you want to remove, click the Home tab, and then click Find and Select in the Editing group. A menu appears. Click Go To Special. The Go To Special dialog box appears. Click Data validation, click Same, and then click OK. The Go To Special dialog box closes. Click the Data tab and then click Data Validation in the Data Tools group. A menu appears. Click Data Validation. The Data Validation dialog box appears. Click Clear All and then click OK.
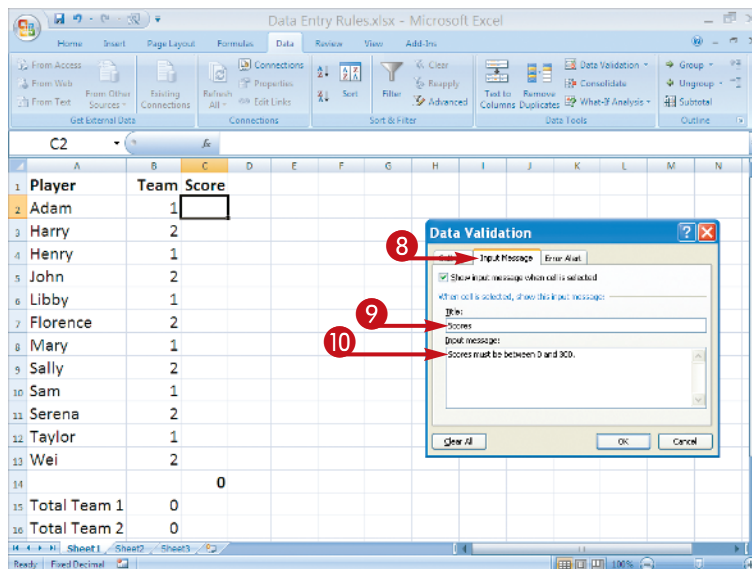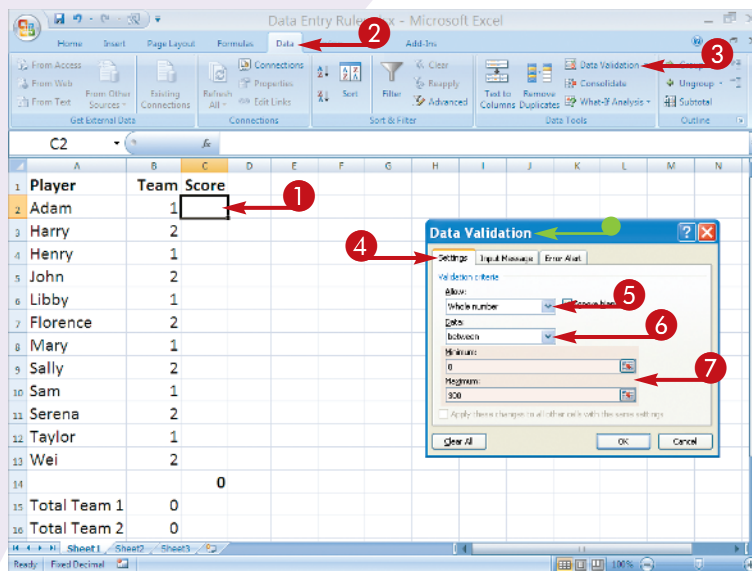
Validate with
DATA ENTRY RULES

You can use data entry rules to ensure that data entered has the correct format, and you can restrict the data entered to whole numbers, decimals, dates, times, or a specific text length. You can also specify whether the values need to be between, not between, equal to, not equal to, greater than, less than, greater than or equal to, or less than or equal to the values you specify.

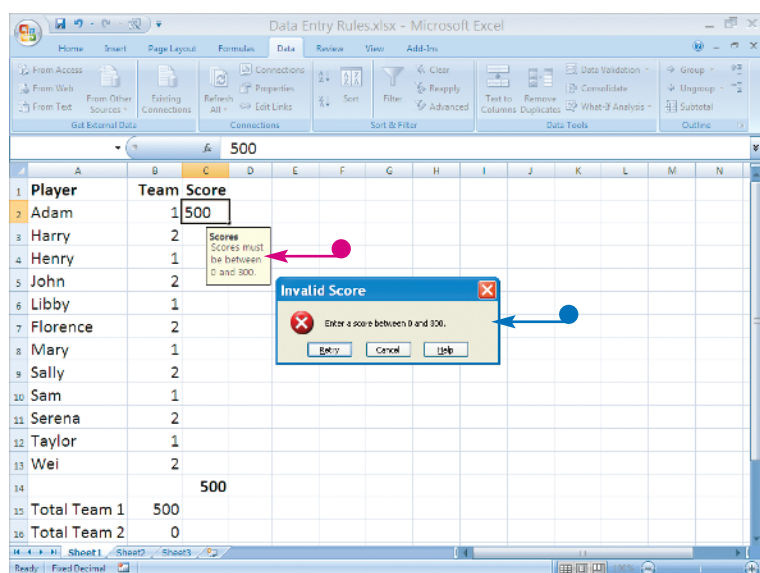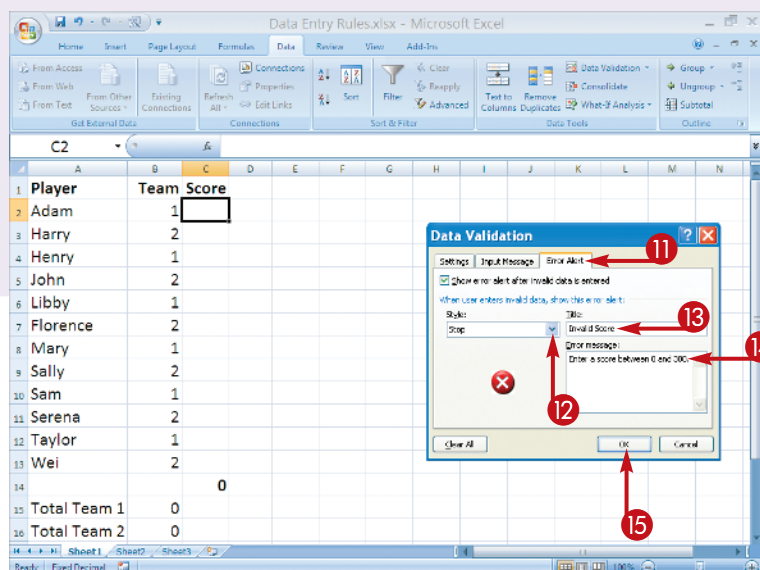As with all data validation, you can create an input message that appears when the user enters the cell,

as well as an error alert that displays if the user makes an incorrect entry. Error alerts can stop the user, provide a warning, or just provide information.

After you create your data entry rule, copy and paste it into the appropriate cells by using the Paste Special Validation option. See Task #1 under Paste Your Validation List to learn how to copy and paste your data entry rule.

① Click in the cell in which you want to create a data entry rule.

② Click the Data tab.

③ Click Data Validation in the Data Tools group.

● The Data Validation Dialog box appears.

④ Click the Settings tab.

⑤ Click here and select a validation criterion.

⑥ Click here and select a validation criterion.

