



## Hours

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## Introduction to Microsoft Excel 2007®

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Microsoft *Excel 2007* is a user-friendly spreadsheet program that helps to list and analyze data. Excel is most commonly used to create tables, graphs, and charts. There are several topics covered in this tutorial:

- basics
- entering data
- formatting
- formulas
- charts
- save & print

## Getting Started with Excel 2007

When the Microsoft Excel 2007 program is opened, a new spreadsheet will automatically open. An Excel spreadsheet file is called a workbook. The workbook is divided into worksheets, which are like different pages in a document.

The Ribbon is the “control center” of Microsoft Office 2007 software. It groups similar tasks together and makes items more visible for the user (see figure 1).

## Using the Ribbon

The ribbon in Excel 2007 contains all the basic functions that are used. The ribbon is separated into three categories (see figure 2):

1. Tabs: core commands
2. Groups: tasks that are similar are placed together within the tabs
3. Commands: specific tools located within the groups

To see more commands on the ribbon, click the Dialog Box Launcher (☰) on the bottom right corner of the group.

## Using the Microsoft Office Button

The Microsoft Office Button (🏠) is used to create, open, save, print, etc. workbooks in Excel 2007. It is located on the upper right-hand corner of the window.

To use, click on the button with your mouse then click on the task you wish to complete (See figure 3).

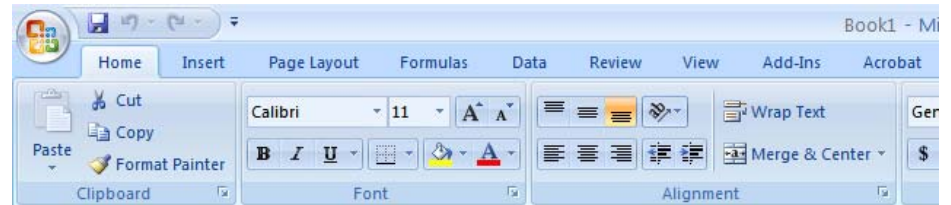


Figure 1 Ribbon

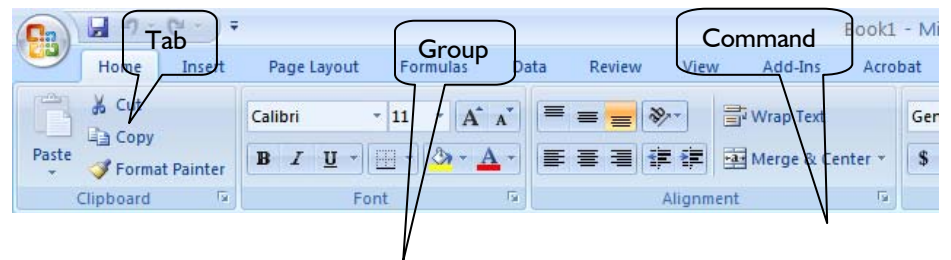


Figure 2 Elements of the Ribbon

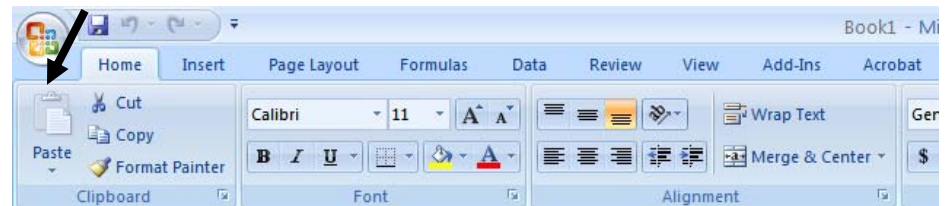


Figure 3 Microsoft Office Button

## Entering Data into Cells

Excel spreadsheets are divided into columns and rows. Columns are vertical (designated by letters) while rows run horizontal (designated by numbers). Each cell is given a name according to the corresponding column and row. For example, the cell that is selected when opening a new workbook is A1 (see figure 4).

Cells that only have numbers in them are referred to as “values.” These cells can be used as the basis for calculations from cells that contain formulas or functions (using formulas and functions will be discussed later). There are three steps to place numbers in a cell:

1. Select the cell where you want the number(s) to appear
2. Type the numeric information that should be in the cell
3. To accept the information, press [Enter] or an arrow key.

