

# Excel® 2007



## Spreadsheets made simple.

The newest version of Microsoft's spreadsheet software, Excel 2007, combines all the long-standing features of Excel with powerful new capabilities. Whether you're entirely new to Excel or simply upgrading, discover how to:

- Navigate the new and improved Excel 2007 interface with fluency
- Create, format, sort, and print spreadsheets and workbooks
- Insert formulas, functions, charts, graphs, and more

### The Excel 2007 Interface

Microsoft Excel® 2007 is a spreadsheet program designed for computers that run on the Microsoft Windows® operating system. Along with the other programs in the Microsoft Office® 2007 Suite, the 2007 version of Excel has been significantly revamped. With this program, Microsoft has made the user interface more powerful yet simpler to use. The Excel 2007 interface has four basic parts:

- Office button
- Ribbon
- Quick Access Toolbar
- Help button

#### The Office Button

The **Office button** is a round button with the Microsoft Office® insignia on it. Clicking it reveals commands that resided in the File menu in earlier versions of Excel.

#### The Ribbon

The **Ribbon** is the core of the new Excel interface. It replaces the drop-down menus and toolbars of previous versions of Excel and organizes and displays the myriad functions that Excel provides more effectively than the old menus or toolbars did. The Ribbon makes it easier for you to find and use the commands you need in order to work with your spreadsheets. The Ribbon is made up of **tabs** and **groups**.

#### Tabs


**Tabs** are the main organizational categories for Excel commands. When you click on a tab, the commands within that tab appear on the Ribbon. Excel 2007 has seven main tabs:

- **Home:** These are the most commonly used Excel commands.
- **Insert:** These commands are used to insert elements such as graphs and charts into your spreadsheet.
- **Page Layout:** These commands control the visual presentation of your spreadsheet.
- **Formulas:** These commands add to your spreadsheet specialized formulas that perform particular functions.
- **Data:** These commands are for sorting, summarizing, or otherwise working with data in your spreadsheet.
- **Review:** These commands are for collaborating, proofing, and protecting a spreadsheet from tampering.
- **View:** These commands change how you can view your spreadsheet on the screen, as well as hide or show particular tools you may or may not want to use.


#### Groups

The commands displayed within each tab are further organized into smaller **groups**. For instance, the **Home** tab has the groups **Clipboard**, **Font**, **Alignment**, **Number**, **Styles**, **Cells**, and **Editing**. Some groups also have a little square at their bottom right, called a **dialog box launcher** (or **launcher** for short). Clicking the launcher pops up a dialog box that provides more tools in the category that the group covers.

#### Quick Access Toolbar

The **Quick Access Toolbar** spans the top of the Excel window and contains the commands you use most often, such as **Save**, **Undo**, and **Redo**. It's visible no matter which tab you've selected. You can customize the commands that appear on the toolbar by selecting a command from the menu that appears when you click on the down arrow  at the toolbar's right.

#### Help

You can access Excel's built-in help system through the **Help** button  or by pressing F1 on your keyboard.

#### The Excel Work Area

Though the interface has been overhauled, the Excel 2007 work area looks and works much the same as in previous versions of Excel. The work area has three main parts:

- **Spreadsheet:** This grid of columns (labeled by letter or letter combination, starting with A) and rows (labeled by number, starting with 1) displays the spreadsheet you're currently working on.
- **Name box:** This lists the current **active cell** by column and row letter. If the top left cell is the active cell, A1 will appear in the Name box.
- **Formula bar:** This lists the contents of the active cell, whether text, a number, an equation, or a formula.



### Keyboard Shortcuts in Excel 2007

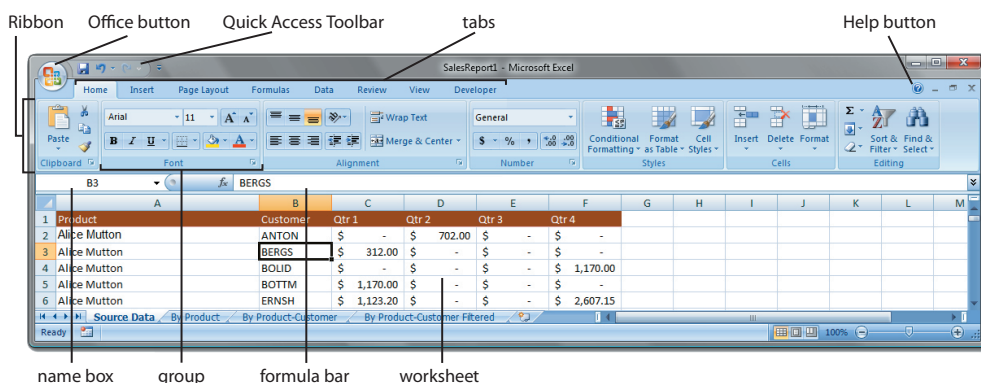
**Keyboard shortcuts** are combinations of keystrokes that let you execute commands more quickly than with a mouse. Keyboard shortcuts from previous versions of Excel, such as Ctrl+S to save and Ctrl+B to bold, also work in Excel 2007.