⑦ Type the criteria or click and drag to select the cells with the criteria you want to use.

⑧ Click the Input Message tab.

⑨ Type a title for your message.

⑩ Type an input message.

⓫ Click the Error Alert tab.

⓬ Click here and select a style.

Choose Stop if you want to stop the entry of invalid data.

Choose Warning if you want to display a warning to the user, but not prevent entry.

Choose Information to provide information to the user.

⓭ Type a title.

⓮ Type an error message.

⓯ Click OK.

Excel creates the data entry rule.

● When you click in the cell, Excel displays your input message.

● When you enter invalid data, Excel displays your error alert.

TIPS

Important!

After you create your data entry rules, use the steps outlined in Task #1 under Paste Your Validation List to place your data entry rules in the cells in which you want them.

Did You Know?

If you use cells to specify your validation criteria in Step 7, you can change the criteria as needed without changing the validation rule.

Did You Know?

When you make an incorrect entry, the Stop Error Alert style displays the error message you entered and prevents you from making an entry that does not meet your criteria. The Warning Alert style and the Information Alert style allow you to enter data that does not meet your criteria.

Extend a series with
AUTOFILL

AutoFill gives you a way to ensure accurate data entry when a particular data series has an intrinsic order: days of the week, months of the year, numeric increments of two, and so on.

To use AutoFill, start by typing one or more values from which you will generate other values. Select the cell or cells 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 cells

selected, click the Fill handle in the lower-right corner and drag. When you release the mouse button, Excel fills the cells with values.

After filling the cells, Excel provides a menu button. Click the button to open a menu that enables you to change the fill. You can copy the initial value; fill the series one day at a time; or extend it by weekdays, months, or years, depending on the type of fill you create.
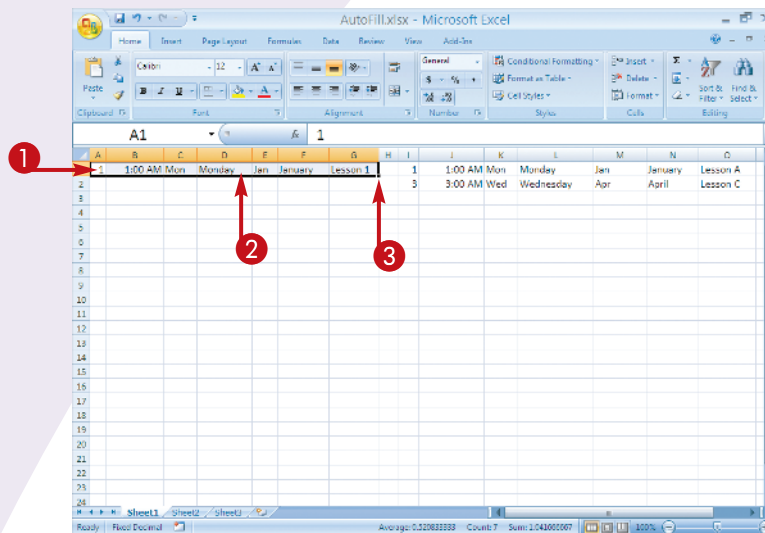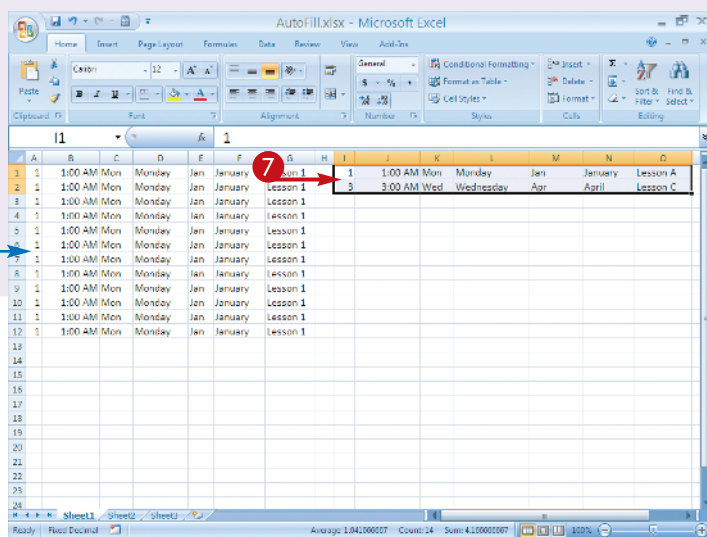

❶ Type the initial value for the series you want to create.
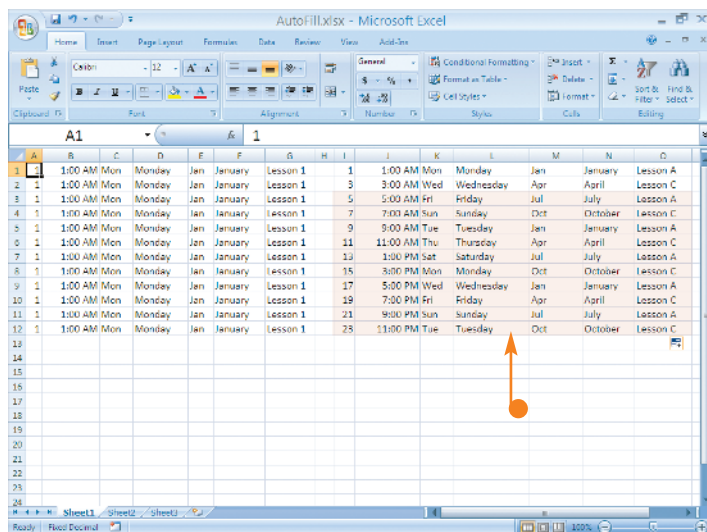
❷ Select the cell or cells.

❸ Click the Fill handle.
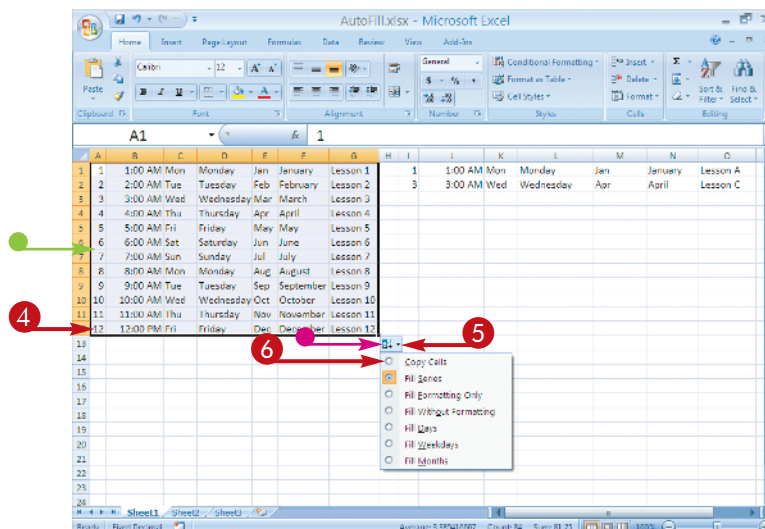
❹ Drag the desired number of cells and release the mouse.

