



Excel made Easy



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What is Excel?

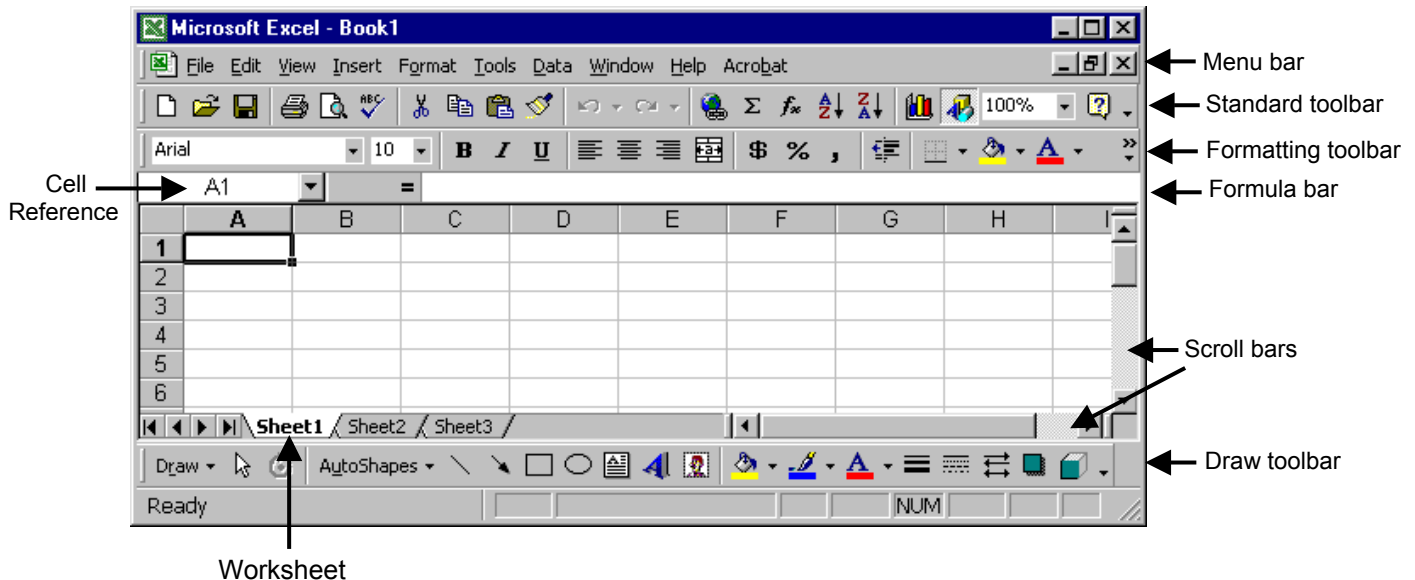
Excel is the spreadsheet application of the Office 2000 programs. A **spreadsheet** is a grid of rows and columns containing numbers, text, and formulas. The purpose of a spreadsheet is to solve problems that involve numbers. Besides calculating accurately and rapidly, spreadsheets are flexible. They can be easily changed without having to redo the whole spreadsheet. A spreadsheet can also be useful for displaying any kind of information in a columnar format.

I. The Excel Workbook

An Excel file is called a **workbook**. Each workbook contains 3 **worksheets** (but more can be added). The worksheets are named on a bottom tab (Sheet 1, Sheet 2, Sheet 3); however, you can rename them by *double-clicking* and typing a new name. To move through the worksheets, click the tabs.

Each worksheet consists of **rows** (identified with a number) and **columns** (identified with letters), which intersect at a **cell**. Every cell has an address that consists of the column and row (A1, B3, and so on). When a cell is selected it appears to have an outline.

Extra worksheets, rows, and columns can be added under **Insert** on the Menu bar.



Column headings are the letters across the top of the worksheet. **Row headings** are the numbers down the side of the worksheet. Select a row or column by clicking on its heading.

Menu bar contains text, which allows you to select commands.

Standard and Formatting toolbars contain buttons that provide quick access to common commands. (For more toolbars click **View... Toolbars** and check those desired. To move toolbars, click and drag the toolbar handle at the far left of the toolbar.)

Formula bar – when information is entered into a cell, it appears in the *Formula bar*.

Scroll bars and directional arrow keys allow you to move vertically or horizontally inside a worksheet.

