

Creating a Worksheet with Excel

Introduction

Are you spending too much time number-crunching, rewriting financial reports, drawing charts, or searching for your calculator? Throw away your pencil, graph paper, and calculator, and start using Microsoft Office Excel 2003.

Excel is a **spreadsheet program**, designed to help you record, analyze, and present quantitative information. With Excel you can track and analyze sales, organize finances, create budgets, and accomplish a variety of business tasks in a fraction of the time it would take using pen and paper. With Excel, you can create a variety of documents for analysis and record keeping, such as monthly sales and expense reports, charts displaying annual sales data, an inventory of products, or a payment schedule for an equipment purchase.

Excel offers several tools that make your worksheets look more attractive and professional. Without formatting, a worksheet can look like nothing more than meaningless data. To highlight important information, you can change the appearance of selected numbers and text by adding dollar signs, commas, and other numerical formats, or by applying attributes such as boldface and italics.

The file you create and save in Excel is called a **workbook**. It contains a collection of **worksheets**, which look similar to an accountant's ledger sheets with lines and grids, but can perform calculations and other tasks automatically.

What You'll Do

View the Excel Window

Select Cells

Move Around Cells

Enter Text and Numbers

Make Label Entries

Edit and Clear Cell Contents

Insert and Delete Cells

Select a Column or Row

Insert and Delete Columns or Rows

Hide and Unhide a Column or Row

Adjust Column Width and Row Height

Select and Name a Worksheet

Insert and Delete a Worksheet

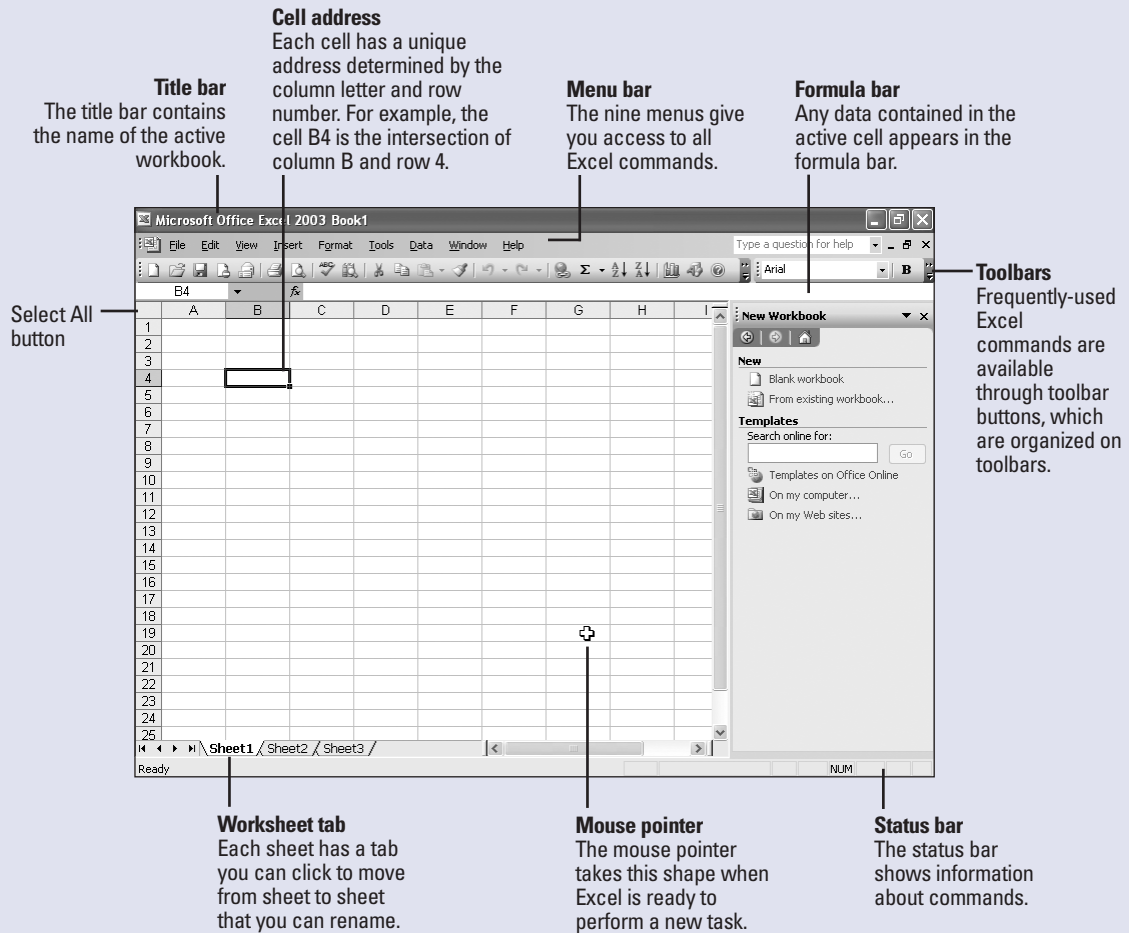
Move and Copy a Worksheet

Hide and Unhide Worksheets and Workbooks

Split a Worksheet in Panes

Freeze Panes

Viewing the Excel Window



Selecting Cells

Select a Cell

- 1 Click a cell to select it.

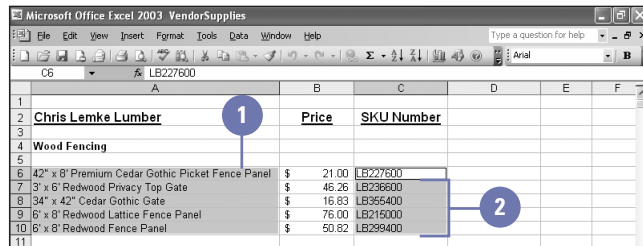
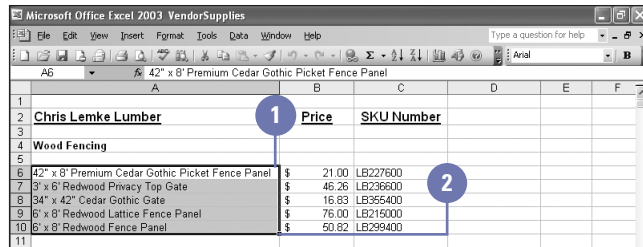
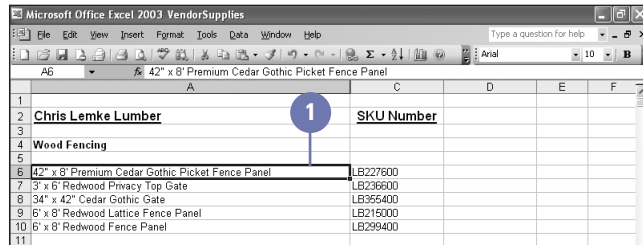
Select a Range

- 1 Click the first cell you want to include in the range.
- 2 Drag to the last cell you want to include in the range. The upper-left cell of a selected range is active and the others are highlighted.

Select a Noncontiguous Range

- 1 Click the first cell, or select the first contiguous range you want to include.
- 2 Press and hold Ctrl while you click additional cells and select other ranges.

A **cell** is the intersection of a column and a row. You must select a cell and make it **active** to work with it. A range is one or more selected cells that you can edit, delete, format, print, or use in a formula just like a single cell. The active cell has a dark border; selected cells have a light shading called a see-through selection. A range can be **contiguous** (all selected cells are adjacent) or **noncontiguous** (selected cells are not all adjacent). As you select a range, you can see the range reference in the Name box. A range reference lists the upper-left cell address, a colon (:), and the lower-right cell address. Commas separate noncontiguous cells. For example, B4:D10,E7,L24. You can click any cell to deselect a range.



Moving Around Cells



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Use the Mouse to Navigate

Using the mouse, you can navigate to:

- ◆ Another cell
- ◆ Another part of the worksheet
- ◆ Another worksheet

Did You Know?