● Excel fills the cells with a series.

● The AutoFill Options button appears.

❺ Click the button.

A menu appears.

❻ Click Copy Cells (○ changes to ⊙).

● Excel changes the series to a copy of the original cell.

7 Type a pattern of entries.

8 Repeat Steps 2 to 4.

DIFFICULTY LEVEL

● Excel fills the cell with the pattern.

TIP

Did You Know?

When you release the mouse button after creating a series, the AutoFill Options button (▦▾) appears. Click the button to view a menu of options. If you want to fill with the days of the week, you can click Fill Days or Fill Weekdays to fill with Monday through Friday (○ changes to ◉). You can also click the Fill Formatting Only option (○ changes to ◉) to change the formatting of the cell without changing the contents. Click the Fill Without Formatting option (○ changes to ◉) to change the contents of the filled cells without changing the formatting. You can extend a series in any direction: up, down, left, or right.
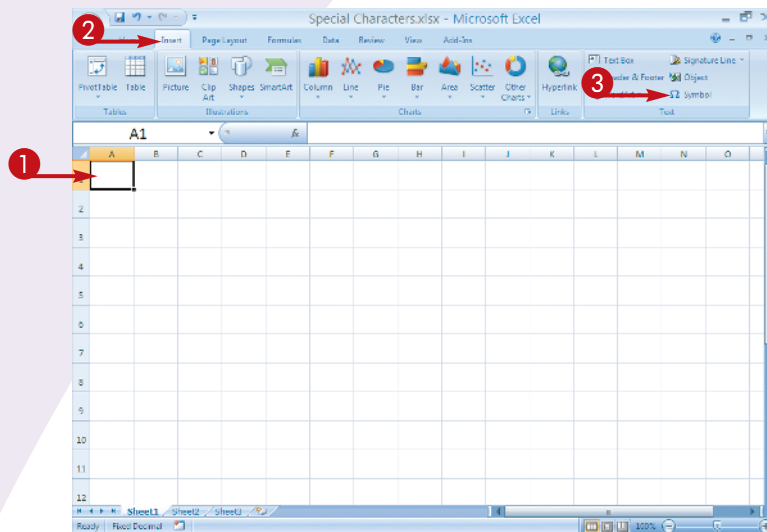
Insert
SYMBOLS OR SPECIAL CHARACTERS

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; they include 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 such as a number, date, or time usually prevents the value from being used in a formula. If you need to use a symbol in a cell used in a formula, use a number format. If you need to create a custom number format, see Task #98.

ADD A SYMBOL

1 Click in the cell in which you want to insert a symbol.

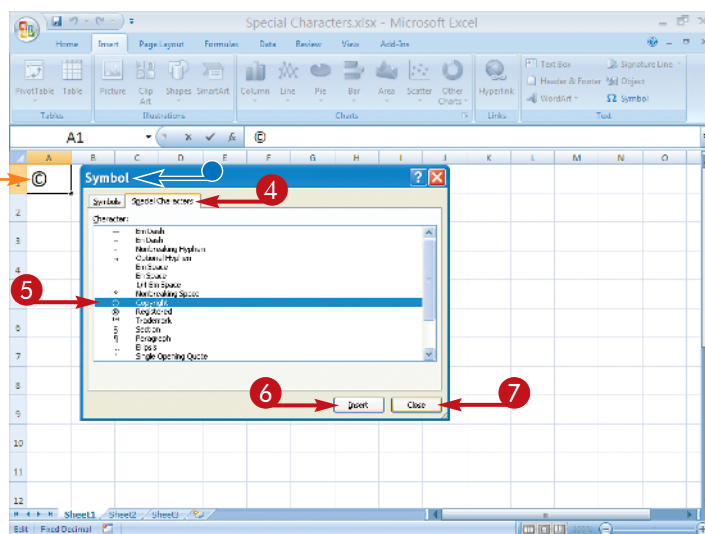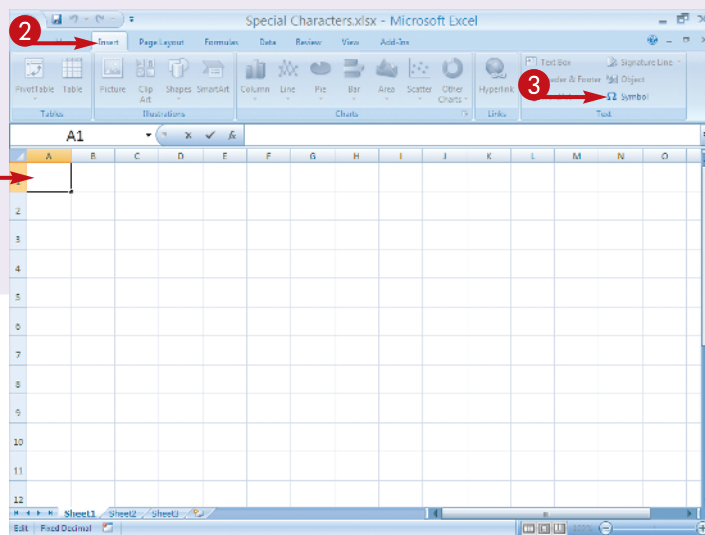**2** Click the Insert tab.

3 Click Symbol in the Text group.

● The Symbol dialog box appears.
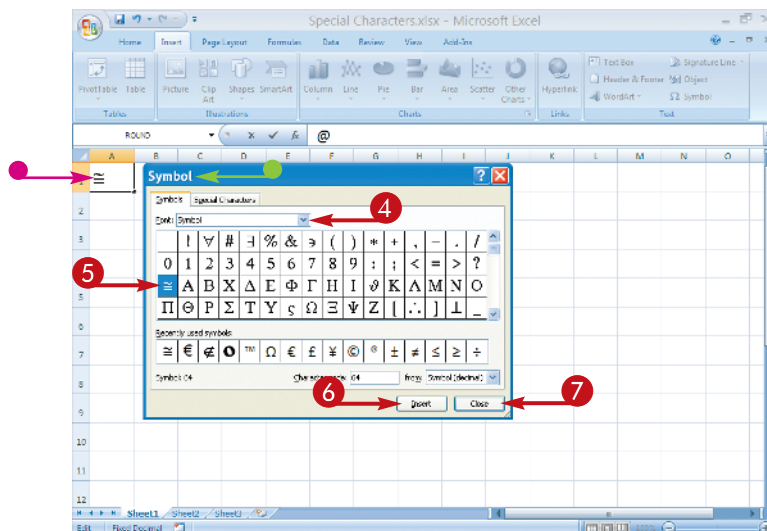
4 Click here and then select a font.

5 Click the Symbol you want.

6 Click Insert.

● The character appears in the cell.

7 Click Close.

The Symbol dialog box closes.

ADD A SPECIAL CHARACTER

1 Click in the cell in which you want to insert a special character.

2 Click the Insert tab.

3 Click Symbol in the Text group.

● The Symbol dialog box appears.

4 Click the Special Characters tab.

5 Locate the character you want and click it.

6 Click Insert.

● The character appears in the cell.