This guide includes the Excel keyboard shortcuts associated with any commands covered in the guide, but it does not cover *all* of the hundreds of keyboard shortcuts that are possible in Excel. *For an organized quick reference of all of the keyboard shortcuts in Excel 2007, see the Quamut guide to Excel 2007: Keyboard Shortcuts, available in Barnes & Noble bookstores and online at [www.quamut.com](http://www.quamut.com).*

#### How To Customize Keyboard Shortcuts

You can create new shortcuts or modify existing shortcuts by recording actions as a **macro**. To record a macro:

1. Click the **Record Macro** icon  located at the bottom left of the Excel window.
2. The Record Macro dialog box opens. Give the macro a name and assign it a shortcut key. The "Store Macro in" field should say Personal Macro Workbook. Click OK.
3. Go to the View tab. At the far right, click the Macro drop-down and select Use Relative References.
4. Do the action for which you'd like to make a shortcut.
5. Click the Stop Record button  at the bottom left of the main Excel window.
6. To use the macro, press the shortcut key you assigned to it in step 2.



### How to Control Excel Using the Keyboard

Along with keyboard shortcuts, Excel 2007 provides a keyboard system for executing most Excel commands. This system is based on the **Alt** key. Press the key and little letters and numbers appear next to the various tabs or commands on the screen. Hit the appropriate key (or keys) to use the marked command. For instance, to get to the Ribbon's Home tab, you'd type Alt+H. Once there, a new set of letters and numbers appears that marks the Home tab commands. Hit those keys to enact those commands. To make the shortcut numbers and letters disappear, hit the Alt key again.

Alt-key commands can involve anywhere from two to five keystrokes and may overlap with traditional keyboard shortcuts. For instance, you can save an Excel file using Ctrl+S or Alt+F, S.

## How to Create New Spreadsheets and Open Existing Spreadsheets

To get started working in Excel, you first have to know how to create a new spreadsheet or open an existing one.

### How to Create A New Excel Spreadsheet

You can create an Excel spreadsheet from:

- A blank spreadsheet
- A template
- An existing spreadsheet

#### How to Create a Blank Spreadsheet

Creating a new spreadsheet in Excel is as simple as launching the program. When Excel starts, it automatically displays a blank spreadsheet. If Excel is already running and you'd like to open a new blank spreadsheet:

1. Click the Office button and select New (Ctrl+N).
2. The New Workbook dialog box opens. Select Blank and Recent from the left pane of the dialog box.
3. Select Blank Workbook and click Create.

#### How to Create a Document from a Template

If you don't want to build a spreadsheet yourself, you can use one of a wide variety of predesigned **templates** that have the appropriate formulas built into them. For instance, rather than use Excel to make an invoice from scratch, you may be able to use or modify an existing invoice template, resulting in less work and a more professional look. Just load a template that fits your needs and type right into it.

1. Click the Office button and select New (Ctrl+N).
2. The New Workbook dialog box opens. On the left side of the dialog box is a list of template categories. The category Installed Templates at the top of the list contains templates that are automatically installed on your computer when you install Excel. The other categories contain templates that you can download from [www.microsoft.com](http://www.microsoft.com) for free. When you select a template category, thumbnails of the available templates appear in the center pane of the window.

When you select a thumbnail in the center pane, a larger preview appears on the right side of the window.

3. Select the template and click Create for an installed template or Download for a not-yet-installed template.

#### How to Create a Document from an Existing Document

This option allows you to treat a document you've already created as a template: Excel creates a copy of the spreadsheet you select, and you just type over the text and data that's currently there.

1. Click the Office button and select New (or Alt+F, N).
2. The New Document dialog box opens. Select New from Existing.
3. The New Document dialog box now allows you to browse for the existing document.
4. Once you've found the document, click Create New.

#### How to Open an Existing File

To work on a file you've already created and saved:

1. Click the Office button and select Open (Ctrl+O).
2. The Open dialog box opens. Browse for the file.
3. Once you've found the file, double-click to open it, or select it and click Open at the bottom of the dialog box.

#### Compatibility with Older Excel Files


Excel 2007 can open any Excel spreadsheet created in older versions of Excel.

## How to Save and Close an Excel Spreadsheet

Though Excel 2007 is less prone to crashes than previous versions, it's still a good idea to save your work often.

#### How to Save Your Excel Spreadsheets

You can save your work in Excel using one of two commands: **Save** or **Save As**.

- **Save:** This command saves an existing file under the same name. Open the Save As dialog box (see below) for a file you haven't yet saved. Access the Save command through the Office button menu, the **Save** icon on the Quick Access Toolbar  or using the keyboard shortcut Ctrl+S.
- **Save As:** This command allows you to save an existing file under a new name while preserving the original file under the old name. For example, you can use Save As to save different drafts of a spreadsheet you're creating. Access the Save As command through the Office button menu. A Save As dialog box will appear; it will allow you to give the file a name, choose a folder to house the file, and select a file type (explained below).

#### File Types in Excel 2007

As opposed to the .xls files produced by old Excel versions, Excel 2007 saves files as either **.xlsx**, **.xlsb**, or **.xlsm** files.

- **.xlsx:** This is the default file type used by Excel to save a regular-sized document that does *not* contain **macros** (programming code included in an Excel file).
- **.xlsb:** Similar to .xlsx in that it doesn't allow macros, this file type is designed for saving very large spreadsheets.
- **.xlsm:** This is the file type used by Excel to save documents that *do* contain macros.