Cells that have text are referred to as “labels.” Information in a “label” cell cannot be used in formulas (see figure 5).

1. Select the cell where you want the number(s) to appear
2. Type the text that should be in the cell
3. To accept the information, press [Enter] or an arrow key.

**NOTE:** Excel automatically right aligns numbers and left aligns text. There can be no spaces or alphabetic characters in a calculation cell.

## Editing Data

There are two ways to edit cells; the one used depends on user preference:

1. Double-click on the desired cell.
- Or
2. Select the cell then click on the Formula Bar (see figure 6).

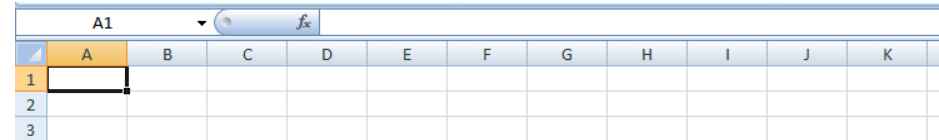


Figure 4 Rows and Columns

The image shows an Excel spreadsheet with a table of data. The columns are labeled A through I, and the rows are labeled 1 through 5. The data is as follows:

	A	B	C	D	E	F	G	H	I
1	Salesperson	June	July						
2	Chaney	34239	39224						
3	Ferraro	23240	28985						
4	Jimenez	56892	58450						
5									

Cell A4 is selected. A callout box labeled 'Label' points to cell B1, and another callout box labeled 'Value' points to cell C2.

Figure 5 Values and Labels

The image shows the same Excel spreadsheet as in Figure 5, with cell A4 selected. An arrow points from the top of the spreadsheet to the formula bar, which contains the text 'Jimenez'.

Figure 6 Formula Bar

## Formatting Spreadsheets

### Changing Text and Numbers Within Cells

1. Select the cell(s) you want to change by clicking on it with the mouse. (If you wish to change multiple cells' text, click on the top left cell, hold, and drag until all the cells are selected).
2. In the Home tab, Font group, select the desired text, size, color, style, and cell border (see figure 7).

### Changing Entire Tables

There are two commonly used ways to change tables:

1. Select the table to change by selecting all the cells within the table.
2. In the Home tab, Styles group, select the desired formatting using the three (3) commands.

Or

In the Home tab, Font group, select the desired background for the table, specific columns, rows, or cells (see figure 7).

### Formatting Numbers

Values can be enhanced in two ways:

1. Select the cell(s) that need to be enhanced.
2. In the Home tab, Styles group, click on "Cell Styles."
3. Select the desired style (see figure 8).

Or

1. Select the cell(s) that need to be enhanced.
2. In the Home tab, Number Group, select the desired options (see figure 8).

### Clear Formatting

1. Select the desired cell(s).
2. In the Home tab, Editing group, click on "Clear" and then "Clear Formatting" (see figure 9).