7 Click Close.

The Symbol dialog box closes.

TIPS

Did You Know?

In Excel, entries are numbers, dates, times, letters, or special characters. You can only use numbers, dates, and times in numeric calculations. Excel treats letters and special characters as blanks or zeroes in calculations. To have a currency symbol appear with a value, as in $400, and use the cell value in a calculation, you must apply a currency, accounting, or custom format.

Did You Know?

Excel fonts are based on Unicode, a set of 40,000 characters enabling the display of characters from approximately 80 languages, including right-to-left alphabets such as Hebrew. To use a language other than English, attach an appropriate keyboard and use the Control Panel to set the Regional and Language options.

Hide rows by
GROUPING AND OUTLINING

You can use the Excel grouping and outlining feature to hide sets of columns and/or rows. For example, you can hide the details relating to weekly sales so you can compare monthly sales. Your outlines can include up to eight levels of detail.

Outlining a set of rows or columns creates a clickable button on the far left or top of your worksheet. The button displays either a minus sign or a plus sign, depending on what is displayed in the worksheet. Click the minus sign to hide rows or columns, and

the plus sign to display them again. Adjacent to the button is a solid line that indicates, by its length, the approximate number of rows or columns Excel has hidden.

Outlining was designed for use with structured information such as lists but can be used with any worksheet. When you outline a PivotTable, outlining has the same effect as it does in any other worksheet.
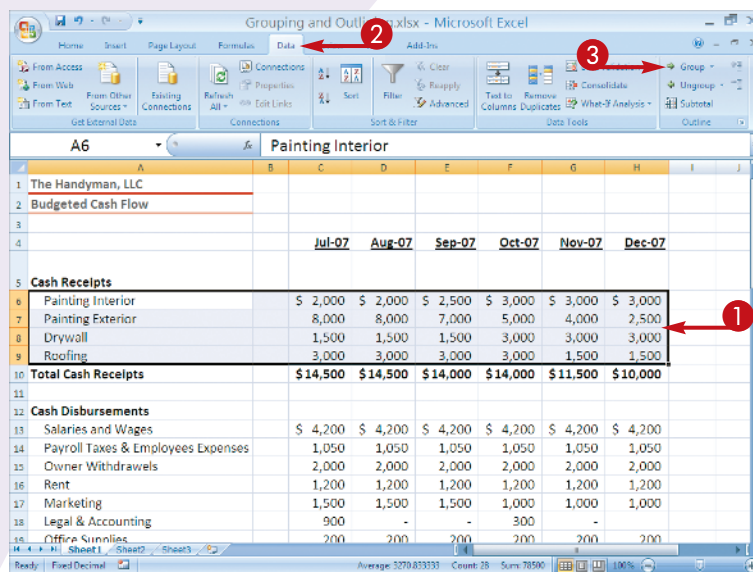
ADD A GROUP

1 Click and drag to select the rows or columns to hide.

2 Click the Data tab.

3 Click Group in the Outline group.

You can also select the rows or columns and then press Shift+Alt+Right Arrow.
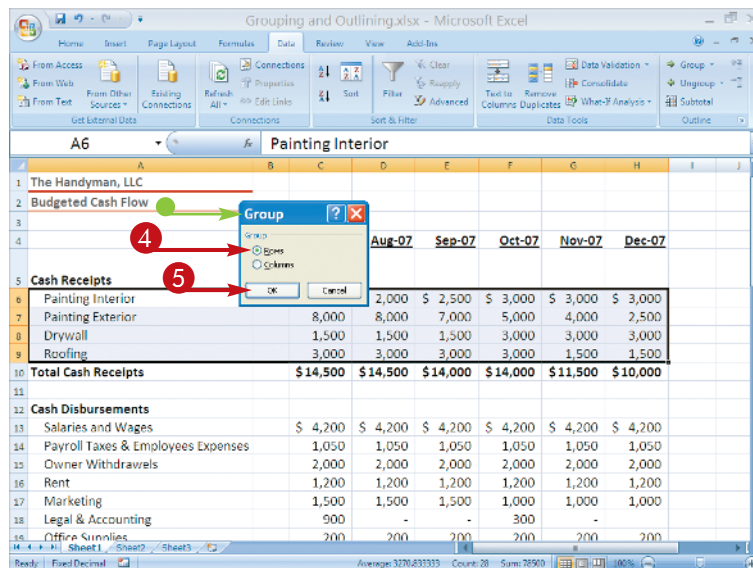
- The Group dialog box appears.

4 Click to select either the Rows or the Columns option (○ changes to ⊙).

Click Rows if you want to group rows.

Click Columns if you want to group columns.

5 Click OK.

- Excel creates a new left or top margin with a minus sign.

⑥ To hide the rows, click the minus sign.

The rows disappear, and a plus sign replaces the minus sign.

- To display the rows again, click the plus sign.

REMOVE A GROUP

① Click the Data tab.

② Click Ungroup.

- The Ungroup dialog box appears.

③ Click to select either the Rows or the Columns option (○ changes to ◉).

Click Rows if you want to ungroup rows.

Click Columns if you want to ungroup columns.

④ Click OK.

Excel removes the group.

TIPS

Did You Know?

You can nest outlines; that is, you can place one group of outlined rows or columns inside another. For example, within each year, you can group each month, and within each month, you can group each week.

Did You Know?

You can also hide rows and columns by clicking and dragging the lines that separate the column letters or the row numbers. Also, if you click and drag over column letters or row numbers and then right-click, a menu appears. Click Hide to hide the column or row or Unhide to display hidden columns or rows.
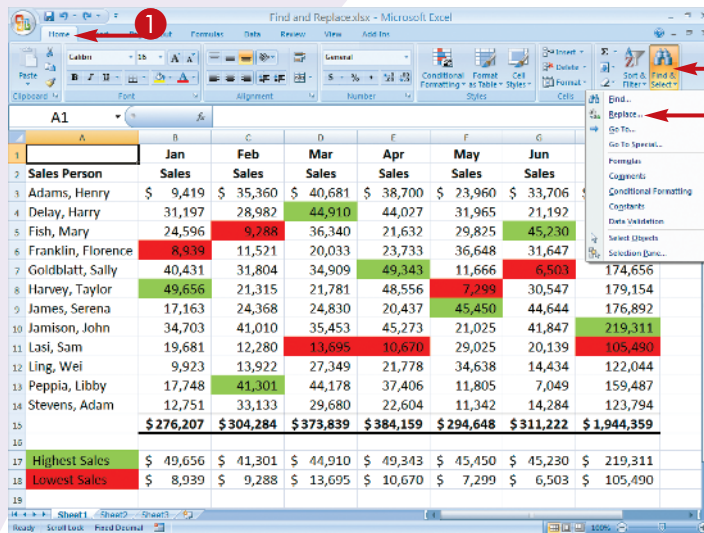
FIND AND REPLACE
formats

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 on the Home tab in the Editing group or by pressing Ctrl+H. The Find feature is part of Find and Replace and is available on the Home tab in the Editing group or by pressing Ctrl+F.

