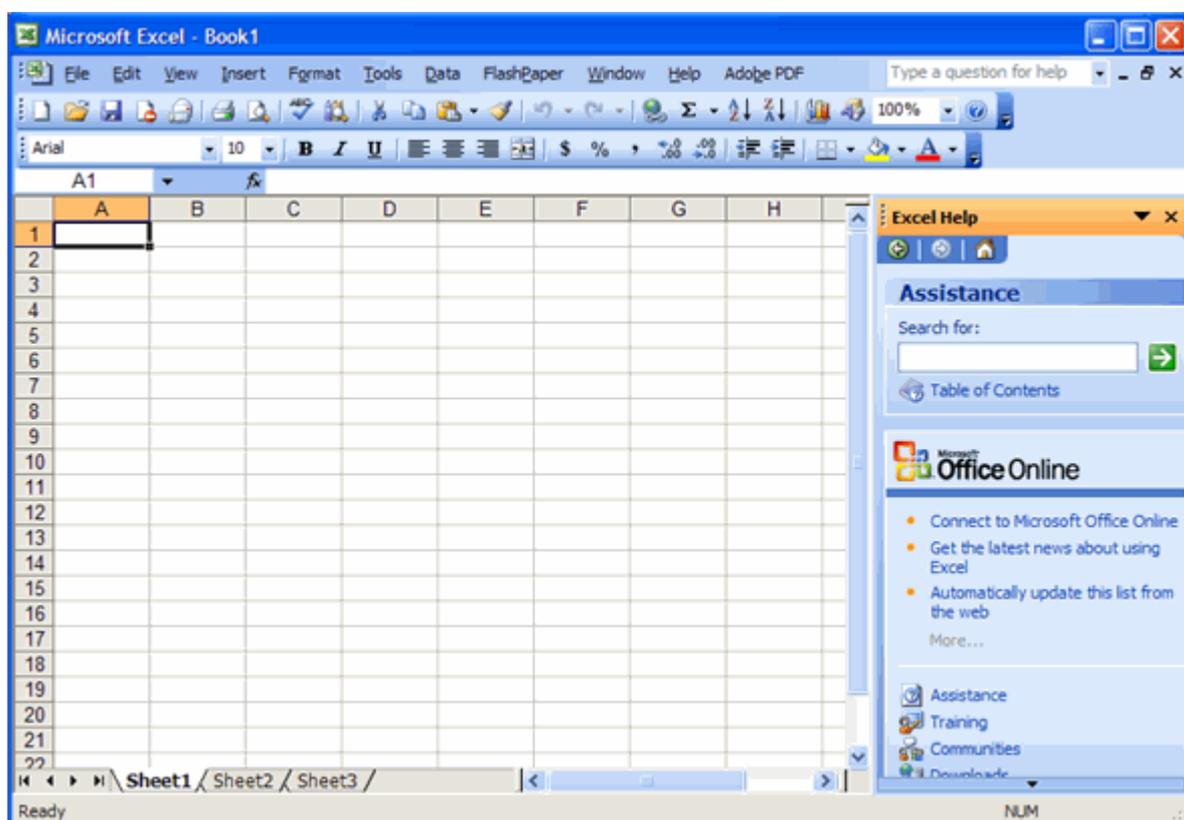


# Session 1: Introduction to Excel 2003

## 1 - The Excel Basics

There are many uses for Excel. Businesses use it for creating financial reports and budgeting. School administrators can use it for preparing school budgets. Teachers use it to analyze data about student performance and adjust their teaching. Scientists use it to analyze data. Economists use it for statistical analysis. Families use it to manage their investment portfolios. Microsoft Excel is by far the most widely used, most powerful spreadsheet program available.

These Excel 2003 tutorials will introduce you to the Excel "basics." They will cover the information that would be covered in an introductory course on Microsoft Excel 2003.