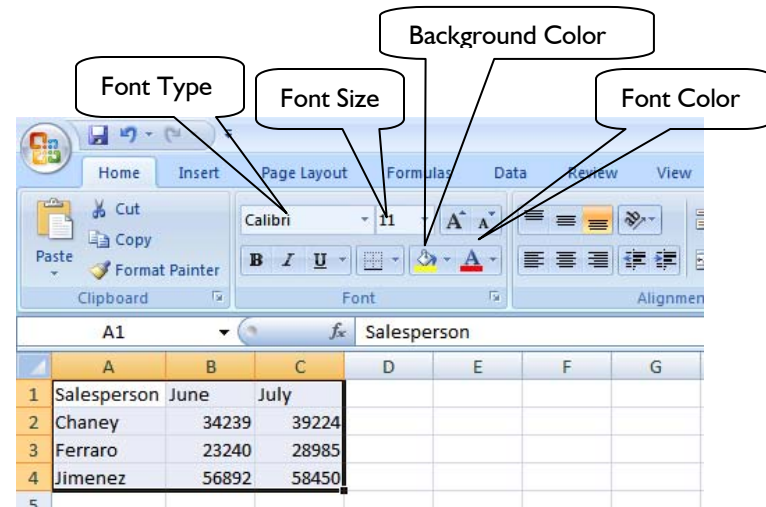


Figure 7 Font Group

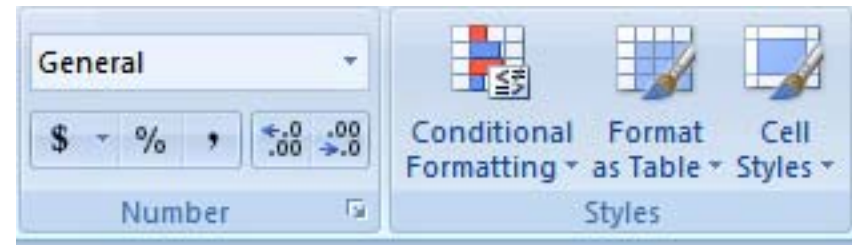


Figure 8 Number and Styles Group



Figure 9 Clear Formatting

## Moving Information

Often, your first approach to organizing your chart may not be the same as your final organization. For this reason, you may want to reorganize information. There are three methods that help you do this without having to recreate the entire spreadsheet.

### Drag & Drop

1. Select the cell(s) that need to be moved. Click the heavy border surrounding the cell(s).
2. Holding down the mouse button, drag the cells to the new location.
3. When you reach the new location, release the mouse button to drop the cell(s) (see figure 10).

NOTE: Drag & Drop is challenging for moving to cells that are not displayed on the current screen. An outline of the cell(s) you are moving will appear over the new location.

### Cut/Copy & Paste

1. Select the cell(s) that need to be moved or duplicated with Copy.
2. In the Home tab, Clipboard Group, click “Cut” or “Copy.”
3. Select the cell where you want the information to be pasted.
4. In the Home tab, Clipboard Group, click “Paste” (see figure 11).

### Fill Command

The Fill Command is used to repeat information for contiguous cells. For example, if the first cell contains a formula, the formula will be repeated in the additional cells or if the first cell contains text, the text will be repeated in the additional cells.

1. Select the cell(s) that contain information that you want to repeat.

	A	B	C	D	E	F
1	Salesperson	June	July			
2	Chaney	34239	39224			
3	Ferraro	23240	28985			
4	Jimenez	56892	58450			
5	Jimenez	56892	58450			
6						



Figure 11 Clipboard Group

Figure 10 Drag & Drop

2. Click and hold the Fill Handle.
3. Drag to select new cells in the range.

4. Release the mouse button (see figure 13).

## Working with Rows and Columns

When you start working on a spreadsheet, all columns are nine (9) characters wide and row heights are set to auto height. Depending on what you are working on, these settings may be perfect, too big, or too small.

NOTE: Auto height automatically adjusts to fit the content of the cell with a minimum of 14 points.

### Adjusting Row Height

1. Select any cell(s) in the row to be adjusted
2. From the Home tab, Cells group, select “Format.”
3. Click on “Row Height” so the Row Height dialog box appears.
4. In the dialog box, type the desired height.
5. Click OK (see figure 14).

### Adjusting Column Width

1. Select any cell(s) in the column(s) to be adjusted.
2. From the Home tab, Cells group, select “Format”
3. Click on “Column Width” so the Column Width dialog box appears.
4. In the dialog box, type the desired width
5. Click OK (see figure 14).

### Adding Rows

1. Select a cell **below** (for rows) or to the **right** for columns) of where you want to add a new row or column.
2. From the Home tab, Cells group, select “Insert”
3. Select “Entire row” or “Entire column.”
4. A new row is inserted above the selected cell or a new column is inserted to the left of the selected cell (see figure 16).