Move from cell to cell in the following ways:

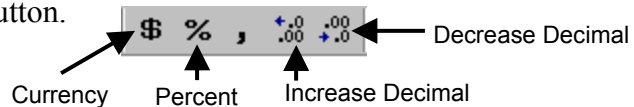
- Hit the **Enter** key to move down to the row below
- Hold down the **Shift** key, then hit the **Enter** key to move up to the row above
- Hit the **Tab** key to move over to the column to the right
- Hold down the **Shift** key, hit the **Tab** key to move back to the column to the left
- Move the cursor to any cell and click there
- Use the arrow keys to move up, down, left, or right.

II. Entering Data

Text is always left-aligned in a cell. Click inside the cell, type the text, and press enter. Notice the data appears in the **Formula bar**. If the text is too long for the cell, it will spill over into the next cell, as long as there is no data in that cell. To widen a column for data, *double-click* the right border of the column heading.

Text can also be wrapped in a cell. *Right-click* the cell and select **Format Cells**. Click the **Alignment** tab and click to check **Wrap text**. The column height will adjust to fit. Other alignment choices are available from this pop-up box, along with other formatting options.

When **Entering Numbers** it may be necessary to format the cell to have the number appear as you desire. To do so, *right-click* the cell and select **Format Cells**. Click the **Number** tab and select the number category you desire. If you enter a number and it appears in the cell as all pound sign (#####) it means the cell isn't large enough for the data. *Double-click* the right border of the column to resize it. Some number formatting options are available on the Formatting toolbar. Click to select the cell (or a whole column or row) and then click the appropriate button.



AutoComplete allows you to enter the same data without retyping it. When you begin typing data you have previously entered in the spreadsheet, it will automatically appear in the cell. Press enter and the data will be inserted.


AutoFill allows you to enter a series of data. Type in the first (and sometimes second) data of the series and click the corner (the cursor becomes a black cross **+**). Drag it across the columns or down the rows where you wish to place the series. For example, the days of the week, months of the year, numbering a series of names, etc.


Editing Data – Entries may be **edited** by clicking the cell and entering the correct information. You do not need to highlight or delete. Typing replaces whatever is in the cell. If you do not want to replace the data, but simply need to correct some part of it, move the cursor into the Formula bar. When your cursor turns into an I-Beam, click and edit within the formula bar.


Excel also contains a **spell checker**, which can be found on the **Standard toolbar**.




Undoing or Redoing an action can be accomplished by clicking the undo or redo tool

button on the Standard Toolbar. You can see a list of actions and select the one you wish to undo or redo. This tool is not available once the file is closed. 


Copying Data moves it to a temporary storage area called the clipboard until more data is copied or cut. Click the cell and use the copy button on the Standard toolbar to make a copy of the data. 

Select the cell in the area you would like to place the copy and click the paste button on the Standard toolbar.  The **Edit** menu or keyboard shortcuts (*Copy-Ctrl C, Paste Ctrl V*) can also be used.

Cutting Data removes it to a temporary storage area called the clipboard until more data is copied or cut. 

Deleting Data is accomplished by selecting the cell(s) that contain the undesired data and pressing delete on the keyboard.

Merge and Center – Cells in a worksheet can be merged to create one cell.

1. *Click-and-drag* to highlight a range of cells to be merged.
2. Click the **Merge and Center** button. 
3. If data is only in one cell, it will be centered in the new larger cell. If data is in more than one cell, a pop-up box will warn that only data in the upper-left cell will be kept.

Formatting Data

Data in a spreadsheet can be formatted much the same as in MS Word. Cells containing data should be selected before formatting. Use the **Formatting toolbar** to change font or size, text style, alignment, color, etc.




Freezing Column and Row Headings


It is often helpful to freeze headings so they can be viewed as they are related to the data.

1. Click a cell below the desired row or beside the desired column.
2. On the menu line click **Window...Freeze Panes**. Click **Unfreeze Panes** to unlock the headings.

Adding Borders and Gridlines

1. Highlight the area that contains the data.
2. Click the arrow on the **Borders** button on the formatting toolbar. 
3. Click to choose a format on the pop-up menu.
4. For more choices, *right-click* on the selected cells and click **Format Cells** from the pop-up menu. Then click the **Border** tab.
5. To fill the area with a color, click the **Fill Color** button on the formatting toolbar.