Microsoft IntelliMouse users can roll from cell to cell with IntelliMouse.

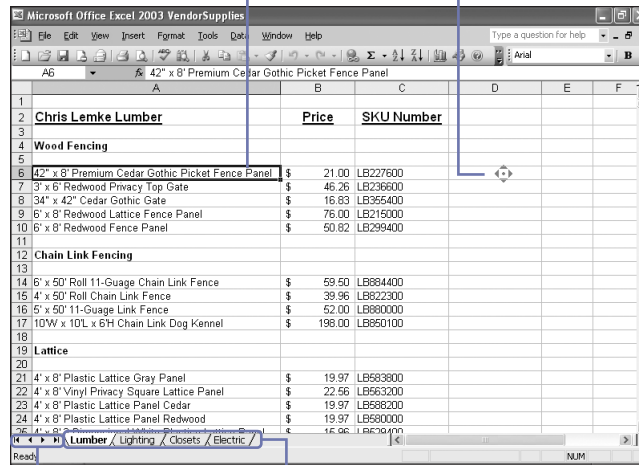
If you have the new Microsoft IntelliMouse — with the wheel button between the left and right buttons — you can click the wheel button and move the mouse in any direction to move quickly around the worksheet.

You can quickly zoom in or out using IntelliMouse. Instead of scrolling when you roll with the IntelliMouse, you can zoom in or out. To turn on this feature, click the Tools menu, click Options, click the General tab, click to select the Zoom On Roll With IntelliMouse check box, and then click OK.

You can move around a worksheet or workbook using your mouse or the keyboard. You might find that using your mouse to move from cell to cell is most convenient, while using various keyboard combinations is easier for covering large areas of a worksheet quickly. However, there is no right way; whichever method feels the most comfortable is the one you should use.

To move from one cell to another, point to the cell you want to move to, and then click.

When you click the wheel button on the IntelliMouse, the pointer changes shape. Drag the pointer in any direction to move to a new location quickly.



To see more sheet tabs without changing the location of the active cell, click a sheet scroll button.

To move from one worksheet to another, click the tab of the sheet you want to move to.

Use the Keyboard to Navigate

Using the keyboard, you can navigate to:

- ◆ Another cell
- ◆ Another part of the worksheet

Refer to the table for keyboard shortcuts for navigating around a worksheet.

Did You Know?

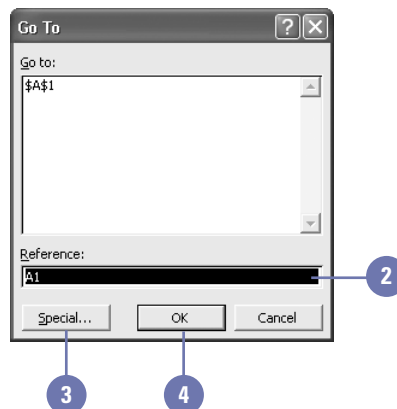
You can change or move cell selections after pressing Enter. When you press Enter, the active cell moves down one cell. To change the direction, click the Tools menu, click Options, click the Edit tab, click the Direction list arrow, select a direction, and then click OK.

Go To a Specific Location

- 1 Click the Edit menu, and then click Go To.
- 2 Type the cell address to the cell location where you want to go.
- 3 To go to other locations (such as comments, blanks, last cell, objects, formulas, etc.), click Special, select an option, and then click OK.
- 4 Click OK.

Keys For Navigating in a Worksheet

| Press This Key | To Move |
|----------------|---------------------------------------------------------------------------------------------------------------------------|
| Left arrow | One cell to the left |
| Right arrow | One cell to the right |
| Up arrow | One cell up |
| Down arrow | One cell down |
| Enter | One cell down |
| Tab | One cell to the right |
| Shift+Tab | One cell to the left |
| Page Up | One screen up |
| Page Down | One screen down |
| End+arrow key | In the direction of the arrow key to the next cell containing data or to the last empty cell in the current row or column |
| Home | To column A in the current row |
| Ctrl+Home | To cell A1 |
| Ctrl+End | To the last cell in the worksheet containing data |



Entering Text and Numbers



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Enter a Value

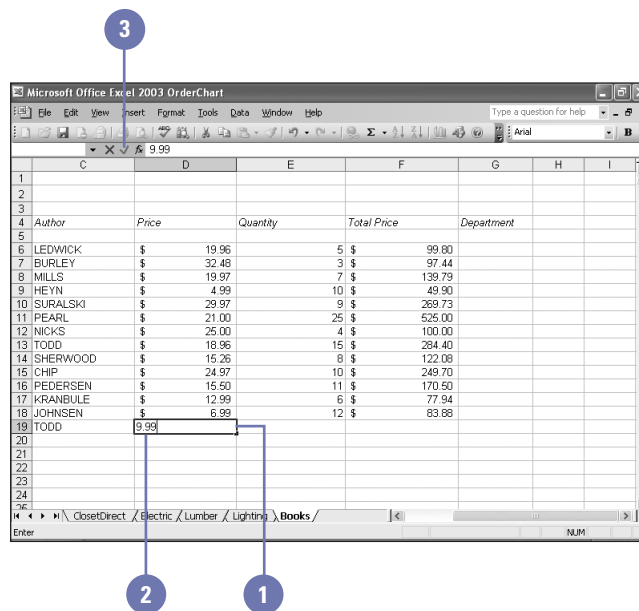
- 1 Click the cell where you want to enter a value.
- 2 Type a value.
To simplify your data entry, type the values without commas and dollar signs, and then apply a numeric format to them later.
- 3 Press Enter, or click the Enter button on the formula bar.

Did You Know?

You can use the numeric keypad like a calculator to enter numbers on your worksheet. Before using the numeric keypad, make sure NUM appears in the lower-right corner of the status bar. If NUM is not displayed, you can turn on this feature by pressing the Num Lock key on the numeric keypad.

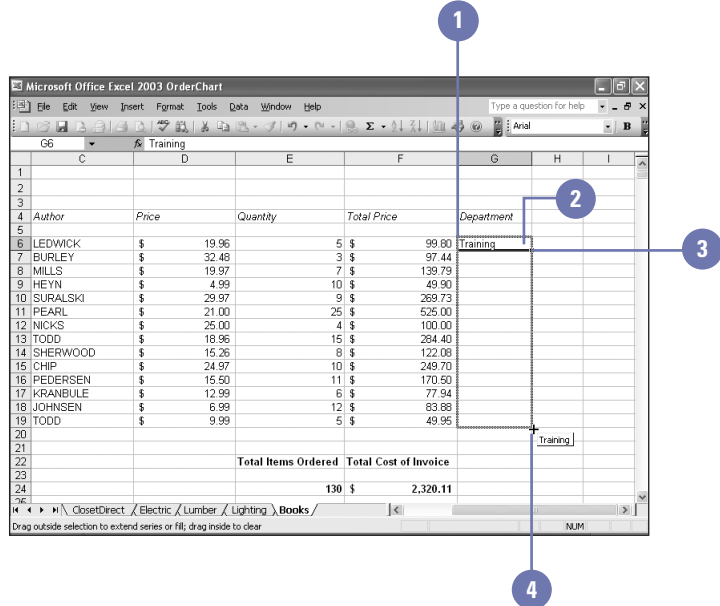
You can quickly select all data within a worksheet. To select all the cells in the worksheet, including those cells that do not contain data, click the Select All button.

You can enter values as whole numbers, decimals, percentages, or dates. You can enter values using the either numbers on the top row of your keyboard, or the numeric keypad on the right side of your keyboard. When you enter a date or the time of day, Excel recognizes these entries (if entered in an acceptable format) as numeric values and changes the cell's format to a default date, currency, or time format. The AutoFill feature fills in data based on the data in adjacent cells. Using the fill handle, you can enter data in a series, or you can copy values or formulas to adjacent cells. The entry in a cell can create an AutoFill that repeats a value or label, or the results can be a more complex extended series, such as days of the week, months of the year, or consecutive numbering.