Microsoft made this change in part to stop hackers from exploiting macros to spread malicious software. If you receive a .xlsx or .xlsb file, you can feel comfortable opening it—but be suspicious of .xlsm files from unknown sources.

#### Compatibility and Excel's New File Types

Older versions of Excel can't open .xlsx, .xlsb, or .xlsm files. To save files compatible with older versions of Excel, use the **Excel 97–2003** file type. When you save a file in this format, Excel also runs a check to make sure that your spreadsheet doesn't contain any formulas or other items that previous Excel versions don't support.

#### How to Close a Spreadsheet in Excel 2007

To close a spreadsheet, choose Close from the Office button menu or press Ctrl+W.

## How to Navigate an Excel 2007 Spreadsheet

To work effectively in Excel, it's helpful to know how to navigate around the Excel work space. You can navigate around a spreadsheet in two main ways:

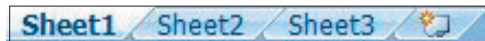
- Scroll by moving the right and bottom scrollbars with your mouse.
- Use keyboard commands to move the active cell around the spreadsheet.

To move . . .	Press . . .
Down one cell	Enter
One cell to the right	Tab
One cell up, down, left, or right	Arrow Keys
To the edge of the data region	Ctrl+Arrow Key
To column A in the current view	Home
To cell A1	Ctrl+Home
To the last cell in the spreadsheet containing data or text	Ctrl+End
Up one screen	Page Up
Down one screen	Page Down
Left one screen	Alt+Page Up
Right one screen	Alt+Page Down

You can also move to a specific cell in a spreadsheet by typing the cell's column and row number into the Name Box.

### How to Navigate Between Spreadsheets

An Excel document is also called a **workbook** because it contains more than one spreadsheet. You can navigate between different spreadsheets in a workbook by using the **spreadsheet tabs** at the bottom left of the Excel window.



To move from one spreadsheet in a workbook to the next, just click on the spreadsheets tab.

### Other Uses for the Spreadsheet Tabs

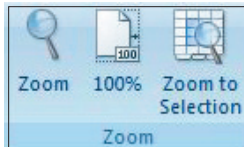
In addition to navigation, you can use the spreadsheet tabs to perform a number of other actions:

- **Rename a spreadsheet:** Either double-click the tab or right-click the tab and then choose Rename from the shortcut menu.
- **Insert a new spreadsheet:** Click the **New Spreadsheet** tab or double-click a tab and choose Insert from the shortcut menu. The new Spreadsheet tab will appear to the left of the tab that you right-clicked.
- **Delete a spreadsheet:** Right-click the Sheet tab and choose Delete. When you delete a spreadsheet, all data (if any) in that spreadsheet is lost.
- **Rearrange the order of a spreadsheet:** You can reorder the tabs by clicking and dragging them.
- **Move or copy a spreadsheet:** Right-click the tab and choose Move or Copy. You can choose to move the tab within the existing workbook or to another open workbook. To copy rather than move the tab, click the Create a Copy box in the Move or Copy dialog box.

### How to Zoom in Excel

Because Excel spreadsheets can get very large, it's helpful to be able to zoom in on a particular area of the spreadsheet to do detailed work or zoom out to get a better sense of the big picture. Excel gives you two ways to zoom: the **zoom group** and the **zoom slider**.

- **Zoom group:** You can use the buttons on the zoom tab to zoom in on selected cells, zoom to a 100% view of the spreadsheet (the size it will be when printed), or click on the magnifying glass to open the zoom dialog box, which has more zooming options.



- **Zoom slider:** This is a sliding bar located at the bottom right of the Excel window. Click on the "+" or "-" or drag the slider to zoom in or out.

## Basic Cell Operations in Excel

A **cell** is the intersection of a particular row and column on an Excel spreadsheet. Each cell has a unique **cell address**, composed of the column letter and row number. At least one cell in the spreadsheet is always selected, or **active**; this cell is indicated by a thick border called the **cell pointer**. For instance, in the image below, the active cell is B3.

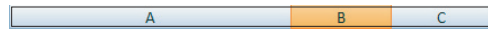
	A	B	C
1	Product	Customer	Qtr 1
2	Alice Mutton	ANTON	\$ -
3	Alice Mutton	BERGS	\$ 312.00
4	Alice Mutton	BOLID	\$ -

A group of selected cells is called a **range**. To refer to a range in Excel, you need to use a particular syntax: write the first cell in the range, then a colon, then the last cell in the range. A range can cover just one column or row, or multiple columns or rows. For instance, the range A10:A15 includes cells A10, A11, A12, A13, A14, and A15, whereas the range A10:B12 includes the cells A10, A11, A12, B10, B11, and B12.

### How to Select Cells and Ranges

There are several ways to select a cell or group of cells in a spreadsheet:

- **To select a cell:** Click the cell or use the arrow keys on the keyboard to move the cell pointer to the cell.
- **To select a range of cells:** Click and hold on the first cell in the range, then drag over the cells you'd like to select in the range.
- **To select noncontiguous cells or ranges:** Select the first cell or range, then hold Ctrl while selecting others.
- **To select all the cells in a column or row:** Click the heading button. The **heading button** is the letter label for the column or number label for the row reside.