Figure 13 Fill Handle

Figure 14 Adjusting Row Height

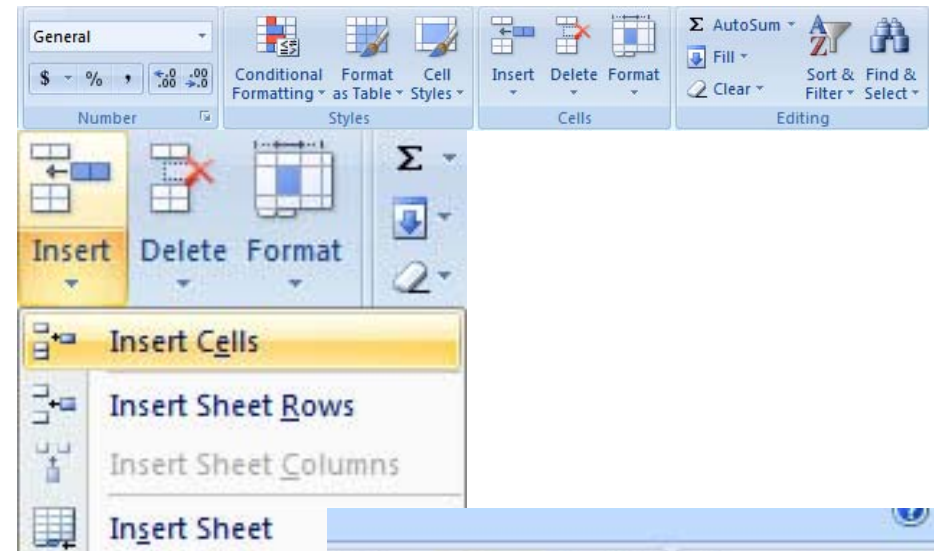
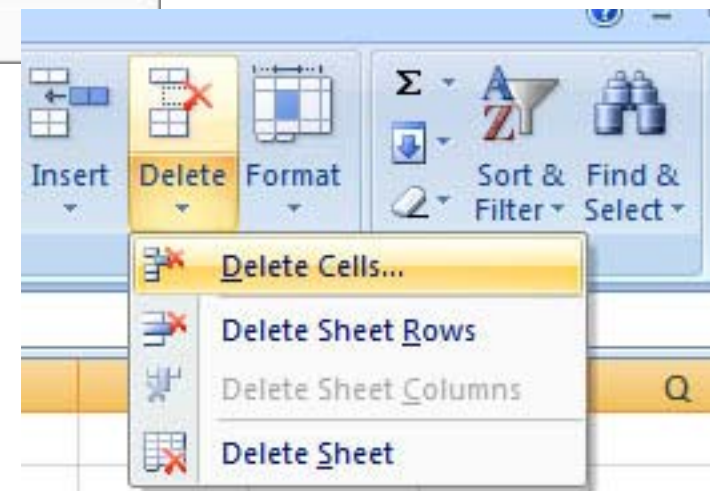


Figure 16 Adding Rows

### Deleting Rows and Columns

1. Select any cell from the row or column you



want to remove.

2. From the Home tab, Cells group, select “Delete.”
3. In the Delete box that appears, select “delete sheet rows” or “delete sheet columns.”
4. The selected row or column should be removed from the spreadsheet (see figure 17).

## Using Formulas and Functions

Excel formulas can include constant numbers or cell references. When entering your own formulas, the contents of the cell must begin with the equal sign (=) to represent the beginning of a formula or function. A colon (:) within the function indicates a range of cells to be in the formula or function. Functions are preprogrammed formulas. For example, the AVERAGE function will add numbers and count the number of items for you.

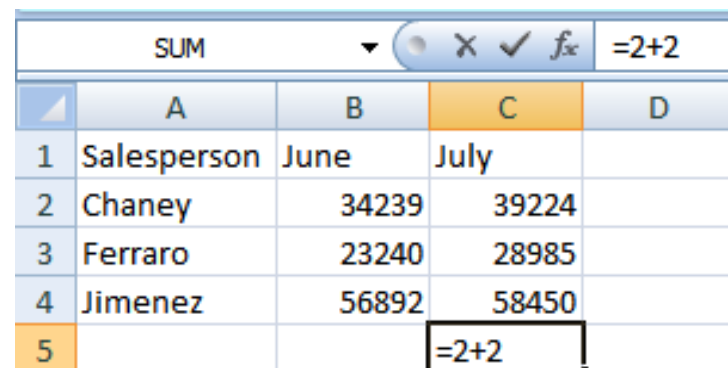
### Creating a Formula of Constants

A formula of constants may be appropriate for fixed values, or when you do not want to use a calculator (see table 1 for example).