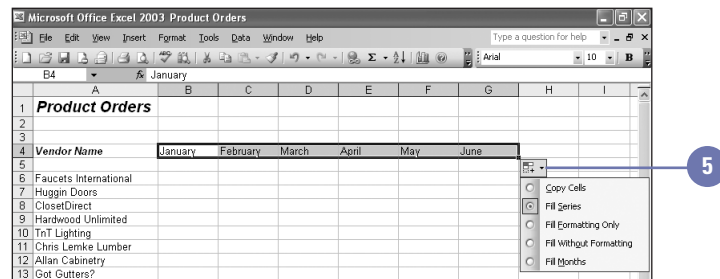
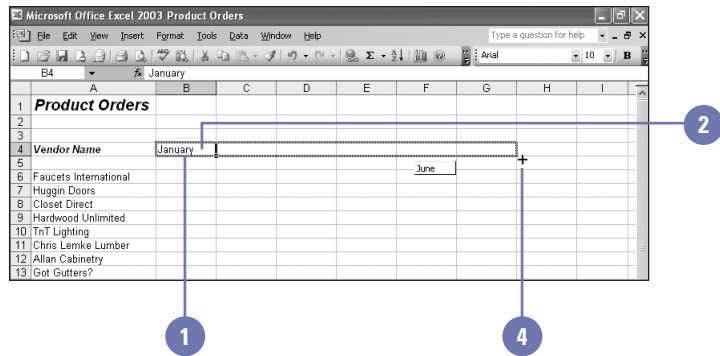
Enter Repeating Data Using AutoFill

- 1 Select the first cell in the range you want to fill.
- 2 Enter the starting value or label that you want to repeat.
- 3 Position the mouse pointer on the lower-right corner of the selected cell. The fill handle (a small black box) changes to the fill handle pointer (a black plus sign).
- 4 Drag the fill handle pointer over the range where you want to repeat the value. The fill handle ScreenTip indicates what is being repeated.



Create a Complex Series Using AutoFill

- 1 Select the first cell in the range you want to fill.
- 2 Enter the starting value for the series, and then click the Enter button on the formula bar.
- 3 Position the mouse pointer on the lower-right corner of the selected cell, and then hold down Ctrl. The pointer changes to the fill handle pointer (a black plus sign with a smaller plus sign).
- 4 Drag the fill handle pointer over the range where you want the value extended. The destination value appears in a small box.
- 5 Click the AutoFill Options button, and then click an option that specifies how you want to fill in the data.



Making Label Entries



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Enter a Text Label

1 Click the cell where you want to enter a text label.

2 Type a label.

A label can include uppercase and lowercase letters, spaces, punctuation, and numbers.

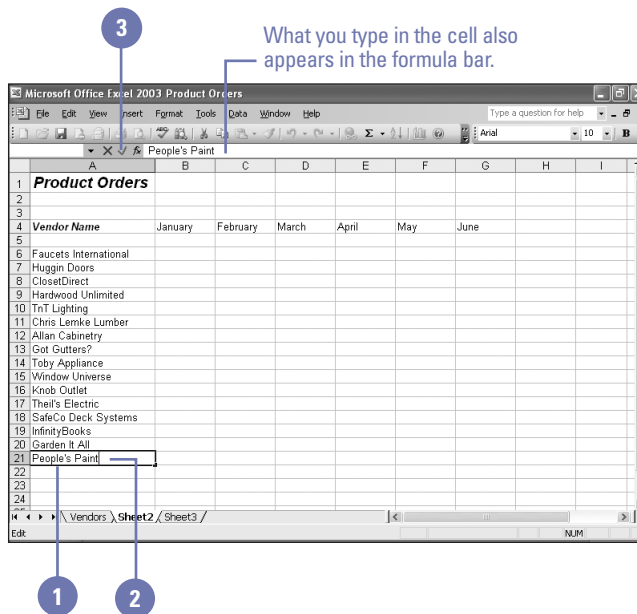
3 Click the Enter button on the formula bar, or press Enter.

Did You Know?

You can enter labels quickly using AutoComplete. Type the first few characters of a label. If a previous entry in that column begins with the same characters, AutoComplete displays the entry. Press Enter or click the Enter button on the formula bar to accept the entry. Resume typing to ignore the AutoComplete suggestion.

You can enable AutoComplete for cell values. Click the Tools menu, click Options, click the Edit tab, click to select the Enable AutoComplete For Cell Values check box, and then click OK.

Excel has three types of cell entries: labels, values, and formulas. Excel uses values and formulas to perform its calculations. A label is text in a cell that identifies the data on the worksheet so readers can interpret the information, such as titles or column headings. A label is not included in calculations. A value is a number you enter in a cell. To enter values easily and quickly, you can format a cell, a range of cells, or an entire column with a specific number-related format. Labels turn a worksheet full of numbers into a meaningful report by identifying the different types of information it contains. You use labels to describe or identify the data in worksheet cells, columns, and rows. You can enter a number as a label (for example the year 2003), so that Excel does not use the number in its calculations. To help keep your labels consistent, you can use Excel's **AutoComplete** feature, which completes your entries based on the format of previously entered labels.



Enter a Number as a Label

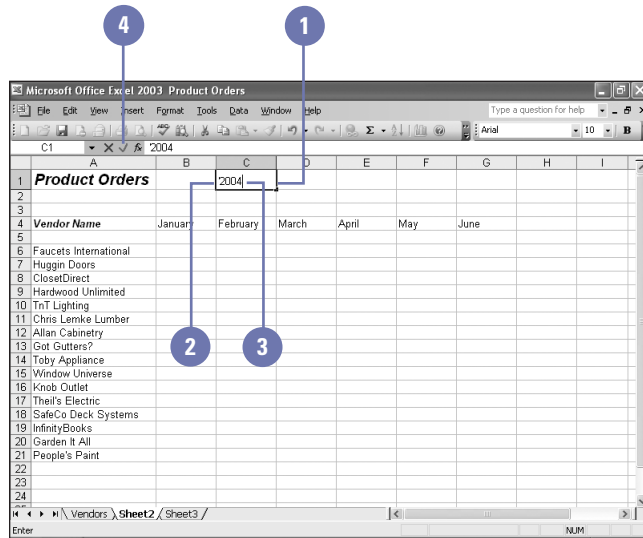
- 1 Click the cell where you want to enter a number label.
- 2 Type ' (apostrophe).

The apostrophe is a label prefix and does not appear on the worksheet.

- 3 Type a number.

Examples of number labels include a year, social security number, or telephone number.

- 4 Click the Enter button on the formula bar, or press Enter or Tab.

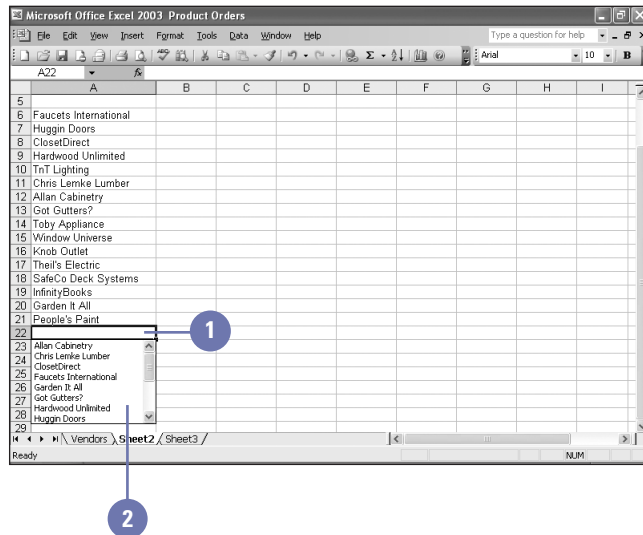


Enter a Label from the PickList

- 1 Right-click the cell at the bottom of a list where you want to enter a label, and then click Pick From Drop-Down List.
- 2 Click an entry from the list.