To find and replace formats, specify what you are seeking and with what you want to replace the item you are seeking. Click the Options button in the Find and Replace dialog box to specify additional details. Use the Within drop-down menu to indicate whether to search the current worksheet or the current workbook. Click the Formatting button to restrict your search to characters formatted in a certain way, such as bold or percentages.

1 Click the Home tab.

2 Click Find & Select in the Editing group.

A menu appears.

3 Click Replace.

Alternatively, you can press Ctrl+H to open the Find and Replace dialog box.

● The Find and Replace dialog box appears.
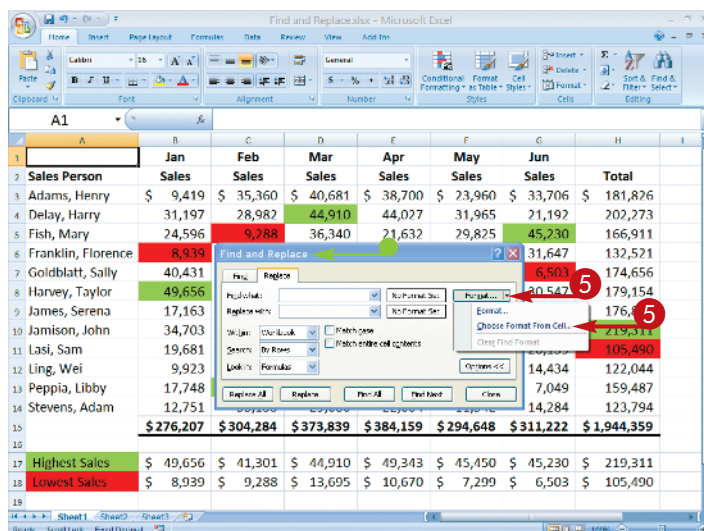
4 Click Options if your dialog box does not look like the one shown here.

Note: The Options button allows you to toggle between the short and long form of the dialog box.

5 Click here and select Choose Format from Cell.

The Find and Replace dialog box disappears.

⑥ Click in a cell that has the format you want to replace.

This example selects green fills.

- The Find and Replace dialog box reappears.

- A preview of the format you selected appears.

⑦ Click here and select Choose Format from cell.

The Find and Replace dialog box disappears.

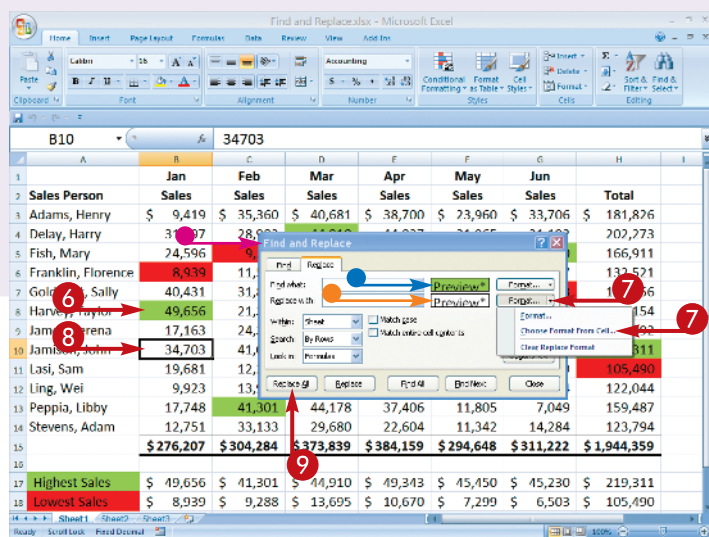**⑧** Click in a cell that has the format you want to use as a replacement.

This example selects a cell with no fill.

The Find and Replace dialog box reappears.

- A preview of the format you selected appears.

⑨ Click Replace All.

- Excel replaces the formats.

Excel replaces all of the green fills with plain fills.

⑩ Click OK.

⑪ Click Close.

- You can click Replace to make one change at a time.

- If you want to find instead of replace formats, click Find All or Find Next to highlight cells in the worksheet but not replace formats.
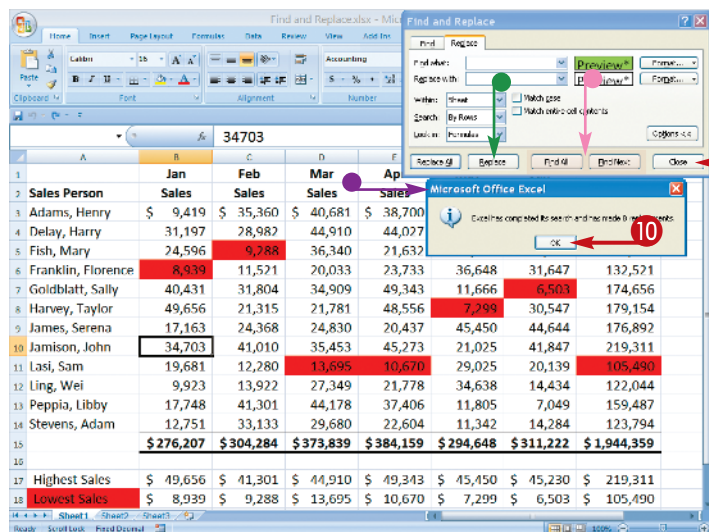
TIPS

Important!

Before you start a new Find and/or Replace, make sure you clear all formats by clicking the down arrow next to the two Format buttons and then clicking Clear Find Format and Clear Replace Format.

Did You Know?

In the Find and Replace dialog box, clicking a Format button opens the Find Format or Replace Format dialog box. You can use these dialog boxes to specify the Number, Alignment, Font, Border, Fill, or Protection you want to find and/or replace.

Did You Know?

When searching for text or values, type the text or value you are looking for in the Find What field. Type the text or value you want to replace it with in the Replace With field.
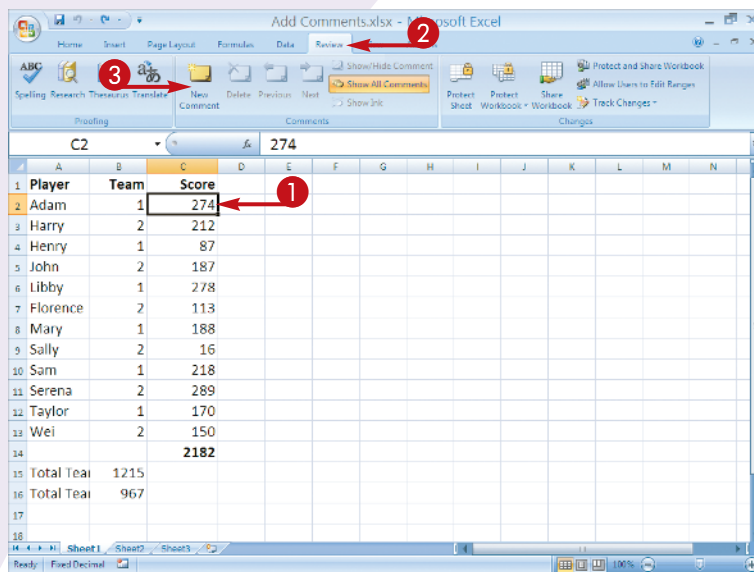
ADD COMMENTS
to your worksheet

A comment is a bit of descriptive text that enables you to document your work when you add text or create a formula. If someone else maintains your worksheet, or others use it in a workgroup, your comments can provide useful information. You can enter comments in any cell you want to document or otherwise annotate.