Sorting Data

Sort a column in ascending or descending order by selecting the column or cells, then click the appropriate button on the Standard toolbar.  For more advanced sorting, see p. 9.

Print Preview

To see what a page will look like when printed, click the **Print Preview** button. 


Creating a New Workbook

1. On the menu click **File**.
2. Select **New**. To create a blank workbook click **General tab**. To use a workbook from the templates choose **Spreadsheet Solutions tab**. You can also create an instant new workbook by clicking the **New** button on the standard toolbar. 

Saving and Naming a Workbook

1. On the menu click **File**.
2. Select **Save As...**
3. Select the **drive** and/or folder in the **Save in** box.
4. In the **File Name** box type the name for your workbook. Excel creates a three-letter extension of **.xls** at the end of the file name.

Opening an Existing Workbook

1. On the menu click **File**.
2. Select **Open** and locate the drive/folder where the file was saved. A file can also be opened using the open button on the standard toolbar. 

Moving Among Open Workbooks

To switch back and forth between open workbooks, click the corresponding Excel button on the **Task bar** at the bottom of your screen.



Adding and Deleting Worksheets

To insert a worksheet within a workbook click **Insert...** and select **Worksheet**. To delete a worksheet, click **Edit...Delete Sheet**. Then click **OK**.

Adding and Deleting Columns and Rows

To insert a column or row, select the column or row just after where a new column or row is needed. On the menu bar, click **Insert...Column** or **Row**. The new column or row will be inserted to the left or just above the selected column or row. To insert numerous columns or rows, *click-and-drag* to select the number of columns or rows to be added. Then click **Insert...Column** or **Row**.

Columns and rows can be deleted by selecting the column or row, then *right-clicking* the mouse and selecting delete (or click **Delete** under the **Edit** menu).

Moving and Copying a Worksheet

The worksheet to be moved and/or copied should be active. On the menu bar click **Edit...Move or Copy sheet**. Make selections in the Move or Copy box and click **OK**. To move a worksheet within a workbook **click** its name tab and **drag** it to the new position.

Renaming a Worksheet

To change the worksheet's name, *double-click the tab* that shows **Sheet 1** (or whatever number the sheet contains) and type its new name.

III. Calculations

Formulas perform calculations on the data entered. You can perform addition (+), subtraction (-), multiplication (*), and division (/). Every formula must start with an equal sign. When writing equations, use the *cell address*. To find the average of 3 numbers in cells A1, B1, C1, you could type the following formula on the formula bar:

$=(A1+B1+C1)/3$

Entering Formulas

Method 1

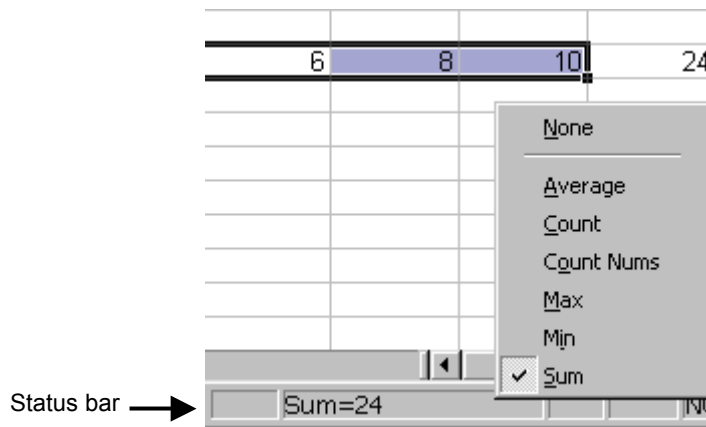
1. Select the cell in which you want the formula's calculation to appear.
2. Type the equal sign =
3. Type the formula. For example: =A2+B4
4. The formula will appear in the Formula bar.
5. Press **Enter** and Excel will calculate the result.


Method 2

1. Click the cell where to answer is to appear.
2. Type an = sign.
3. Click the first amount cell.
4. Press the **operation key** on the numeric keyboard. (+, -, *, /)
5. Click the next data cell. If any additional cells are included you *must* press the operation key between each cell click.
6. Press **Enter** and Excel will calculate the result.