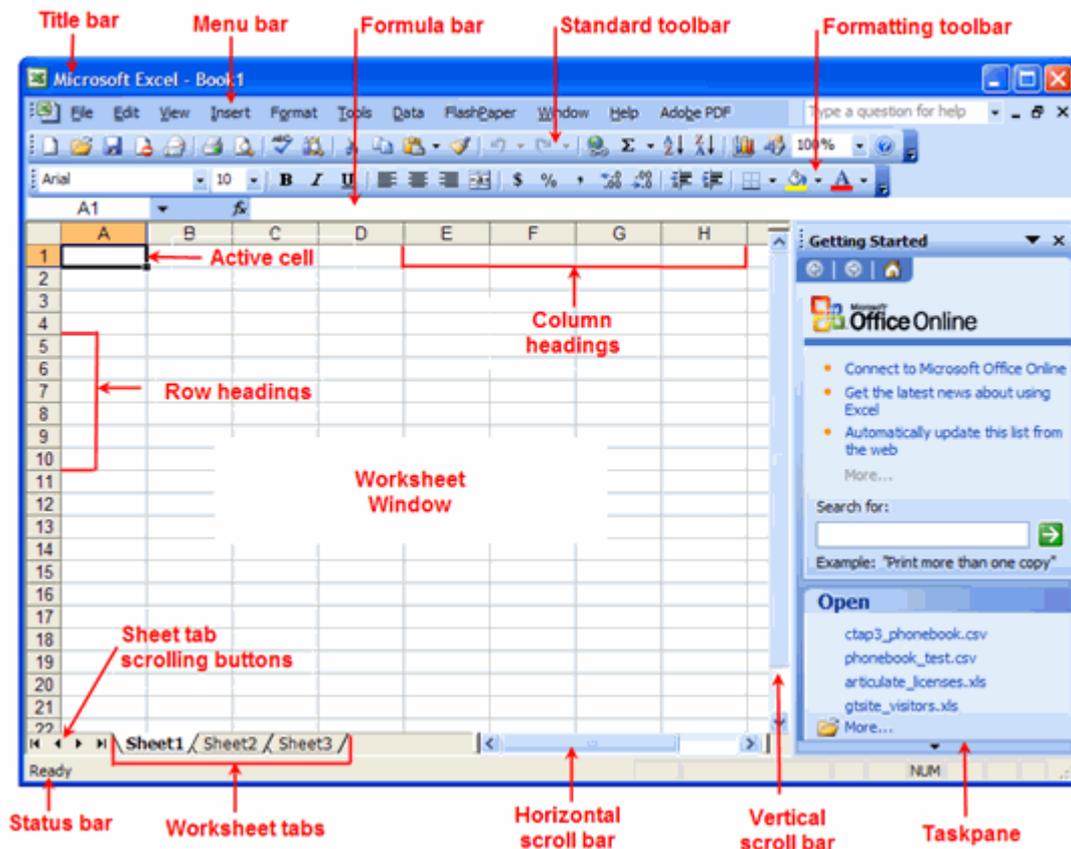
The Excel 2003 Program Area

## 2- Excel Program Screen

When you launch Excel, the program opens to a blank document that looks like the one below. From this point, you can add data, change how it looks, have Excel perform mathematical calculations or summarize the data or find information in Excel's help files.

The image below shows the most important parts of the Excel workbook window. Note that it's possible that depending on the way your computer is configured, not every toolbar that you see below may look the same on your machine. You can select the toolbars to view by selecting View from the Menu Bar and then choosing "Toolbars."

The most basic part of an Excel document is the box that holds a piece of data, called a cell. A cell is the box represented by the intersection of a column and a row. Rows are identified by the numbers down the left side and columns are identified by letters across the top. Each cell is indicated by a cell reference. For example, in the image below the Active Cell at the intersection of Column A and Row 1 is given the cell reference of A1.



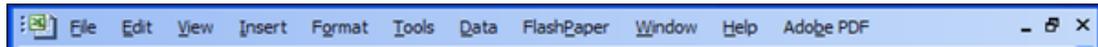
### 3- The Excel Toolbars

Title Bar - The title bar displays the name of the program you are currently using and the name of the Excel workbook that is open. It appears at the top of all Windows programs. By default, Excel opens with Book 1.



Title Bar

Menu Bar - The menu bar is directly below the Title bar and displays a list of the menus that you can use to give commands to Excel. Clicking on a menu name displays a drop down menu of commands. You can move across the menu bar and down the drop-down menus with your mouse or by highlighting one of the menu items and using the arrow keys on your keyboard.