Comments in Excel do not appear until you choose to view them. Excel associates comments with individual cells and indicates their presence with a tiny red triangle in the cell's upper-right corner. View

an individual comment by clicking in the cell or passing your cursor over it. View all comments in a worksheet by clicking the Review tab and then clicking Show All Comments.

When you track your changes, Excel automatically generates a comment every time you copy or change a cell. The comment records what changes in the cell, who makes the change, and the time and date of the change. To learn more about tracking changes, see Task #34.

ADD A COMMENT

① Click in the cell to which you want to add a comment.

② Click the Review tab.

③ Click New Comment in the Comments group.
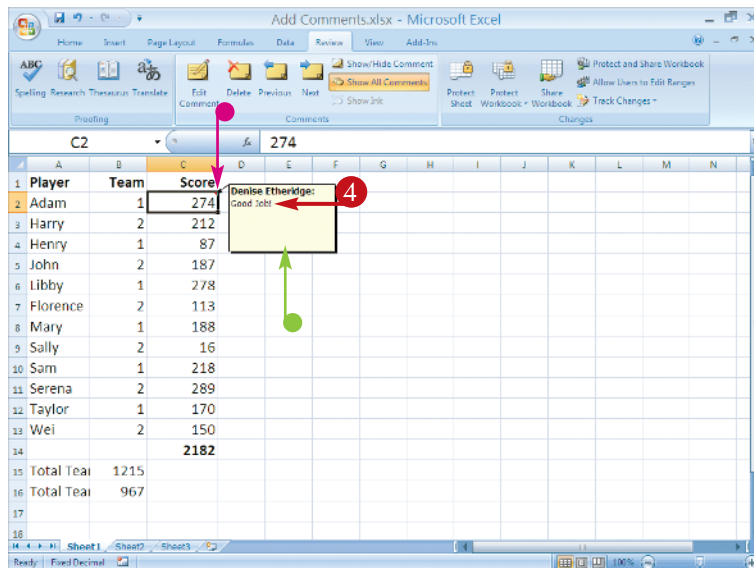
● A comment box appears.

● A tiny red triangle appears in the upper-right corner of the cell.

④ Type your comment.

Note: To apply bold and other formatting effects, select the text, right-click, click Format Comment, and then make changes as appropriate.

⑤ Click outside the comment box when you finish.

The comment box disappears.

Move the cursor over the cell to display your comment again.

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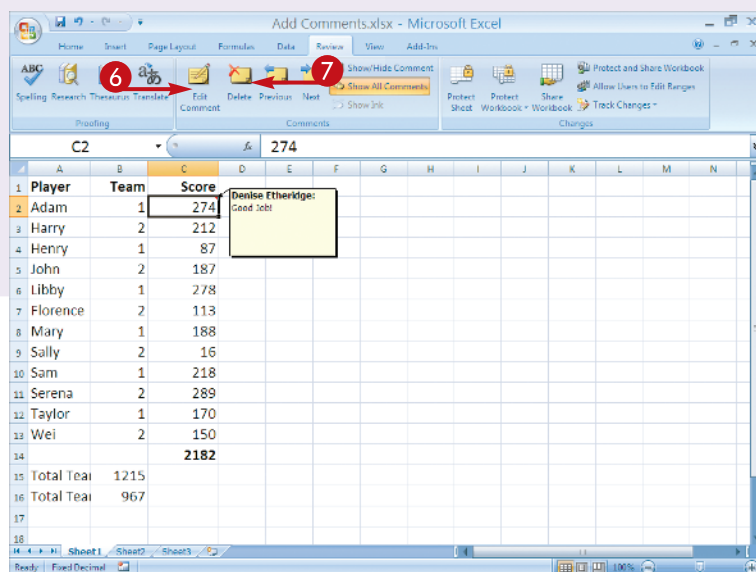
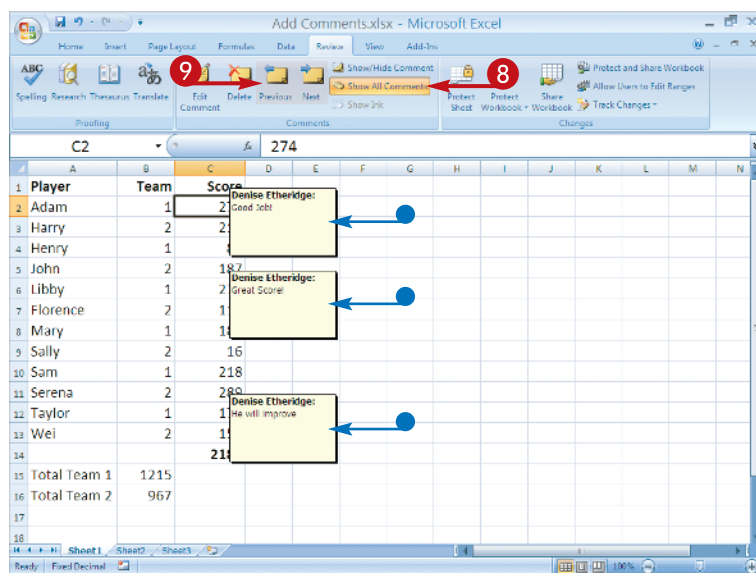**6** Click Edit Comment in the Comments group to edit a comment.

7 Click Delete in the Comments group to delete a comment.

DIFFICULTY LEVEL

DISPLAY ALL COMMENTS

8 Click Show All Comments in the Comments group.

● You can now see all the comments in the worksheet.

To close the comment boxes, click Show All Comments again.

9 To cycle through comments click Previous or Next in the Comments group.

TIPS

Did You Know?

To set the name that displays when you enter a comment, click the Office button, and then click Excel Options. The Excel Options dialog box appears. Click Popular and then type the name you want to appear in the comment box in the User Name field.

Did You Know?

When a comment gets in the way of another comment or blocks data, you can move it. Position your cursor over the comment box border until the arrow turns into a four-sided arrow. Click and drag the comment to a better location and then release the mouse button. Your comment remains in this position until you display all comments again.

Let Excel
READ BACK YOUR DATA

If you have a large amount of data to enter, especially numbers, you may want to check the accuracy of your data entry by having the data read back to you while you match it against a printed list. Excel can read back your data. All you have to do is specify the data you want to read, click a button, and Excel begins reading. You can choose to have Excel read across the first row and then move to the next row, or down the first column and then move to the next column. You can also have Excel read data as you enter it.