Sums

The sum of a range of cells can be viewed by selecting the cells and looking at the **status bar**. *Right-click* the status bar to **change the option** to show the average, minimum number or maximum number.



AutoSum – To add a column or row of cells, highlight the cells (plus at least one additional cell) and click the **AutoSum** tool on the standard toolbar. The range will be shown in the cell. Press enter to see the sum. 

To **view all formulas** in a worksheet, under **Tools** on the menu bar click **Options**, then the **View** tab. In the **Options** pop-up window select **Formulas** and click **OK**. All formulas on the worksheet will be displayed.

Order of Calculations:

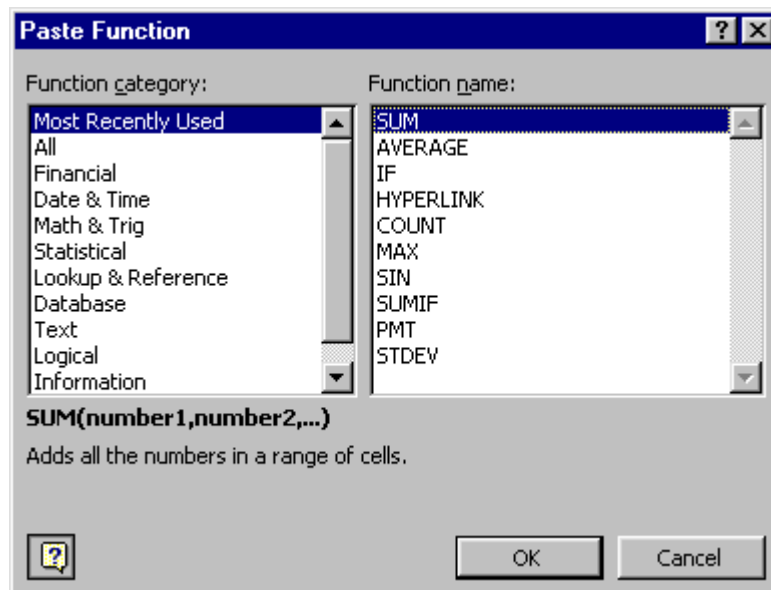
1. Exponents
2. Multiplication (*) and Division (/)
3. Addition (+) and Subtraction (-)
4. Parentheses can be used to change the order of calculations. Excel will calculate the data inside the parentheses first.

Copying Formulas allows you to adjust the formula to the data in the cell. To copy the formula:

1. Click the cell that contains the formula you wish to copy.
2. Click **Edit...copy**. Then click the cell you want to copy the formula to and click paste. If you only want to copy the formula and not the data select paste special.
3. To copy a formula to a neighboring range of cells use the **fill handle** (+).


Entering Functions

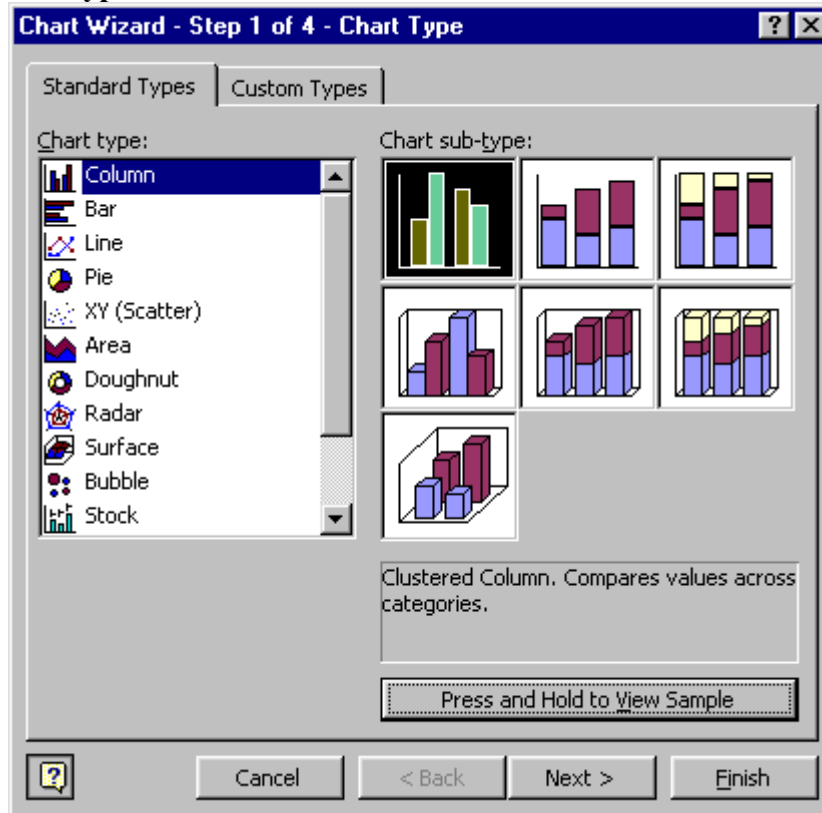
1. Click to select the cell where the answer to the function will go.
2. From the **Insert** menu, select **Function**
3. In the **Paste Function** pop-up window, select the **Function category** on the left and the **Function name** on the right.