Menu Bar

The menus found on the Menu Bar include the following:

- **File** - File-related commands to open, save, close, print, and create new files.
- **Edit** - Commands to copy, cut, past, find, and replace text.
- **View** - Commands to change how the workbook is displayed on the screen.
- **Insert** - Lists items that you can insert into a workbook, such as graphics and charts.
- **Format** - Commands to format fonts, cell alignment, and borders.
- **Tools** - Lists tools such as the spell checker and macros.
- **Data** - Commands to analyze and work with data information.
- **Window** - Commands to display and arrange multiple windows.
- **Help** - Get help on using the Excel program
- **Adobe PDF** - Options file menu if you have Adobe Acrobat installed.

Standard Toolbar - The Standard toolbar includes buttons that are shortcuts for the most commonly used commands. It contains buttons for the tools you use most frequently, such as saving, opening, and printing workbooks.



Standard Toolbar

The tools found on the Standard Toolbar include the following:

- **New** - Creates a new, blank spreadsheet
- **Open** - Open a previously saved spreadsheet
- **Save** - Save your current spreadsheet
- **Permission** - To restrict access to your spreadsheet
- **Print** - Prints the current document
- **Print Preview** - Preview the current spreadsheet to see how it will print
- **Spelling** - Performs a spell check of cells in the current document
- **Research** - Enables information rights management which can help protect sensitive documents from being copied or forwarded.
- **Copy** - Copies the current selection to the clipboard, which can then be pasted elsewhere in the document
- **Paste** - Takes the current clipboard contents and insert them
- **Undo** - Undoes the last action in the document
- **Redo** - Redoes the last undone action
- **Insert Hyperlink** - Inserts a hyperlink to an Internet Web location
- **Auto Sum** - A drop-down menu of available mathematical operations to perform
- **Sort Ascending** - Sorts the current selection in ascending order
- **Chart Wizard** - Opens the "Chart Wizard," which will walk you through the creation of charts and diagrams using the selected data.
- **Other Options** - There are a variety of other options you can call or add to the toolbar, such as Cut, Email, Sort Descending, etc. By clicking on the triangle at the far right side of the toolbar, you can access these options.

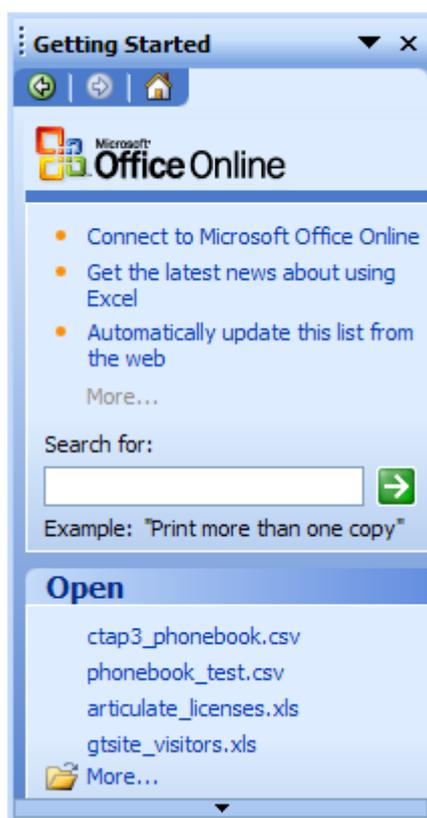
Formatting Toolbar - The Formatting toolbar contains buttons for the most commonly used formatting commands, such as making text bold or italicized.