However, before Excel can read your data, you must add the following buttons to the Quick Access toolbar: Speak Cells, Speak Cells — Stop Speaking Cells, Speak Cells by Columns, Speak Cells by Rows, and Speak Cells on Enter. To learn how to add buttons to the Quick Access toolbar, see Task #95. You can find the buttons needed for this task in the Commands Not in the Ribbon section.
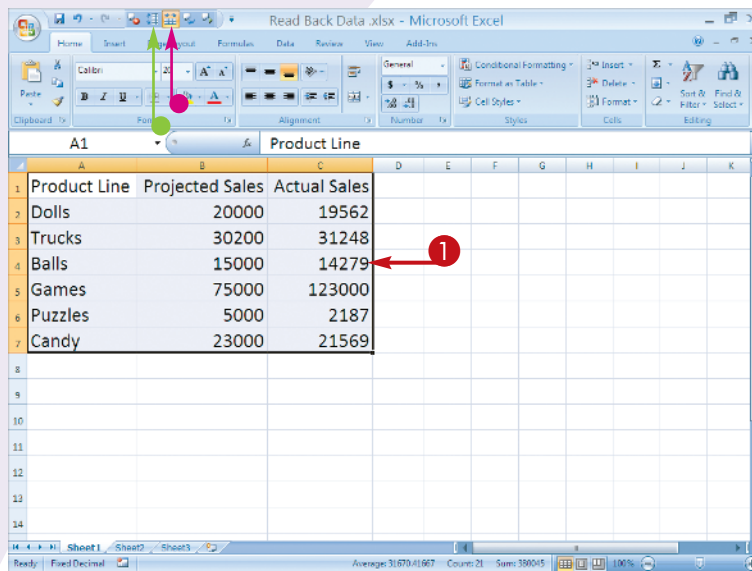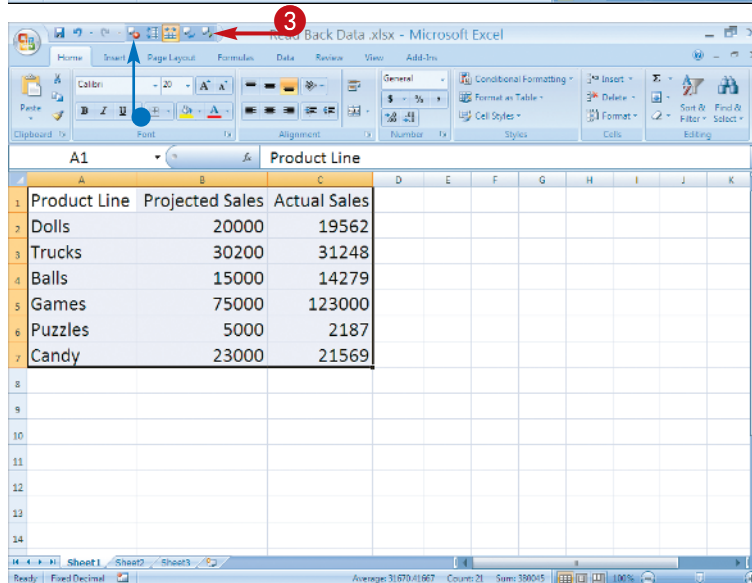

READ CELLS

1 Click and drag to select the cells you want Excel to read.

2 Click either the Speak by Columns or the Speak by Rows button.

● Click Speak by Columns if you want Excel to read down the columns.

● Click Speak by Rows if you want Excel to read across the rows.

3 Click the Speak Cells button.

Excel reads the cells.

● To stop the reading of cells, click the Speak Cells — Stop Speaking Cells button.

4 Click the Speak on Enter button.

Excel says, "Cells will now be spoken on Enter."

5 Enter data into your worksheet.

Excel reads the data as you enter it.

8

DIFFICULTY LEVEL

6 Click the Speak on Enter button again.

Excel says, "Turn off Speak on Enter."

Excel stops reading the data as you enter it.
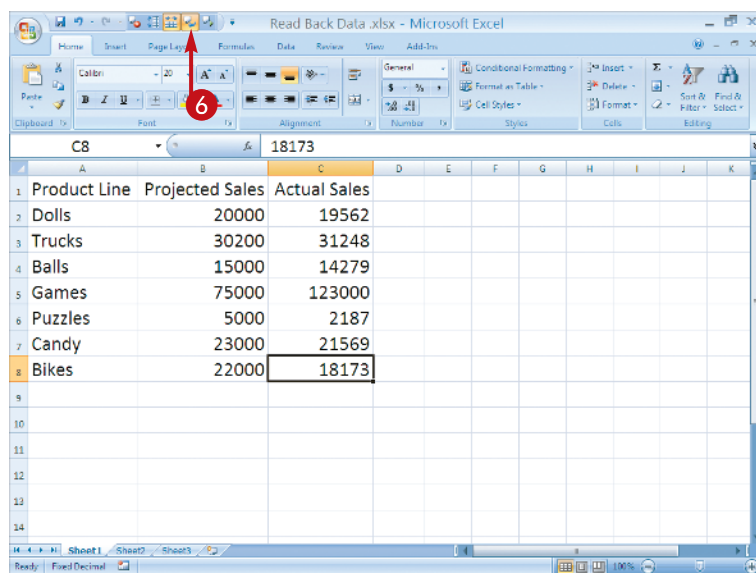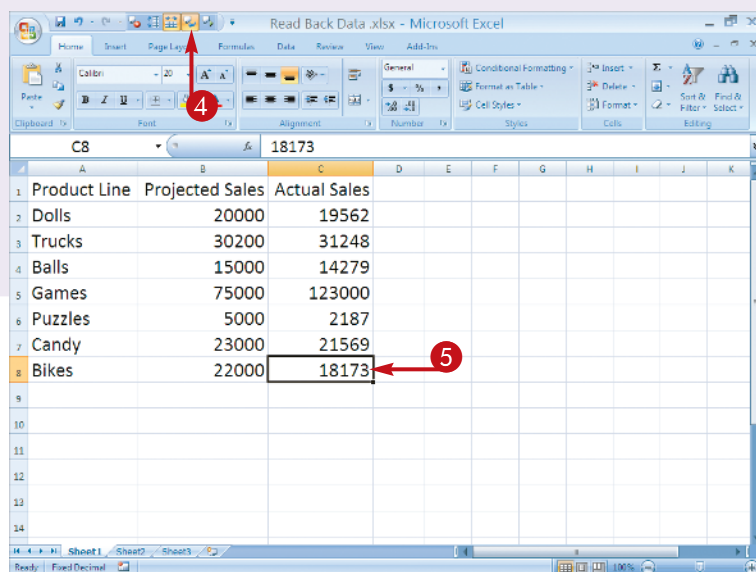
TIPS

Important!
To have Excel read your worksheet, you must have speakers attached to your computer and you must set the Speech, Sound, and Audio Devices option in the Control Panel properly. Click the Start button, Settings, and then Control Panel to check these device settings.