4. Click **OK**, and then **OK** again in the next dialog box that appears. It is just a summary of what the function asks Excel to do. The function will be placed in the cell and the answer will be displayed.
5. Excel has many functions that can be accessed from the **Paste Function** window.

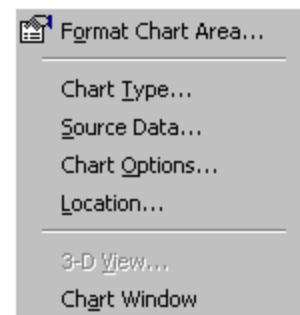
IV. Creating Charts

1. Highlight area to be displayed in chart.
2. Select the **Chart Wizard** in the Standard Toolbar. 
3. Select the **type of Chart** desired.



4. Click and hold the mouse pointer down on the **Press and Hold...** button to see how the chart will appear. If you don't like the look, select another chart type.
5. Click **Next** and choose options to make changes in the chart under the **Data Range** and **Series** tabs.
6. Click **Next** and choose more options to make changes in the chart.
7. Click and type the chart **title**, the type of information that will be displayed on the **bottom** of the chart in the **X axis**, and the type of information that will be displayed on the **side** of the chart in the **Y or Z axis**.
8. Click the other tabs for more options that can change the way the chart is displayed.
9. Click **Next** and select whether the chart is to be displayed as **New sheet** or **Object in existing sheet**
10. Click **Finish**.

Once the chart is created, changes can be made by *double-clicking* in different areas, or by *right-clicking* and then clicking on one of the choices from the pop-up menu.



V. Printing

Click **File...Page Setup** to select the following:

Page – Orientation (select Portrait or Landscape), **Scaling** (Reduces or Enlarges the worksheet), **Paper Size** (8 1/2 X 11 inches is the default setting), **Print Quality** (the higher the number, the better the print), **First Page Number** (the default is the set the starting page as number 1)

Margins – Top, Bottom, Left, Right (adjust margin settings), **Header, Footer** (to set up the header/footer, click View Headers and Footers); **Custom Headers and Footers** can also be set up to show the time, date, etc.

Sheet – Print Area (enter the range of cells you want to print to print only a portion of the worksheet, **Print Titles** (prints a row or column of entries that you want repeated as titles on every page, **Print select gridlines** or have color spreadsheets printed in black-and-white.

Page Order indicates how data should be printed.

A **Range** is a defined area inside a worksheet. You can define a range by highlighting the desired cells. To print a specific area of a worksheet you must define the range.

1. Highlight the area.
2. Select **File...Print Area**.
3. Select **Set Print Area**.
4. Then select **Print** from the Standard Toolbar.

Using Print Preview

To see what a page will look like when printed, click the **Print Preview** button.



VI. Help

1. Click the **?** on the **Standard toolbar** to activate **Microsoft Excel Help**.
2. Under the **Answer Wizard** tab, type in a question and select **Search**. Then *double-click* the answer that best describes what you're trying to do, or select **See More**. Click **Options** to print.
3. Under the **Contents** tab, look for a topic in alphabetical order.
4. Under the **Index** tab, search through by typing the first few letters of what you're looking for or use **Find** (you'll have to build the Find Index the first time you use it).
5. Use **Online help** if you are connected to the Internet by clicking **Help** on the Menu bar, and selecting **Office on the Web**.