Formatting Toolbar

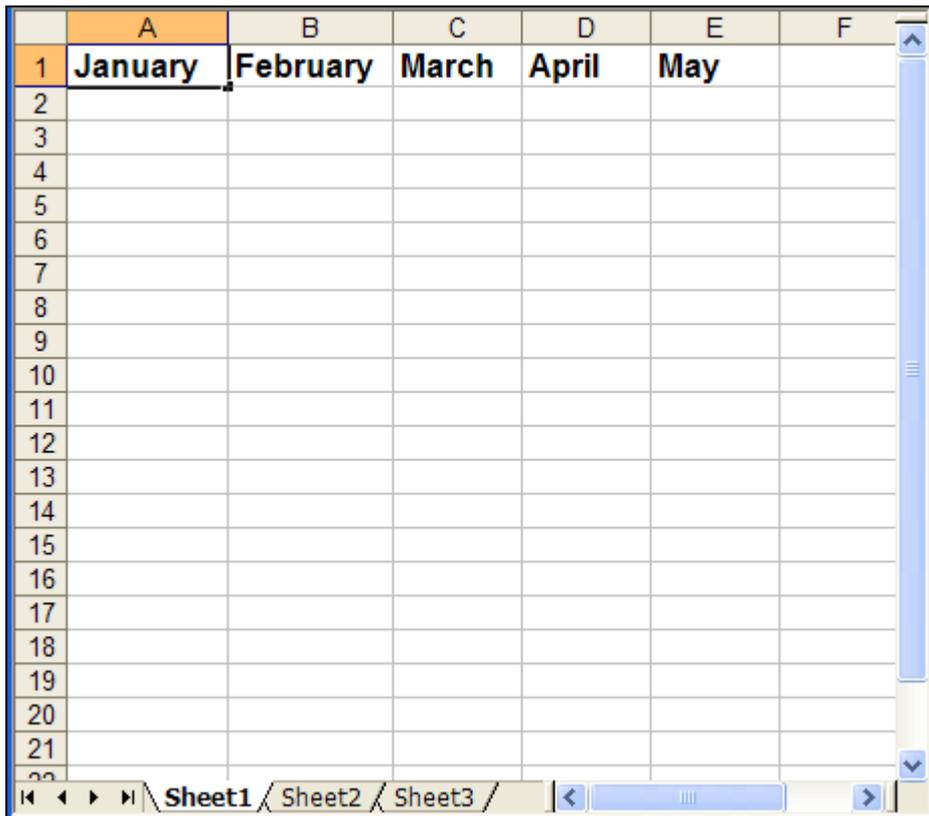
The Formatting Toolbar includes commonly used buttons for formatting the information in cells. These include the following:

- **Font** - Changes the font of the selected cells
- **Size** - Changes the font size of the selection
- **Bold** - Puts the selection in **bold** face
- **Italics** - Puts the selection in Italics
- **Underline** - Places an underline beneath the selection
- **Align Left** - Aligns the current selection to the left
- **Align Right** - Aligns the current selection to the right
- **Merge & Center** - Combines two selected cells into one new cell that spans the width of both and center the contents of this new cell
- **Currency Style** - Changes the style in which currency is displayed
- **Percent Style** - Changes the style in which percents are displayed
- **Decrease Indent** - Decrease the indent of a cell by approximately one character
- **Border** - Adds or alters the style of borders around selected cells
- **Fill Color** - Select a color to fill the background of a cell
- **Font Color** - Select a color to apply to a selection of text



Task Pane - The Task pane lists commands that are relevant to whatever you're doing in Excel. You can easily hide the task pane if you want to have more room to work on a workbook. Click the close button in the upper right corner of the Task pane. To open it again, choose View, Task pane.

Worksheet Window - You can have multiple worksheets in an Excel file. The worksheet window is where you enter data into the cells on the worksheet. You can have more than one worksheet open at a time. Each worksheet contains columns and rows.