Did You Know?
You can also check the accuracy of your data entry by performing a spell check. Just click the Review tab, Proofing, and then Spelling. If your worksheet has errors, the Spelling dialog box appears and offers suggestions for the correct spelling. You can accept one of the suggestions or click one of the other dialog box options.
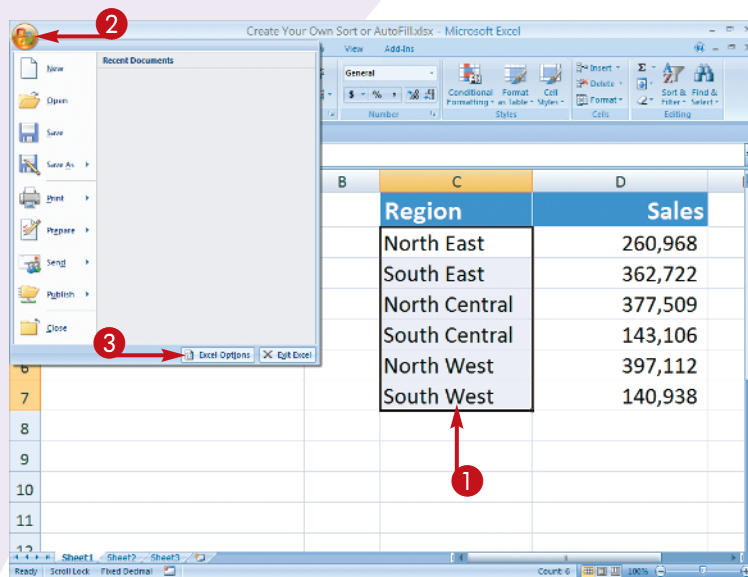
Create your own
SORT OR AUTOFILL

In Excel, you can sort your data alphabetically, by days of the week, or by months of the year. See Chapter 4 to learn more about sorting your data. You can also automatically fill cells with the days of the week or months of the year by using Excel's AutoFill feature. See Task # 3 to learn more about AutoFill.

If you have a data series you use often, you can create your own custom list and use it to fill cells automatically or to sort a list. For example, you collect data by region and you always list the data

in the following order: North East, South East, North Central, South Central, North West, and South West. You can create a custom list that enables you to AutoFill and sort based on your list.

Use the Custom List dialog box to create your custom list. You can type your list into the Custom List dialog box or import your list from cells in your worksheet. You access your custom list the same way you would any other custom list or AutoFill.
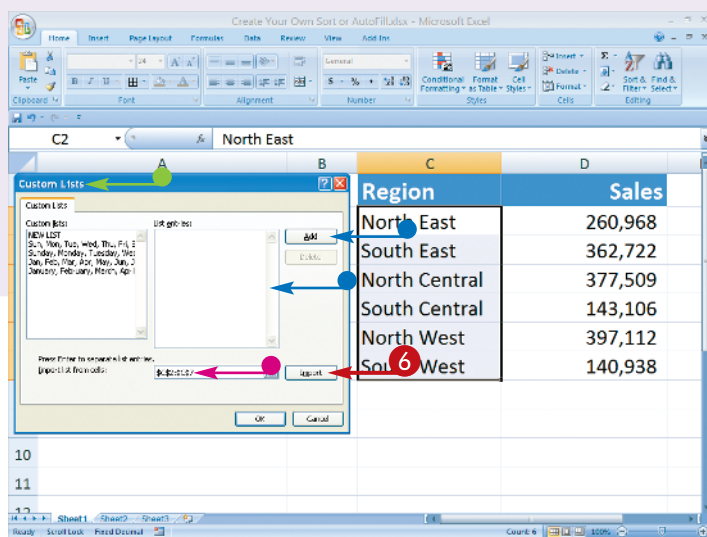

① Click and drag to select the cells with which you want to create your custom list.

② Click the Office button.

A menu appears.

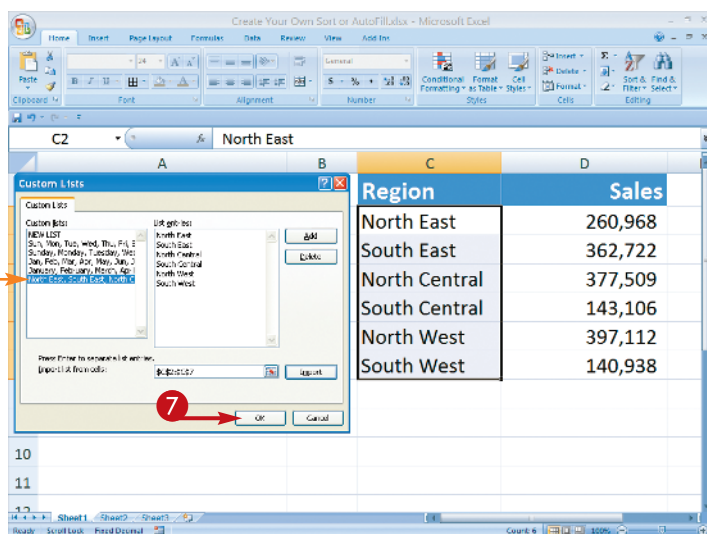③ Click Excel Options.
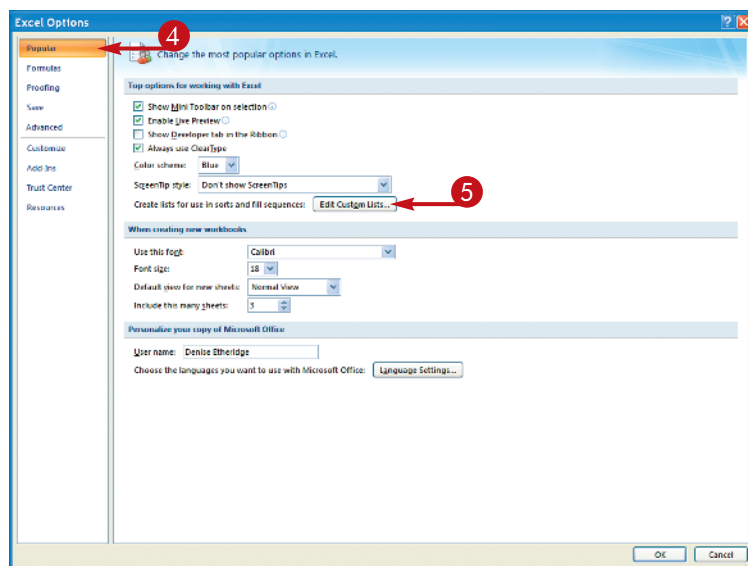
The Excel Options dialog box appears.

④ Click Popular.

⑤ Click the Edit Custom Lists button.

- The Custom Lists dialog box appears.

- The range you selected in Step 1 appears here.

  You can click and drag or type the range in the Import list from cells field.

- Alternatively, you can type your list here and then click Add.

6 Click Import.

- Your list appears as a custom list.

7 Click OK.

  Your list is ready to use.

TIPS

Did You Know?

To create an AutoFill using your custom list, type the first item in your list. Click and drag the fill handle located in the lower-right corner of the cell. Excel fills the cells with your custom list. If Excel does not fill the cells with your custom list, click the AutoFill Options button ( ) that appears and then click Fill Series (changes to).

Did You Know?

To sort using the custom list you created, click and drag to select the items you want to sort. Click the Data tab and then click Sort in the Sort & Filter Group. The Sort dialog box appears. In the Order field, click Custom List. The Custom List dialog box appears. Click your list and then click OK. For detailed instructions, see Chapter 4.