Did You Know?

Using long labels might appear truncated. When you enter a label wider than the cell it occupies, the excess text appears to spill into the next cell to the right—unless there is data in the adjacent cell. If the adjacent cell contains data, the label appears truncated—you see only the portion of the label that fits in the cell's current width.



Editing Cell Contents



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Edit Cell Contents

- 1 Double-click the cell you want to edit.

The status bar displays Edit instead of Ready.

- 2 Use the mouse pointer or the Home, End, and arrow keys to position the insertion point in the cell.

- 3 To erase characters, press Backspace or Delete.

- 4 To enter characters, type new characters.

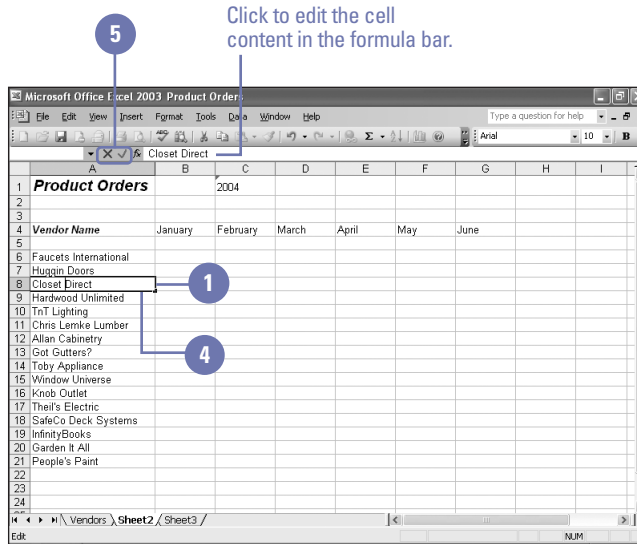
- 5 Press Enter or click the Enter button on the formula bar to accept the edit, or click the Cancel button on the formula bar to cancel it.

Did You Know?

You can change editing options. Click the Tools menu, click Options, click the Edit tab, change the editing options you want, and then click OK.

By deleting a cell, you remove the cell completely from the worksheet. When you choose Delete from the Edit menu or from the shortcut menu, you must choose to move the remaining cells left or up, or to remove the entire row or column.

No matter how much you plan, you can count on having to make changes on a worksheet. Sometimes you'll need to correct an error; other times, you'll want to add new information or see the results for different conditions, such as higher sales, fewer produced units, or other variables. You edit data just as easily as you enter it, using the formula bar or directly in the active cell.



Clearing Cell Contents



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Clear the Contents of a Cell

- 1 Select the cell or range you want to clear.
- 2 Click the right mouse button, and then click Clear Contents on the shortcut menu, or press Delete.

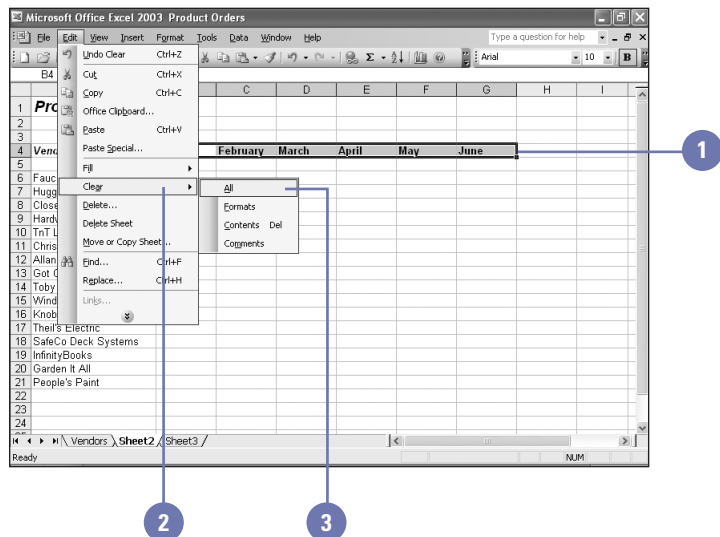
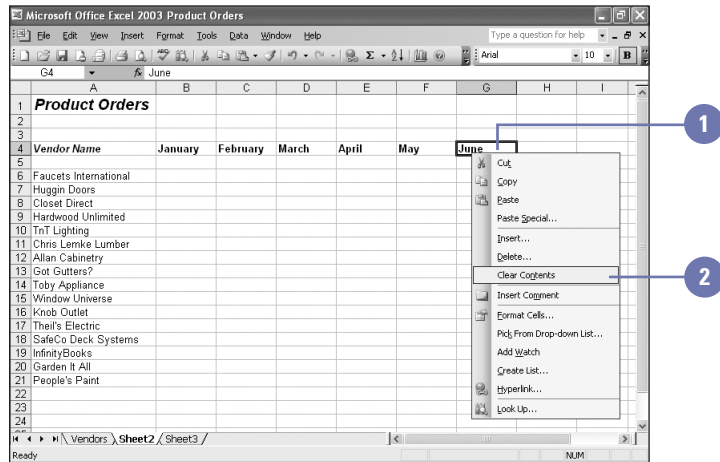
Clear Cell Contents, Formatting, and Comments

- 1 Select the cell or range you want to clear.
- 2 Click the Edit menu, and then point to Clear.
- 3 Click All.

See Also

See "Inserting Comments" on page 41 for information on inserting comments.

You can clear a cell to remove its contents. Clearing a cell does not remove the cell from the worksheet; it just removes from the cell whatever elements you specify: data, comments (also called cell notes), or formatting instructions. When clearing a cell, you must specify whether to remove one, two, or three of these elements from the selected cell or range.



Inserting and Deleting Cells

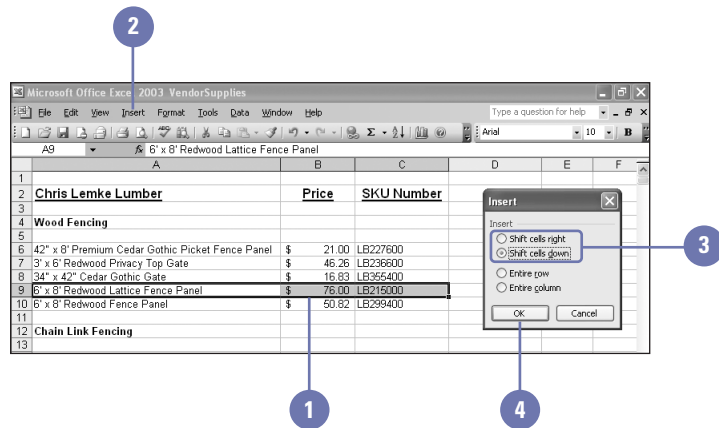


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Insert One or More Cells

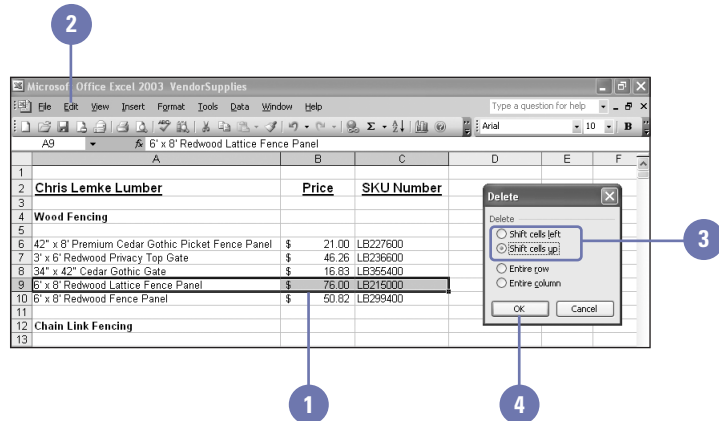
- 1 Select one or more cells where you want to insert new cell(s).
- 2 Click the Insert menu, and then click Cells.
- 3 To move the contents of the cells right, click the Shift Cells Right option; to move the contents of the cells down, click the Shift Cells Down option.
- 4 Click OK.