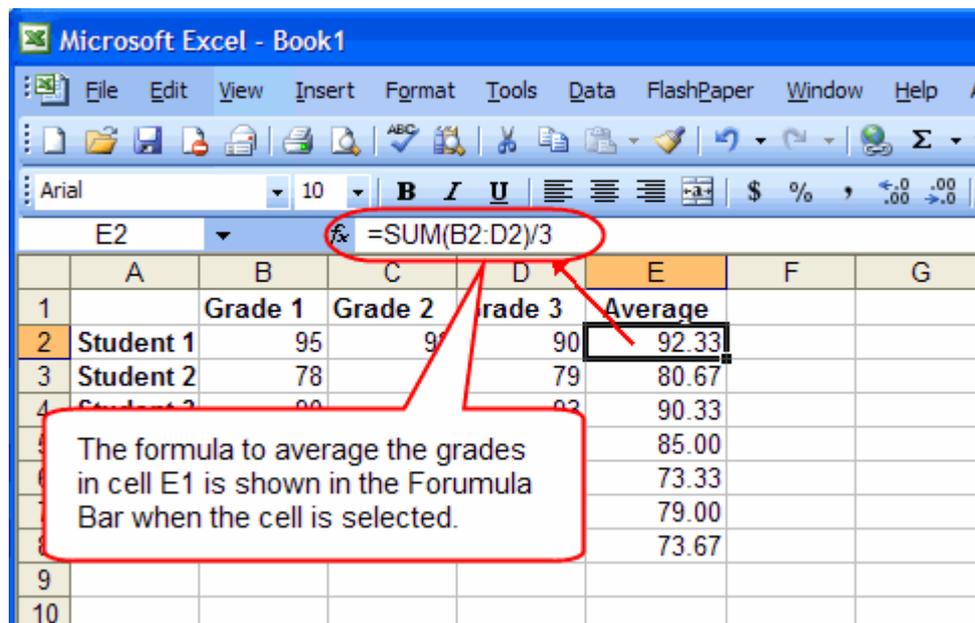


Formula Bar - The Formula Bar allows you to view, enter, and edit data in the selected cell. If the cell contains a formula, it will be displayed here. If there is no formula then the content of the cell is displayed. Cell content can be edited directly in the cells or in the Formula bar.

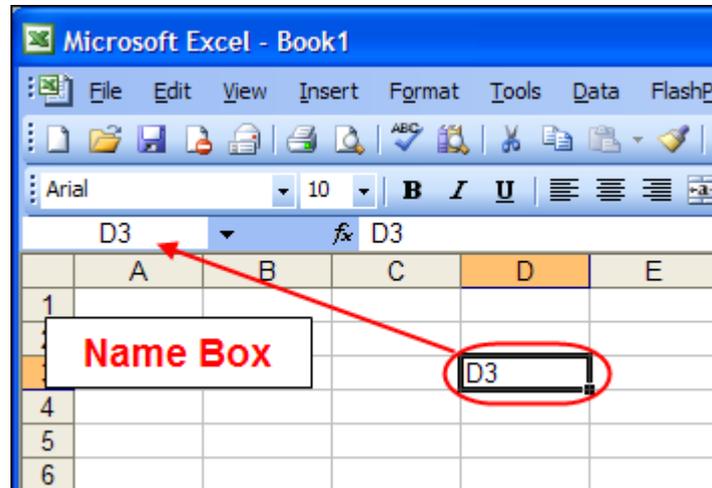


The Formula Bar

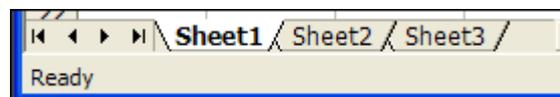
The mathematical formula will appear in the Formula Bar when a cell that includes a formula is selected in the worksheet. In the example below, the formula to average grades is in cell E2. When cell E2 is selected, the formula appears in the Formula Bar.



Name Box - The Name Box displays the active cell address. For example, the selected cell in the image below is at the intersection of column D and row 3. "D3" will appear in the name box, indicating that the active cell is D3. The content of the selected cell appears in the Formula bar to the right of the Name box.



Worksheet Tabs - You can keep multiple worksheets together in a group called a workbook. For example you could have a separate worksheet for each month of the year in a workbook for the year 2007. You can give worksheets your own meaningful names by placing your cursor over the sheet name and typing. By default, Excel opens with three worksheets.