- **To select multiple rows or columns:** Click and drag across the headings of the columns or rows you'd like to select.
- **To select noncontiguous columns or rows:** Select the first column or row, then hold Ctrl while selecting other columns or rows.
- **To select the entire workbook:** Click the **spreadsheet selector button** (located just above the row 1 heading button) or hit Ctrl+A.

### How to Enter and Edit Data in a Cell

To enter data in a cell, select the cell and type in the data you wish to display. To move to another cell after entering data, press Enter, Tab, or an arrow key, or select another cell with your mouse.

### How to Edit Data in a Cell

To edit data that's already been entered in a cell, select the cell and then either double-click the cell or click in the formula bar (see The Excel 2007 Interface).

### AutoComplete

Whenever the text you enter in a cell matches text previously typed into another cell in the same column, an Excel feature called **AutoComplete** pops up a tiny window containing the text that Excel thinks you may want to enter in the cell:

- If the AutoComplete text is what you want to enter in the cell, hit Enter.
- If the text you want to enter does not match the suggested text, just keep typing—the AutoComplete suggestion will disappear.

### How to Delete Cell Contents

To delete the contents of a cell, select the cell (or range of cells) and press the Delete key on the keyboard.

### How to Cut, Copy, and Paste Data

To **cut** or **copy** data from one cell and **paste** it into another, select the cell you'd like to cut or paste, then use the appropriate keyboard shortcuts or Ribbon icons.

Command	Icon	Location	Shortcut
Cut		Home > Clipboard	Ctrl+X
Copy		Home > Clipboard	Ctrl+C
Paste		Home > Clipboard	Ctrl+V

You can cut or copy multiple cells at once by selecting a range and then hitting the icon or keyboard shortcut. To paste a range, either highlight the number of cells in the range or select the cell you'd like to be the top left corner of the range after you paste it. Then paste.

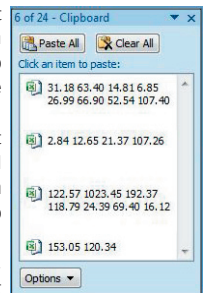
### How to Cut or Copy Some of the Text in a Cell

If you want to cut or copy only some of the contents of a cell, double-click the cell or click in the formula bar, and

highlight the text by clicking and dragging with the mouse or by holding Shift+Arrow Key. Then use the keyboard shortcuts or Ribbon icons to cut or copy.

### The Clipboard

The **clipboard** allows you to cut or copy multiple items and then select which items to paste. To open the clipboard, click on the launcher at Home > Clipboard. Once opened, every time you cut or copy content, that content will appear in the clipboard. Click on the content in the clipboard to paste it into the active cell.



If you like using the clipboard, you can use the options menu at the bottom of the clipboard window to set it so it opens automatically when you start Excel.

### How to Use Undo, Redo, and Repeat

The Undo command allows you to reverse the last action you took in your workbook, while Redo will restore the action you just undid.

Command	Icon	Location	Shortcut
Undo		Quick Access Toolbar	Ctrl+Z
Redo		Quick Access Toolbar	Ctrl+Y

Excel keeps a history of your most recent actions, allowing you to undo a series of changes. To access this history, click the down arrow next to the Undo icon, then select the actions you want to undo. You can redo a series of actions in the same way. Note that when you undo or redo an action using the down arrow, you also undo or redo *all* of the actions taken after that action.

### Repeat

If you haven't undone any actions, a **Repeat** icon takes the place of the Redo icon. Clicking the icon or hitting Ctrl+Y repeats the last action you performed.

### How to Find and Replace in Excel

Excel 2007 lets you search for text or specific formatting within your workbook and to replace it with other text or formatting using the **Find and Replace** dialog box. To open the dialog box, click the **Find and Select** icon at Home > Editing or hit Ctrl+F. To search for a term, just enter the term in the Find What field and click Find Next or Find All. The former will highlight the next cell that contains the term, while the latter will generate a list of all instances of the term.

You can refine your search further by clicking on the More Options button, which will give you access to commands that allow you to specify a format or case to search for, look only for cells whose entire contents match your search term, or choose to search a single spreadsheet or an entire workbook.

## Excel Formulas and Functions

Excel lets you perform calculations in order to analyze and work with the data in an Excel spreadsheet. You can perform calculations in two basic ways:

- **Simple formulas:** Use only addition, subtraction, multiplication, or division to work with data.
- **Functions:** Use powerful mathematical formulas built into Excel to perform higher-level calculations.

### How to Write Simple Formulas in Excel

You can write **simple formulas** to evaluate a complete mathematical expression within a single cell or build an expression that relates the data contained in multiple cells.

**How to Write a Simple Formula in a Single Cell**

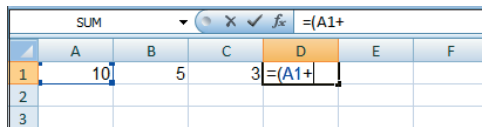
Writing a simple formula that does not reference the data in other cells is similar to using a calculator. You type in a mathematical expression, and Excel calculates the answer.

1. Select the cell where you'd like the answer to appear.
2. Type the = sign. (All formulas in Excel must begin with an = sign.)
3. Type in a mathematical equation using + (plus), - (minus), \* (multiplied by), / (divided by), or ^ (to the nth power) and parentheses to mark the order of operations, as necessary. For instance, you could write out the expression =(10+5)\*3.
4. Press Enter. The cell will show the answer to the mathematical expression (45 for the above example).
5. To edit the mathematical expression, select the cell and click in the formula bar or double-click in the cell.