You can insert new, blank cells anywhere on the worksheet so you can enter new data exactly where you want it. Inserting cells moves the remaining cells in the column or row to the right or down as you choose and adjusts any formulas so they refer to the correct cells. You can also delete cells if you find you don't need them; deleting cells shifts the remaining cells to the left or up a row—just the opposite of inserting cells. Deleting a cell is different from clearing a cell. Deleting a cell removes the actual cell from the worksheet whereas clearing a cell erases the cell contents, the cell format, or both.



Delete One or More Cells

- 1 Select one or more cells you want to delete.
- 2 Click the Edit menu, and then click Delete.
- 3 To move the remaining cells left, click the Shift Cells Left option; to move the remaining cells up, click the Shift Cells Up option.
- 4 Click OK.

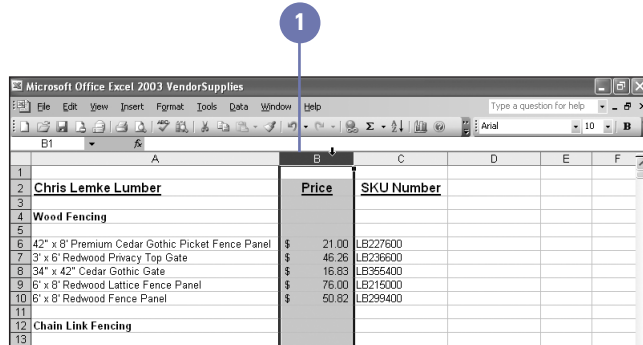


Selecting a Column or Row

Select a Column or Row

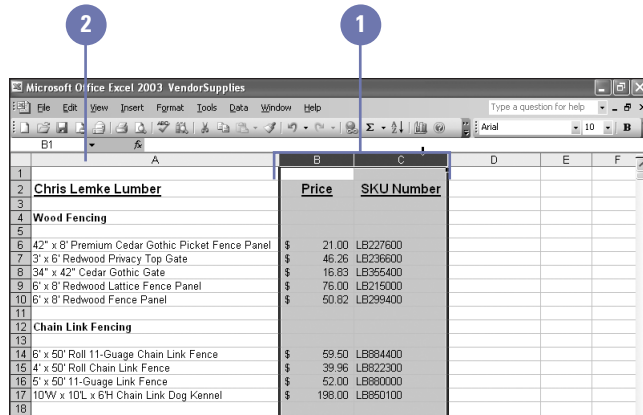
- 1 Click the column or row header button of the column or row you want to select.

You can select one or more columns or rows in a worksheet in order to apply formatting attributes, insert or delete columns or rows, or perform other group actions. The header buttons above each column and to the left of each row indicate the letter or number of the column or row. You can select multiple columns or rows even if they are non-contiguous—that is, not next to one another in the worksheet.



Select Multiple Columns or Rows

- 1 Drag the mouse over the header buttons of any contiguous columns or rows you want to select.
- 2 To select noncontiguous columns or rows, press and hold Ctrl while clicking each additional column or row header button.



Did You Know?

You can select the entire worksheet quickly. Click the Select All button located above the row number 1 and the left of column A.

Inserting and Deleting Columns or Rows



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Insert One or More Columns or Rows

- 1 To insert a column, click the column header button directly to the right of where you want to insert the new column.

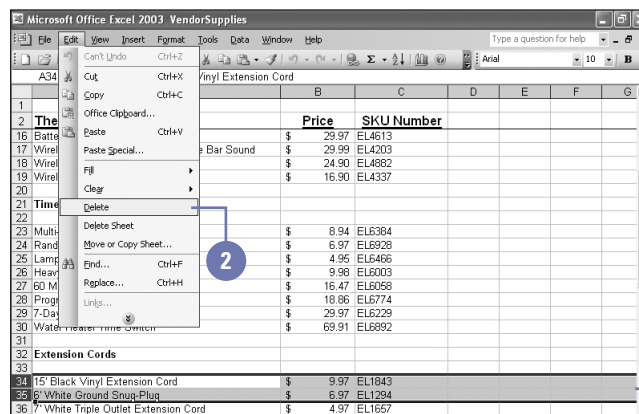
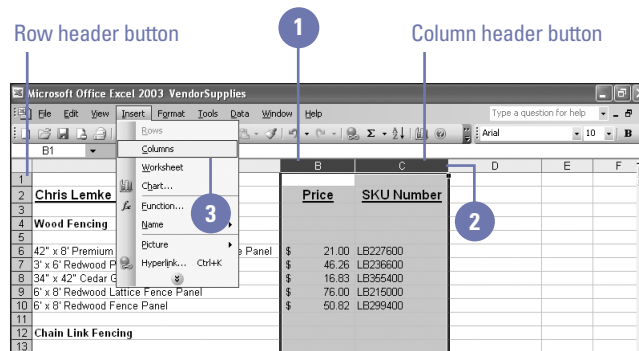
To insert a row, click the row header button directly below where you want to insert the new row.

- 2 To insert multiple columns or rows, drag to select the header buttons for the number of columns or rows you want to insert.
- 3 Click the Insert menu, and then click Columns or Rows.

Delete One or More Columns or Rows

- 1 Select the columns or rows you want to delete.
- 2 Click the Edit menu, and then click Delete.

You can insert one or more blank columns and rows on a worksheet between columns or rows that are already filled. The header buttons above each column and to the left of each row indicate the letter or number of the column or row. Inserted columns are added to the left of the selected columns. Inserted rows are added above the selected rows. Excel repositions existing cells to accommodate the new columns and rows and adjusts any existing formulas so that they refer to the correct cells. The Insert menu can change depending on the selection. When you select a column, only the Columns command appears on the Insert menu. When you select a row, only the Rows command appears.



Hiding and Unhiding a Column or Row



XL03S-3-3

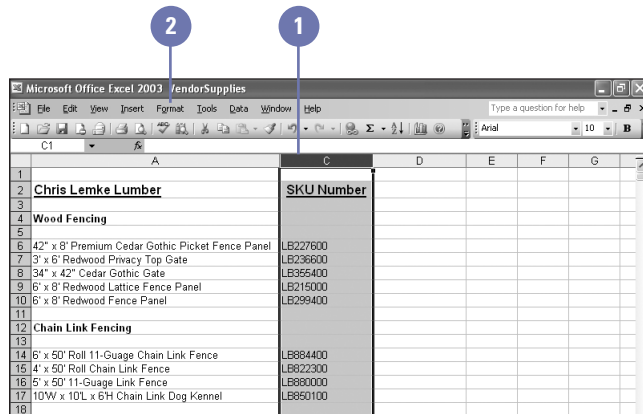
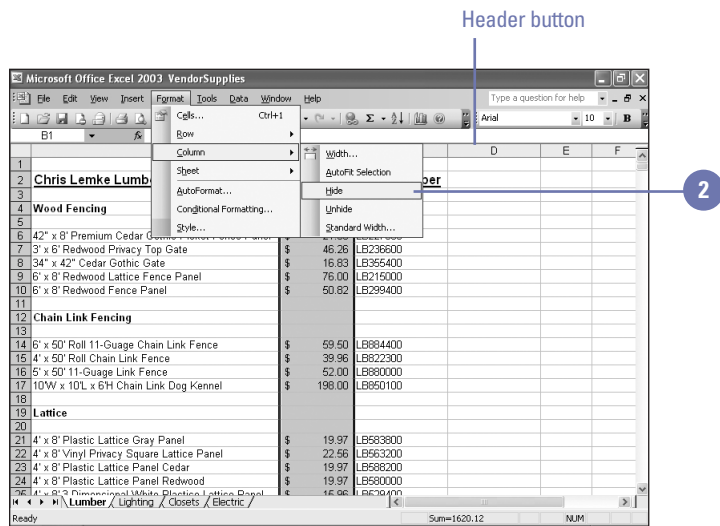
Hide a Column or Row

- 1 Click the column or row header button of the column or row you want to hide. (Drag to select multiple header buttons to hide more than one column or row.)
- 2 Click the Format menu, point to Column or Row, and then click Hide.