1. Select the cell where you want the formula to appear
2. To begin the formula, press [=], the equal sign
3. Continue the formula by entering numbers and the operator
4. Accept the formula by pressing [enter] or an arrow key. The result of the formula should now be displayed in the cell (see figure 18).

NOTE: Constants should not be used when the value is likely to be changing. If the values may be changing, you should use a formula referencing a cell

Figure 17 Deleting Rows and Columns



	A	B	C	D
1	Salesperson	June	July	
2	Chaney	34239	39224	
3	Ferraro	23240	28985	
4	Jimenez	56892	58450	
5			=2+2	

Figure 18 Formula Constants

### Creating Formulas with Cell References

A formula with cell references should be used when values in the cells are changed. When cell values change, the result of the formula will be updated.

1. Select the cell where you want the formula to appear
2. To begin the formula, press [=], the equal sign
3. Continue the formula by entering numbers, cell references, and the operator
4. Accept the formula by pressing [enter] or an arrow key. The result of the formula should now be displayed in the cell (see figure 19).

	A	B	C	D
1	Salesperson	June	July	
2	Chaney	34239	39224	
3	Ferraro	23240	28985	
4	Jimenez	56892	58450	
5			=b2+c4	

Figure 19 Formulas with Cell References

### Writing Functions with the Formulas Tab

Determining what functions are available, what function you should be using, and what you need to include in the function is easier with the Function Library group in the Formulas Tab. You can find functions by clicking “Insert Function” and searching for a function or by selecting a category and a specific function listed in that grouping.

1. Select the cell where you want the formula to appear.
2. From the Formulas Tab, select “Insert Function” or the grouping the formula is in.
3. Select the function you want to insert.
4. Type the data to be in the function in the Function Arguments dialogue box.
5. Click OK (see figures 20).

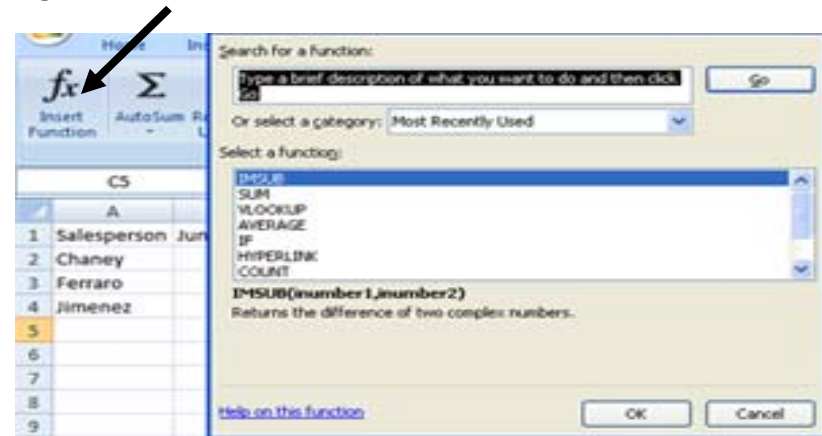


Figure 20 Formulas Tab


### Creating and Working with Charts

Charts help you show trends, comparisons, and patterns in data in a quick and efficient way. The text and numbers from a worksheet become the contents of a chart.

1. Select the data you want to chart
2. In the Insert tab, Charts group, select the type of chart you wish to use.
3. When a type of chart is selected, you will see different options to choose from. Choose the options that you want.
4. *Excel* will automatically create the chart for you (see figure 21).

**NOTE:** After creating the chart, you can always change the type of chart by clicking inside the chart, on the Design Tab under Chart Tools, in the Type group, click Change Chart Type.

There are two ways to add labels and titles to your chart:

1. In the Design tab, Chart Layouts group, select the More button (  ) to see all the layouts available.
2. Select the layout that you want for your chart. (Layout 9 adds placeholders for a chart title and axis labels).
3. Click inside the placeholders to type the labels.

Or

In the Layout tab, in the label group, add titles by clicking “Chart Titles and Axis Titles”.