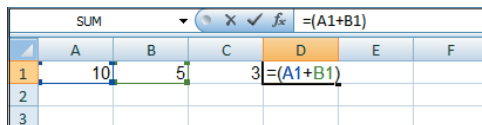
**How to Write Simple Formulas Involving Multiple Cells**

The real power of Excel is that it allows you to write mathematical expressions that refer to the data in other cells.

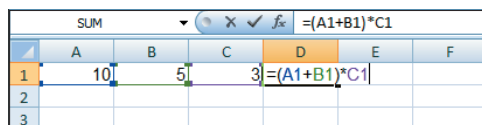
1. Select the cell in which you'd like the answer to appear.
2. Type the = sign to start the formula.
3. Click the cell that contains the first number upon which you want to perform the calculation, or write the cell's address.
4. Type an operation (+, -, \*, /, ^) or a parentheses to define the order of operations.



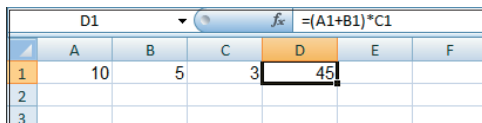
5. Click the cell that contains the second number that figures into the formula.



6. Repeat steps 4–5 (if needed) until you've included all the cells you need into the formula.



7. Press Enter.



**How to Use Functions in Excel**

**Functions** are predefined mathematical formulas built into Excel. Each function allows you to perform a specific operation. Excel contains over 300 functions, ranging from basic functions to complex functions used in statistics. Some of the most popular Excel functions include:

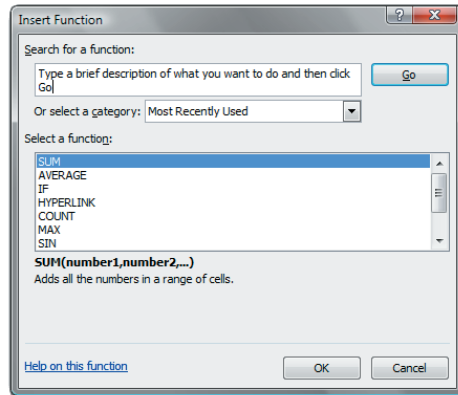
- **SUM:** Calculates the sum of a range of cells
- **AVERAGE:** Calculates the average of a range of cells
- **COUNT:** Counts the number of cells in a range that contain a number
- **COUNTA:** Counts the number of cells in a range that contain either text or a number
- **MIN:** Identifies the smallest number in a range of cells

- **MAX:** Identifies the largest number in a range of cells

To use a function, you must first type an = sign into the cell, then type the function's name (such as SUM or AVERAGE), and then enter the **arguments**—the cells or range of cells on which the function should operate. The arguments are always contained within parentheses.

**How to Insert a Function**

If you know a particular function, you can type it right into a cell. If you're less familiar with a function (or functions in general) you're probably better off inserting functions using the **Insert Function** icon at Formula > Function Library. Clicking the icon opens the **Insert Function** dialog box.



The Insert Function dialog box allows you to search for a function by category (recently used, financial, logical, and so on) or by typing in a description. The dialog box also displays the correct format for writing the function you've currently selected. Once you've found the function that you want to use, do the following:

1. Click OK on the dialog box to insert the function into your spreadsheet. (Make sure to select the cell where you'd like the function to appear before you open the dialog box.)
2. The Function Arguments dialog box will open. This dialog box provides fields listed as Number 1, Number 2, and so on, into which you can enter the numbers or cells upon which you want to perform the function. You can enter either a single cell or a range of cells into one of these fields. To enter a cell or range of cells, type in the correct address, or, with your cursor still in the dialog box field, select a cell or range of cells on the spreadsheet with your mouse.
3. To make the selection process easier, you can click the Minimize button to minimize the dialog box so that only the field in which you're entering numbers is visible. You can bring the entire dialog box back into view by clicking the Maximize button .
4. When you've entered all the arguments on which you want the function to operate, click OK.

**How to Use the AutoSum Feature**

The **AutoSum** icon engages an Excel feature that makes it easier to insert a function into a spreadsheet. When you use AutoSum, Excel automatically selects the range of cells on which to operate.

- **If the selection is correct:** Press Enter to insert the function.
- **If the selection is incorrect:** Edit the range in the formula bar or in the cell itself.

Despite its name, you can use AutoSum to insert many different functions—not just the SUM function. By default, AutoSum is set to calculate the SUM of a range of cells, but you can change the function that AutoSum applies by

clicking on the down arrow beneath the icon. From the menu that pops up, you can then choose AVERAGE, COUNT, MIN, MAX, or More Functions.

**How to Use Excel's Fill Feature**

**Filling** is a copying feature that's unique to Excel. When you fill a formula from one cell to other cells, Excel automatically increments the formula, modifying the formula relative to its destination. For instance, if the cell A3 contained the formula =A1+A2, filling that formula to B3 would create the formula =B1+B2. In this way, the Fill feature allows you to insert a formula or function once, but apply it to a range of rows or columns.