Unhide a Column or Row

- 1 Drag to select the column or row header buttons on either side of the hidden column or row.
- 2 Click the Format menu, point to Column or Row, and then click Unhide.

Not all the data on a worksheet should be available to everyone. You can hide sensitive information without deleting it by hiding selected columns or rows. For example, if you want to share a worksheet with others, but it includes confidential employee salaries, you can simply hide the salary column. Hiding columns and rows does not affect calculations in a worksheet; all data in hidden columns and rows is still referenced by formulas as necessary. Hidden columns and rows do not appear in a printout either. When you need the data, you can unhide the sensitive information.



Adjusting Column Width and Row Height

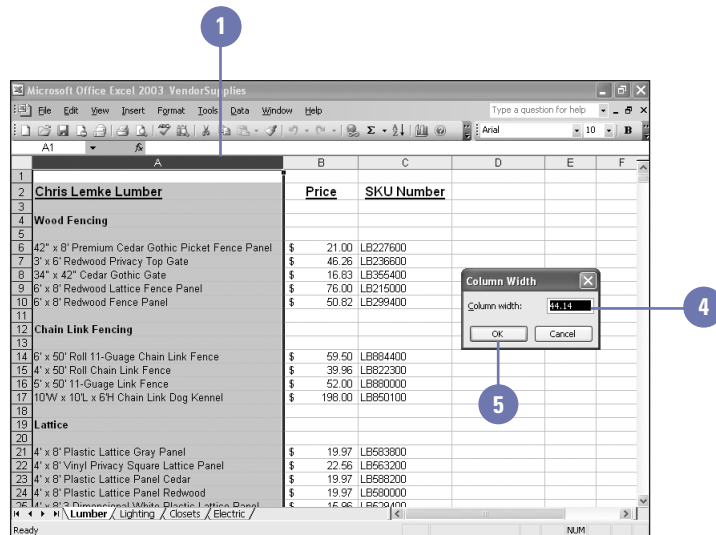


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Adjust Column Width or Row Height

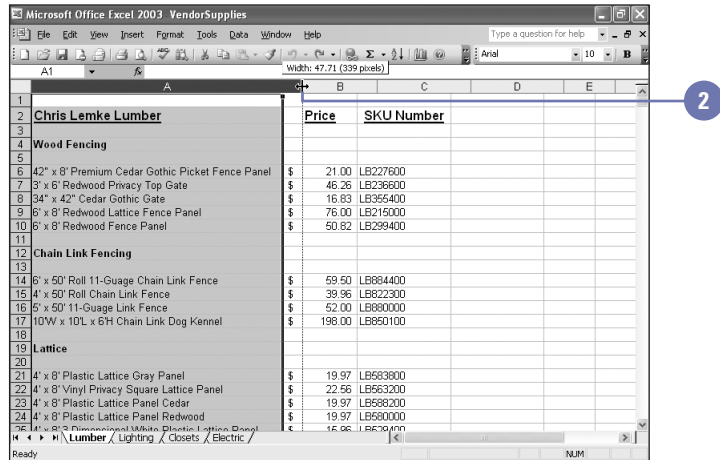
- 1 Click the column or row header button for the first column or row you want to adjust.
- 2 If you want, drag to select more columns or rows.
- 3 Right-click the selected column(s) or row(s), and then click Column Width or Row Height.
- 4 Type a new column width or row height in points.
- 5 Click OK.

You've entered labels and values, constructed formulas, and even formatted the cells, but now some of your data isn't visible; the value displays as ##### in the cell. Also, some larger-sized labels are cut off. You can narrow or widen each column width to fit its contents and adjust your row heights as needed. As you build your worksheet, you can change the default width of some columns or the default height of some rows to accommodate long strings of data or larger font sizes. You can manually adjust column or row size to fit data you have entered, or you can use AutoFit to resize a column or row to the width or height of its largest entry.



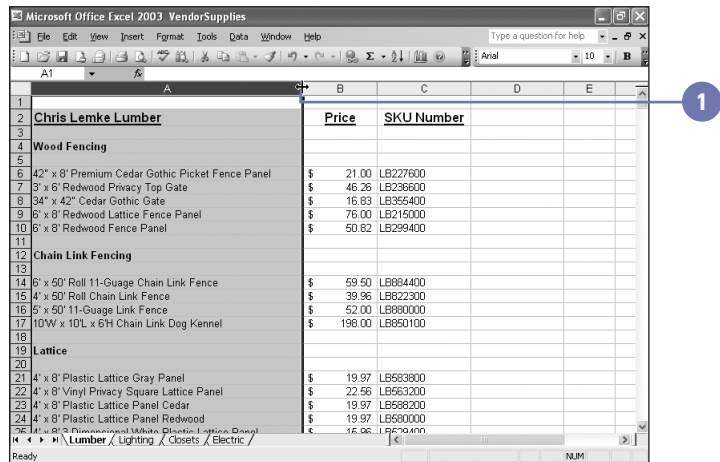
Adjust Column Width or Row Height Using the Mouse

- 1 Position the mouse pointer on the right edge of the column header button or the bottom edge of the row header button for the column or row you want to change.
- 2 When the mouse pointer changes to a double-headed arrow, click and drag the pointer to a new width or height.



Change Column Width or Row Height Using AutoFit

- 1 Position the mouse pointer on the right edge of the column header button or the bottom edge of the row header button for the column or row you want to change.
- 2 When the mouse pointer changes to a double-headed arrow, double-click the mouse.



Selecting and Naming a Worksheet



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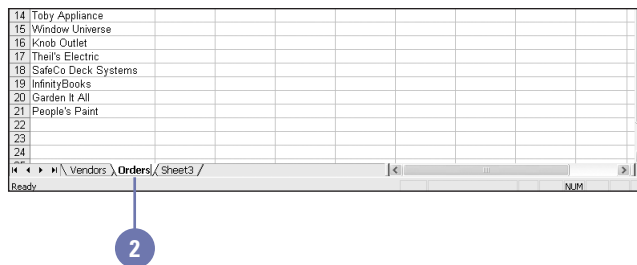
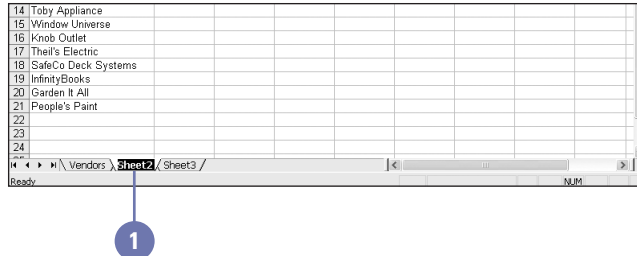
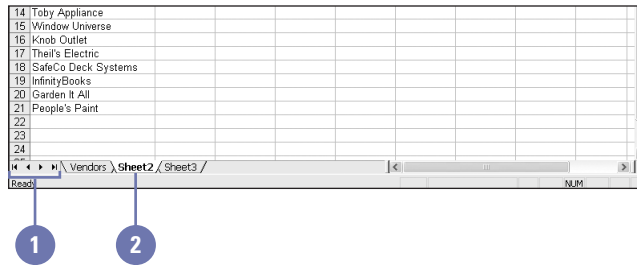
Select a Worksheet

- 1 If necessary, click a sheet tab scroll button to display other tabs.
- 2 Click a sheet tab to make it the active worksheet.
- 3 To select multiple worksheets, press and hold Ctrl as you click other sheet tabs.