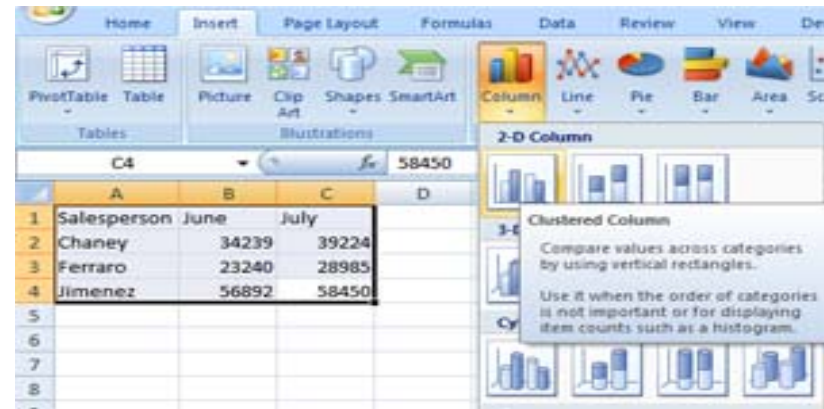


Figure 21 Creating and Working with Charts

## Saving a Workbook

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Once a workbook has gotten started, it is important to save it frequently to avoid losing any of your work. The “Save” and “Save As” commands are located under the Microsoft Office Button.

### Save As

If you are saving a workbook for the first time, select “Save As.”

1. Click the Microsoft Office Button.
2. Select “Save As.”
3. From the “Save in” drop down menu, select where you want the workbook to be saved.


NOTE: To help you locate the file in the future, use a descriptive file name.

### Save

Use the “Save” command to save a workbook that has already been named and saved. Saving can be done in two different ways.

1. Click the Microsoft Office Button.
2. Select “Save.”

Or

Select the “Save” icon () on the Quick Access Toolbar.

### Saving in Excel 2007 vs. Excel 2003

Older versions of *Excel* might have trouble opening workbooks that are created in *Excel 2007*. The file extension for 2007 is .XLSX, while the extension for older versions is .XLS. If you are going to be using a different computer that has the older *Excel* on it, it would be wise to save your workbook as a 97-2003 workbook. This will allow you to open the workbook in both versions of *Excel*.

1. Go to the Microsoft Office Button.
2. Select “Save As.”
3. Click on “Excel 97-2003 Workbook.”

NOTE: If you forget to save as a 97-2003 workbook, you may be able to download the Microsoft Office Compatibility Pack for 2007 File Formats available on the Microsoft Office website, [www.microsoft.com/downloads/](http://www.microsoft.com/downloads/)

## Printing

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*Excel 2007* gives you many options for printing. For the best choice, consider what you need the workbook to tell or show the reader.

### Printing data

1. Click on the Microsoft Office Button.
2. Select “Print,” the Print Dialog Box will appear.
3. Edit the desired settings, and click “Print”.

### Printing the Chart Only

1. Click on the chart to select it.
2. Click on the Microsoft Office Button.
3. Select “Print,” the Print Dialog Box will appear.
4. Edit the desired settings, and click “Print”.

### Printing the Chart and the Data

1. Adjust the chart size and position so you can see the chart and the data you want to print.
2. Click on the Microsoft Office Button.
3. Select “Print,” the Print Dialog Box will appear.
4. Edit the desired settings, and click “Print.”

### Printing Gridlines

1. Go the Page Layout tab.
2. Under the Sheet Options group, check the box next to print.
3. Click on the Microsoft Office Button.
4. Select “Print,” the Print Dialog Box will appear.
5. Edit the desired settings, and click “Print.”

## Printing Formulas

1. Go to the Formulas tab.
2. Under the Formula Auditing group, select show formulas.
3. Click on the Microsoft Office Button.
4. Select “Print,” the Print Dialog Box will appear.
5. Edit the desired settings, and click “Print.”

## Getting More Help

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1. Click on the question mark in the upper right corner of the screen, or press the F1 key to open the Help Menu.
2. Visit the Student Technology Center, located on the second floor of the Zahnnow Library, call 989.964.2299, or email [techtutor@svsu.edu](mailto:techtutor@svsu.edu)

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