**How to Fill a Formula**

1. Select the cell that contains the formula.
2. With your mouse, point to the **fill handle**, the small square at the bottom right corner of the active cell.
3. Drag the pointer to cover the destination cells, then release.

**How to Fill a Formula Without Incrementing**

For some formulas, you may not want certain cells referenced in the formula to increment when you fill. You can control how a particular cell is referenced in a formula by using a \$ sign. Placing the dollar sign before the letter in a reference will stop that reference from incrementing across columns, whereas placing it before the *number* will stop the cell reference from incrementing across rows. For instance, if the cell A3 contained the formula =\$A1+A2, filling that formula to B3 would create the formula =\$A1+B2. The first cell would not increment due to the dollar signs.

**How to Fill Dates**

The fill feature automatically increments dates, months, or days of the week. For instance, if a cell contains the date 8/25/07, filling the cell below it will result in a date of 8/26/07. To increment the fill by days, you can just drag the fill handle of the cell with the first date to cover the destination cells. If you right-click on the fill handle and then drag, when you release a pop-up menu will appear in which you can choose whether to increment by days, months, or years.

**How to Fill Formatting**

You can also use the fill feature to copy a cell's formatting (font, cell alignment, cell background color, and so on) to adjacent cells:

1. Select the cell with the format that you'd like to copy.
2. Right-click the cell's fill handle, then drag it over the destination cells.
3. When you release, choose Formatting from the menu that appears.

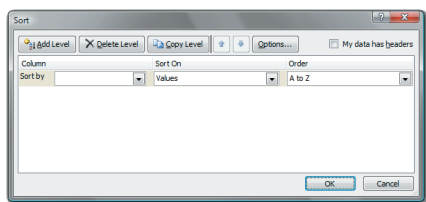
**How to Sort Data in Excel**

You can sort the data in your spreadsheet columns numerically or alphabetically based on the data in one or more of those columns. For instance, if you've created a spreadsheet that records employees' last names, salaries, and start dates, you could then sort all of those columns based on the data in one or more of the columns. In other words, you could sort the data alphabetically by last name, in order of seniority, or from highest to lowest salary.

**How to Sort By One Column**

Sort a spreadsheet of data according to the data in one column by doing the following:

1. Select all of the data on the spreadsheet.
2. Go to Home > Editing, and click **Sort & Filter** . In the menu that appears, select **Custom Sort**.
3. The Sort dialog box will open.



- In the Sort By drop-down menu, choose the column by which you want to sort the data. If you've written a descriptive header at the top of your column of data, make sure that the "My data has headers" check box at the top right of the window is checked and select the column based on its header. If your columns don't have headers, make sure the check box is unchecked and select the column based on its letter label.
- The Sort On drop-down menu lets you specify the information you'd like to use from the column as the basis for sorting. The drop-down menu lets you sort by values (the text or data in the cell), cell color, font color, or cell icon.
- Choose an order from the Order drop-down list. A to Z means ascending, and Z to A means descending.
- Click OK and all the data will sort based on the data in the column you selected.

### How to Sort By Multiple Columns

To refine a sort, sort by multiple columns. Open the Sort dialog box and fill out the first column to sort by, just as you'd do when sorting by one column. Then, for each additional column you'd like to use to sort the data, click **Add Level**. A new set of drop-down menus will appear; make selections from these menus to choose the second column to sort by. Note that each column selected takes precedence over the next. So if you sorted by salary and then by start date, the start-date sorting would come into play only if two employees had the same salary.

## How to Format Cells in Excel

You can improve the presentation of the information in a spreadsheet by setting the way text and numbers are formatted in each cell. You can set different cell-formatting for different cells. To format text already in a cell, select the text within the cell and then apply the formatting. To format text before you type it, select the cells where the text will go and apply formatting before you add the text.

### How to Format Text and Cells

The commands at Home > Font on the Ribbon provide basic formatting options for text. They also allow you to define the borders and colors of a cell or range of cells.

#### Text Formatting Commands

Command	Icon	Shortcut
Font		Ctrl+D, Arrow Keys, Enter
Font size		Ctrl+Shift+P, Arrow Keys, Enter
Increase font size		Ctrl+Shift+>
Decrease font size		Ctrl+Shift+<
Bold		Ctrl+B
Italic		Ctrl+I
Underline		Ctrl+U (underline)

### Cell Border and Colors

Icons at Home > Font also let you set the **border background color** or **font color** for a cell or range of cells. Clicking directly on these icons applies the current color or border configuration. If you want to change the color or border, click on the arrow next to the icon—a menu pops up that lets you choose a specific color or which edges of a cell or range of cells should get a border. Select the option you want and it will automatically apply to the active cell or range of cells.

### How to Format Cell Alignment

You can format how text is aligned within a cell using the commands at Home > Alignment.