Name a Worksheet

- 1 Double-click the sheet tab you want to name.
- 2 Type a new name.
The current name, which is selected, is replaced when you begin typing.
- 3 Press Enter.

Each new workbook opens with three worksheets (or sheets), in which you store and analyze values. You work in the active, or selected, worksheet. The default worksheet names are Sheet1, Sheet2, and Sheet3, which appear on the sheet tab, like file folder labels. As you create a worksheet, give it a meaningful name to help you remember its contents. The sheet tab size adjusts to fit the name's length. If you work on a project that requires more than three worksheets, add additional sheets to the workbook so all related information is stored in one workbook.



Inserting and Deleting a Worksheet



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Insert a Worksheet

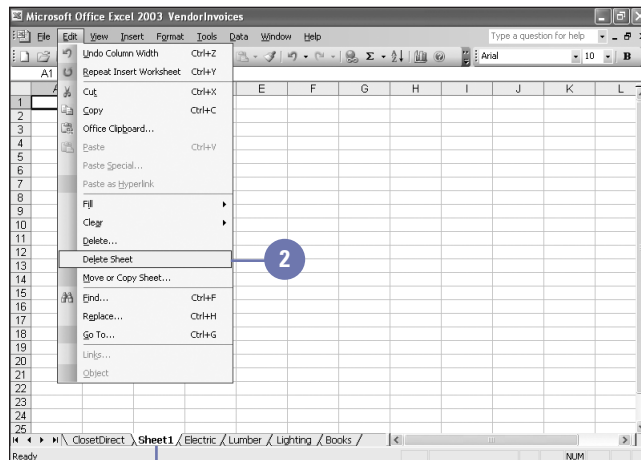
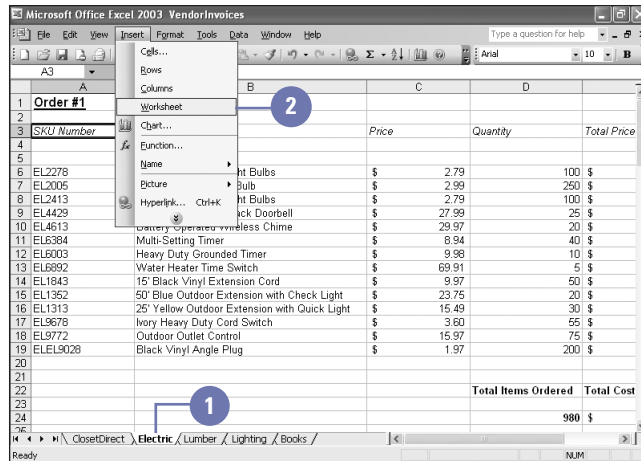
- 1 Click the sheet tab to the right of where you want to insert the new sheet.
- 2 Click the Insert menu, and then click Worksheet.

A new worksheet is inserted to the left of the selected worksheet.

Delete a Worksheet

- 1 Click the sheet tab of the worksheet you want to delete.
- 2 Click the Edit menu, and then click Delete Sheet.

You can add or delete sheets in a workbook. If, for example, you are working on a project that requires more than three worksheets, you can insert additional sheets in one workbook rather than open multiple workbooks. You can insert as many sheets in a workbook as you want. If, on the other hand, you are using only one or two sheets in a workbook, you can delete the unused sheets to save disk space. Before you delete a sheet from a workbook, make sure you don't need the data. You cannot undo the deletion.



Moving and Copying a Worksheet



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Move a Worksheet Within a Workbook

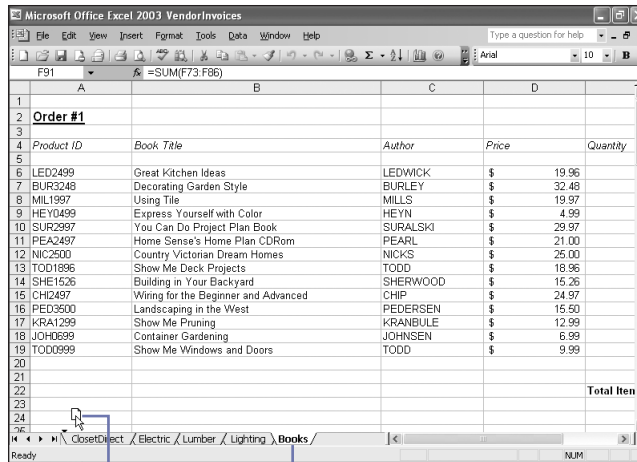
- 1 Click the sheet tab of the worksheet you want to move, and then hold down the mouse button.
- 2 When the mouse pointer changes to a sheet of paper, drag it to the right of the sheet tab where you want to move the worksheet.
- 3 Release the mouse button.

Did You Know?

You can use the Create A Copy check box to move a worksheet. Clear the Create A Copy check box in the Move Or Copy dialog box to move a worksheet rather than copy it.

You can give your worksheet a different background. Click the tab of the sheet on which you want to insert a background, click the Format menu, point to Sheet, and then click Background. Select the picture you want to use as a background, and then click Insert.

After adding several sheets to a workbook, you might want to reorganize them. You can arrange sheets in chronological order or in order of their importance. You can easily move or copy a sheet within a workbook or to a different open workbook. Copying a worksheet is easier and often more convenient than reentering similar information on a new sheet. If you are moving or copying a worksheet a short distance, you should use the mouse. For longer distances, you should use the Move Or Copy Sheet command on the Edit menu.



Copy a Worksheet

- 1 Click the sheet tab of the worksheet you want to copy.

TIMESAVER Press and hold the **Ctrl** key while you drag a sheet name to copy a worksheet.

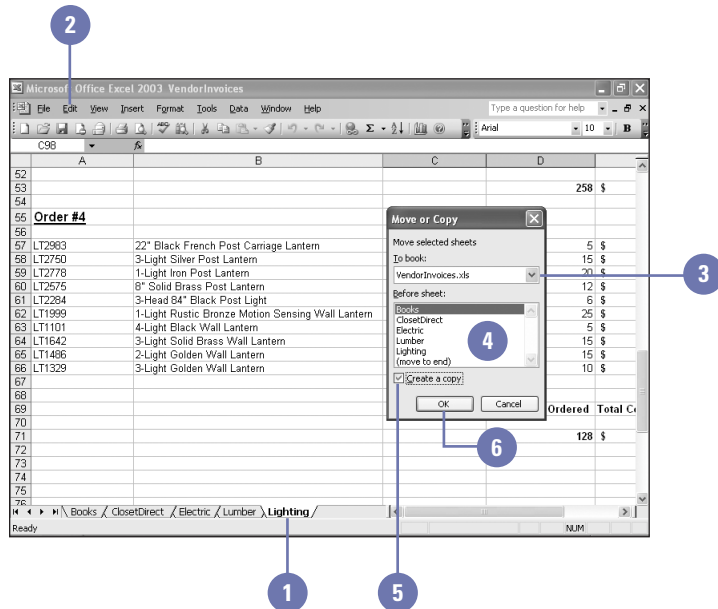
- 2 Click the Edit menu, and then click Move Or Copy Sheet.
- 3 If you want to copy the sheet to another open workbook, click the To Book list arrow, and then select the name of that workbook. The sheets of the selected workbook appear in the Before Sheet list.

TROUBLE? If the workbook you want to copy to does not show up in the To Book drop-down list, you must first open the other workbook.

- 4 Click a sheet name in the Before Sheet list. Excel inserts the copy to the left of this sheet.
- 5 Select the Create A Copy check box.
- 6 Click OK.

Did You Know?

You can use groups to affect multiple worksheets. Click a sheet tab, press and hold the **Shift** key, and click another sheet tab to group worksheets. Right-click a grouped sheet tab, and then click Ungroup Sheet on the shortcut menu.



Hiding and Unhiding Worksheets and Workbooks

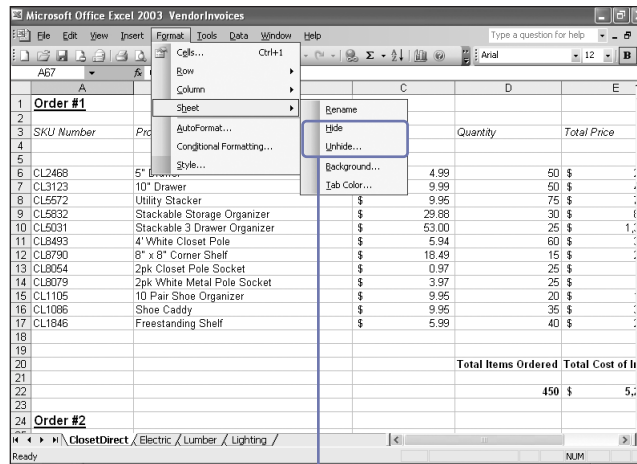


XL03S-3-4, XL03S-5-6

Hide or Unhide a Worksheet

- ◆ **Hide.** Click the sheet tab you want to hide, click the Format menu, point to Sheet, and then click Hide.
- ◆ **Unhide.** Click the Format menu, point to Sheet, click Unhide, select the worksheet you want to unhide, and then click OK.

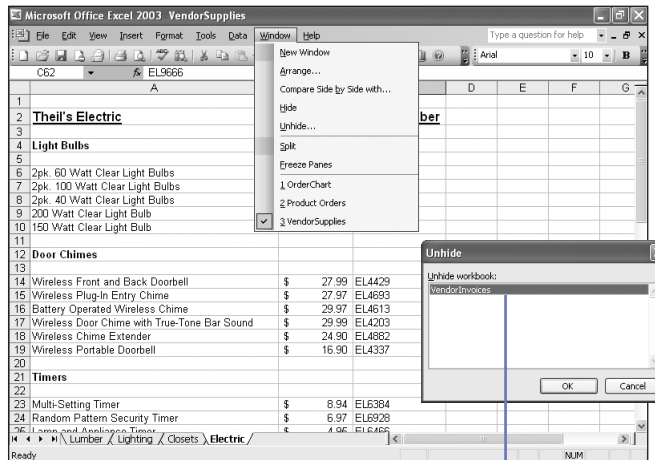
Not all worksheets and workbooks should be available to everyone. You can hide sensitive information without deleting it by hiding selected worksheets or workbooks. For example, if you want to share a workbook with others, but it includes confidential employee salaries, you can simply hide a worksheet. Hiding worksheets does not affect calculations in the other worksheets; all data in hidden worksheets is still referenced by formulas as necessary. Hidden worksheets do not appear in a printout either. When you need the data, you can unhide the sensitive information.



Click to hide or unhide a worksheet.

Hide or Unhide a Workbook

- ◆ **Hide.** Open the workbook you want to hide, click the Window menu, and then click Hide.
- ◆ **Unhide.** Click the Window menu, click Unhide, select the workbook you want to unhide, and then click OK.



Select a workbook to unhide it.

Splitting a Worksheet in Panes



XL03S-5-6

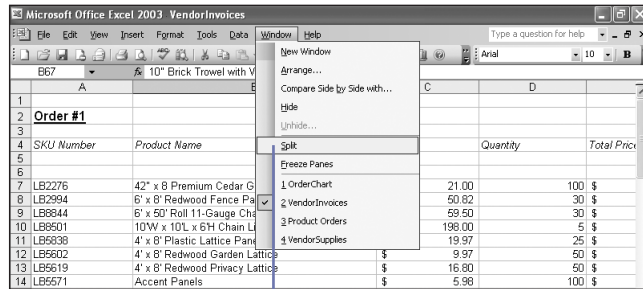
Split a Worksheet in Panes

- ◆ **Split.** Click the Window menu, and then click Split.
- ◆ **Remove Split.** Click the Window menu, and then click Remove Split.

Did You Know?

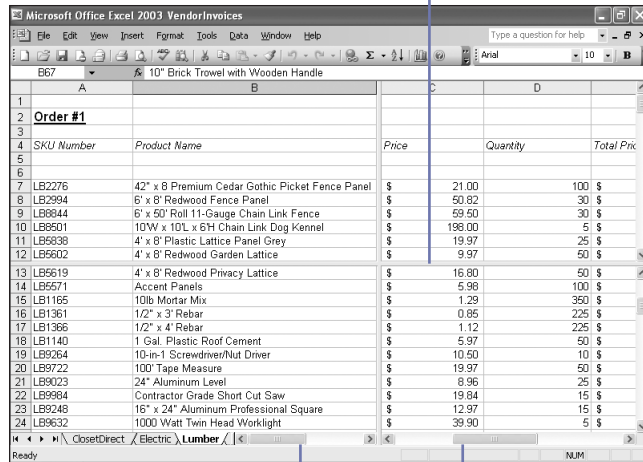
You can search for a value or data in a cell and then replace it with different content. Click the cell or cells containing content you want to replace. Click the Edit menu, click Find, and then click the Replace tab for additional options.

If you are working on a large worksheet, it can be time consuming and tiring to scroll back and forth between two parts of the worksheet. You can split the worksheet into four panes and two scrollable windows that you can view simultaneously but edit and scroll independently. As you work in two parts of the same worksheet, you can resize the window panes to fit your task. Drag the split bar between the panes to resize the windows. No matter how you display worksheets, Excel's commands and buttons work the same as usual.



Click to split the worksheet.

Worksheet split into four panes



Scroll panes separately.

Freezing Panes



XL03S-5-6

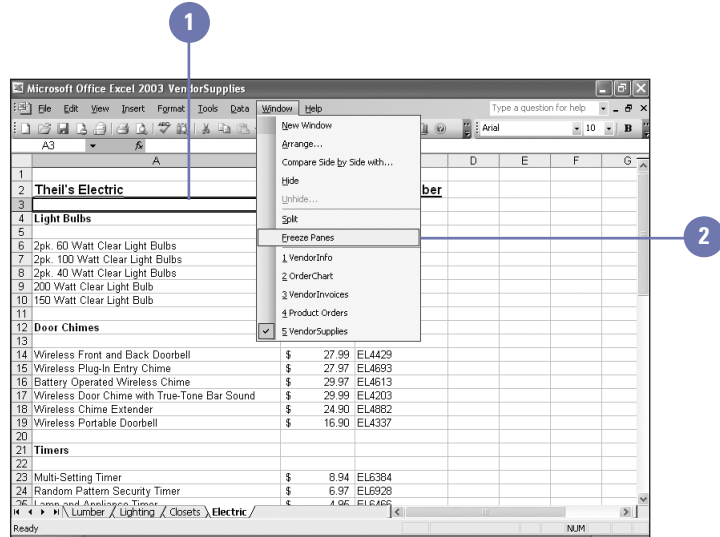
Freeze Columns and Rows

- 1 Click the cell that intersects the rows and columns you want to remain visible on the screen.

To freeze panes from a split window, skip step 1.

- 2 Click the Window menu, and then click Freeze Panes.
- 3 Edit and scroll the worksheet as usual.

Once you've finished creating the worksheet structure—labels and formulas—you're ready to enter data. The first six columns and twelve rows or so are just fine, but as you scroll to enter data in later columns or rows, the labels for the column headings shift out of view. Instead of memorizing the headings, freeze the label columns and rows so they remain visible as you scroll through the rest of the worksheet. You can freeze a row, a column, or a pane from a split worksheet.



Unfreeze Columns and Rows

- 1 Click the worksheet that you want to unfreeze.
- 2 Click the Window menu, and then click Unfreeze Panes.