Command	Icon	Description
Align top		Aligns text or numbers at the top of the cell
Align middle		Aligns text or numbers in the middle of the cell
Align bottom		Aligns text or numbers at the bottom of the cell
Text orientation		Orients the text or numbers in a cell—vertically, horizontally, or at an angle in between
Left justify		Justifies the text or numbers against the left edge of the cell (Ctrl+L)
Center		Centers the text or numbers in the cell (Ctrl+C)
Right justify		Justifies the text or numbers on the right edge of the cell (Ctrl+R)
Decrease indent		Decreases the indent of the contents in the cell by one character each time you click it (Ctrl+Shift+M)
Increase indent		Indents the contents of the cell by one character each time you click it (Ctrl+M)
Wrap Text		If a cell contains more text than its size can display, Excel hides the additional text by default. To show the text, you have to widen the size of the cell. Wrap text changes this setting, wrapping text to a new line and increasing the height of the cell so all text is displayed.
Merge & Center		Merges two or more selected and adjacent cells, and centers any content within the new larger cell

### How to Format Numbers

The Number group on the Home tab makes it easy to format the numbers in your spreadsheets. Along with a drop-down menu **Accounting** that lets you apply the major Excel number formats to the active cell, the Number group provides various number formatting tools:

Command	Icon	Description
Currency style		Applies a currency style with a dollar sign before the number, two decimal places, and parentheses around negative numbers. The arrow next to the dollar sign opens a menu that provides more options for formatting currency.

Percent style



Applies a percent style that has no decimal places. For instance, if you applied this style to 0.17, Excel would display it as 17%.

Comma style



Places commas to delineate thousands, with two decimal places and parentheses around negative numbers

Increase decimal



Adds a decimal place to the number shown in the cell

Decrease decimal



Removes a decimal place from the number shown in the cell

Excel automatically rounds a number to however many decimals you have formatted it to have. For example, a cell that held the number 4.55 when formatted to have two decimals would hold 4.6 when formatted for one decimal, and just 5 when formatted to have no decimals.

### How to Copy Formats

To copy formatting from one cell to another, first select one or more cells that contain the formatting you want. Next, click the **Format Painter** icon in Home > Clipboard. Click in the cell or drag over the cells you'd like to format.

### Live Preview

Excel 2007 has a new feature called **Live Preview**, which, when you put your cursor over the options on any formatting drop-down menu, displays how a formatting change will look. If you like how it looks, choose the option by clicking it.

## How to Format Excel Spreadsheets

In addition to formatting individual cells or cell ranges, you can also format Excel spreadsheets in a variety of ways.

### How to Adjust Column Width or Row Height

You can adjust the width of a column or height of a row either automatically or manually.

- Automatically:** Adjusting the column width or row height automatically resizes the column or row to the smallest possible width or height that can still accommodate the cell with the largest data entry in that row or column. To do this, point your cursor at the right edge of the column heading or bottom of the row heading and double-click.
- Manually:** Adjusting the column width or row height manually takes more time, but gives you more control. To adjust a column or row manually, click at either edge of the column heading or row heading, then drag to the size you want.

If you see a cell filled with # signs, it means that the number is too long to fit in the column. Once you've increased the column width enough to accommodate the number, the number will appear.

### How to Insert Cells, Columns, or Rows

You can add an additional cell, a range of cells, or entire columns or rows to your spreadsheet.

#### How to Add Cells or Ranges of Cells

To add a single cell or a range of cells to your spreadsheet, first select a cell or range where you'd like to insert the new cell or range. Then either right-click the selected cell(s) and choose **Insert**, or click the drop-down arrow beneath the **Insert** icon at Home > Cells.


An Insert dialog box will open; it gives you the choice to make room for the new cells by shifting cells either to the right or down. Make your selection, then click OK.

### How to Add Rows or Columns

You can add a row or column by following the same steps you'd use to add a cell or range, but selecting Entire row or Entire column from the dialog box before clicking OK.

Alternatively, you can select a column or row by clicking on its heading, then right-clicking and choosing Insert. Excel will automatically insert a column to the left of the column you selected, or a row above the row you selected. To insert multiple columns or rows, select the number of columns or rows you'd like to insert, then right-click and choose Insert.

### How to Delete Cells, Columns, or Rows

You can delete cells, cell ranges, or entire columns or rows in the same way you inserted them: right-click the selected cells and choose Delete, or click the drop-down arrow beneath the **Delete** icon  at Home > Cells.

### How to Hide and Unhide Columns or Rows

You can hide columns or rows that you don't want to appear on a spreadsheet. A hidden column will not appear onscreen or when you print. The easiest way to hide a row or column is to select a column and right-click, and then choose Hide.

To unhide a hidden column or row, select the rows that surround the hidden row, right-click, and choose Unhide. To find the columns or rows that surround the hidden column or row, look for nonsequential labeling. For instance, if you've hidden column C, then columns B and D will be adjacent to each other.

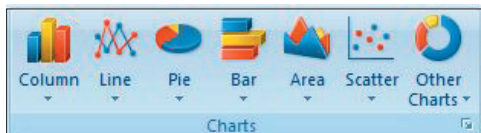
## How to Add Charts or Graphics to Excel Spreadsheets

In addition to presenting data numerically, Excel makes it easy to display data visually with charts and graphics.

### How to Create Charts in Excel

To create a chart in Excel 2007, follow these steps:

1. Select the cells you want to turn into a chart. Make sure to select both the text (used as labels) and numbers (used as data points).
2. Go to Insert > Charts on the Ribbon.



3. Select the type of chart you'd like—column, line, pie, bar, area, scatter, or other. Clicking the launcher on the group will pop up a menu that lets you look at all of your options in more detail.
4. Whichever type you choose, a drop-down menu will appear, offering you specific style options for that type of chart. Select the style you prefer.

When you make your selection, the chart will immediately appear in your spreadsheet (it may appear over your data, which isn't a problem since you can easily move the chart).

### How to Move or Resize a Chart

- **To move a chart:** Click and hold in the center of the chart, then drag the chart where you want it to go on the spreadsheet.
- **To resize a chart:** Click the chart, then bring the mouse pointer above one of the little squares, called **selection handles**, located at the chart's corners. Click and drag the selection handles to resize the chart.

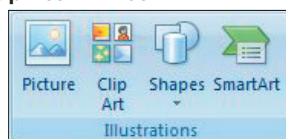
### How to Edit or Format a Chart

When you click on a chart, a **contextual tab**, called **Chart Tools**, appears on the Ribbon. This tab has three subtabs—**Design**, **Layout**, and **Format**—that contain commands that help you make the look chart exactly how you want it.

- **Design:** The Design tab provides tools that let you adjust the data range used to create the chart, change the chart type you've selected, change the style of the chart you've selected, or move the chart to another spreadsheet.
- **Layout:** The Layout tab lets you edit the particular elements of a chart, such as its title, axes, legend, and background.
- **Format:** The Format tab lets you change the look of the different elements in the table. Select the particular element by clicking it, then click the button you'd like to use in the Format tab.

### How to Insert Graphics in Excel

In addition to charts, Excel allows you to insert a variety of other graphical elements into a spreadsheet by using the **Insert > Illustrations**



group. The four main types of graphical elements that you can insert are:

- **Picture:** Digital images or scanned photos
- **Clip art:** Over 15,000 clip art illustrations
- **Shapes:** A gallery of predefined shapes, from lines to solids to arrows and beyond
- **SmartArt:** Predesigned combinations of words and art that allow you to create more complex graphical elements, such as **flowcharts** or **org charts**

Clicking any of these icons pops up an associated dialog box that you can use to select and insert the graphical element of your choice.

## How to Print Excel Spreadsheets

The print commands in Excel are accessible through the Office button menu. The Office button menu contains three options: Print, Quick Print, and Print Preview.


### Print

Choosing the **Print** command in the Office button menu (or clicking Ctrl+P) opens the Print dialog box. This option provides you with the most control or flexibility, as the dialog box allows you to:

- Specify the printer (if you have more than one)
- Print all or just part of a spreadsheet
- Print all the spreadsheets in a workbook
- Set a number of copies
- Set the resolution size

### Quick Print

**Quick Print** lets you print a document with one click. But Quick Print doesn't offer any flexibility—it will always print one copy of your entire spreadsheet. You can access Quick Print through the Office button menu, but it's faster to add Quick Print to the Quick Access Toolbar:

1. Click on the arrow at the right edge of the toolbar.
2. Select Quick Print.
3. A printer icon  will appear in the toolbar.

### Print Preview








**Print Preview** allows you to see in advance what your document will look like when it prints. It's particularly important to use Print Preview before printing in Excel, because many spreadsheets are wider than a typical printed page, resulting in awkward page breaks that make it difficult to read the data in the spreadsheet. To open Print Preview:

1. Go to the Office button menu.
2. Select Print, then select Print Preview.


If your spreadsheet looks the way you want it to in Print Preview, you can print by clicking the printer icon or exiting Print Preview and printing in the normal way.

### How to Format a Spreadsheet for Printing

If your spreadsheet doesn't look the way you want it to in Print Preview, there are a number of ways to fix the formatting of the spreadsheet using the commands at **Page Layout > Page Setup** on the Ribbon.

Command	Icon	Description
Margins		Lets you modify the margins of the page, perhaps squeezing in a data column that would otherwise get cut off
Orientation		Allows you to flip the printed page between <b>portrait</b> (8.5"×11") and <b>landscape</b> (11"×8.5") to best fit your spreadsheet
Size		Lets you set the page size or specify how many pages should fit on a single sheet of paper
Print area		Allows you to specify a certain area of the spreadsheet to be printed. If you've set a print area, that's what will print no matter what you do in the Print dialog box.
Breaks		Lets you set page breaks so that you—rather than Excel's default settings—decide where the breaks in your spreadsheet should occur
Background		Lets you add a background image to a spreadsheet
Print titles		Opens a dialog box that lets you specify certain rows that should print at the top of every page as title rows. This is especially useful if your columns of data are more than a page long, since someone reading the printed spreadsheet won't have to keep flipping to the first page to remember what the data in each row represents.

### Page Break Preview

In addition to the Breaks button, there's another way to set the breaks in an Excel spreadsheet to ensure that your columns of data break where you want them to—the **Page Break Preview** feature. To open this view, click on the Page Break Preview icon  at View > Workbook Views.

This view shows the default page breaks established by Excel as dark dotted lines on your spreadsheet. You can change these page breaks by clicking and dragging the page break lines to a new location.

### How to Print Gridlines and Column and Row Headings

By default, Excel doesn't print the gray **gridlines** or the letter or number headings for columns or rows that appear onscreen in spreadsheets. However, you can set Excel to print gridlines and/or column and row headings using the check boxes at **Page Layout > Sheet Options**. If you want the gridlines or headings to print, just click the Print box for each. If you wish, you can also use the check boxes to stop the gridlines or headings from appearing in print or onscreen.