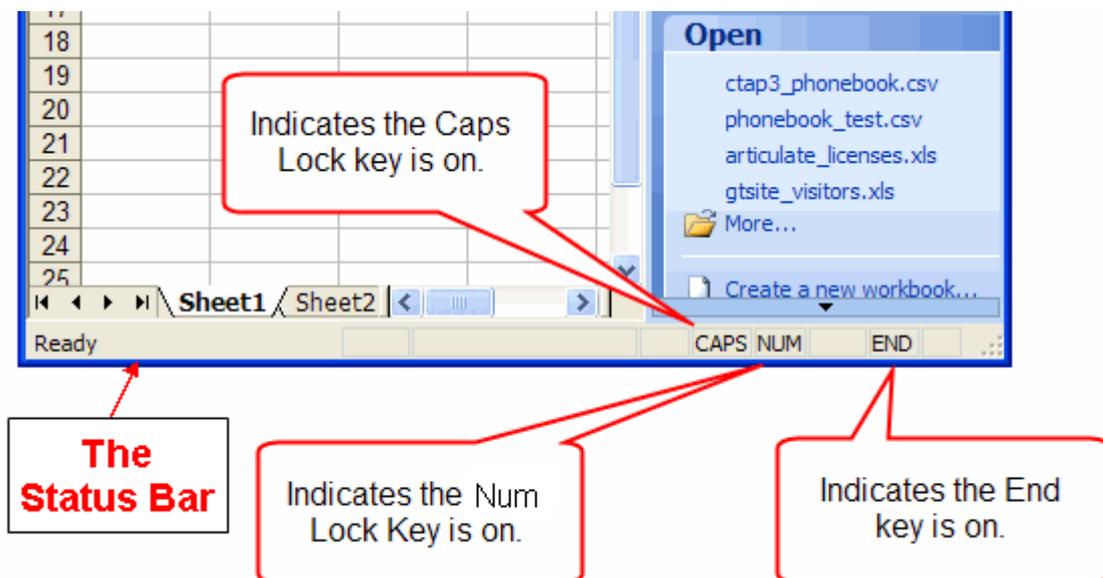


Scroll Bars - Horizontal and Vertical scroll bars are available to help you move around your spreadsheet. The scroll box shows where you are in the workbook. For example, if the scroll box is near the bottom of the scroll bar, you're at the beginning of a workbook.

Status Bar - If the Status bar is on, it will appear at the bottom of the screen. It displays messages and feedback. Do the following exercise to learn how to use the Status bar.

1. Point to View in the Menu bar.
2. Click the mouse button. A drop-down menu will open.
3. On the drop-down menu, if the Status Bar has a check mark next to it, it is turned on. Press the Escape key to close the menu.
4. If the Status Bar does not have a check mark next to it, press the down arrow until it is highlighted, then press enter. The Status Bar should now appear at the bottom of the screen.

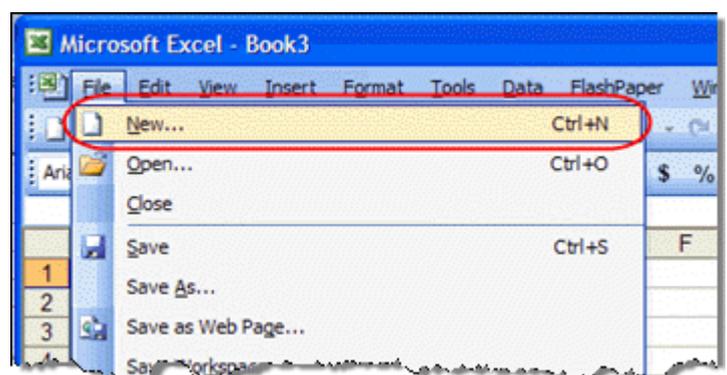
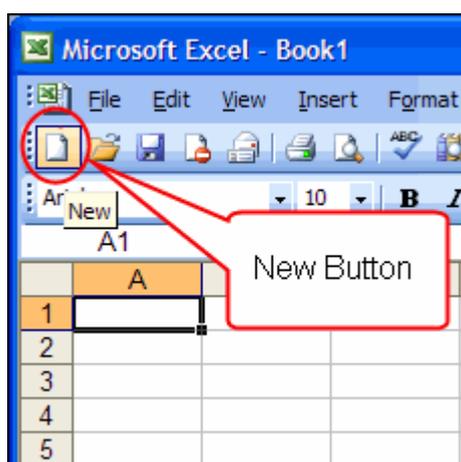
You should see the work "Ready" on the Status Bar at the left side of the screen. This tells you that Excel is in Ready mode and waiting for your next command. There are other indicators that appear on the Status Bar in the lower right of the screen.



**Num Lock Key** - The Num Lock key is a toggle key. When you turn it on and off, the Status Bar let you know the Num Lock key status.

**Caps Lock Key** - The Caps Lock key is also a toggle key. The Status Bar will also indicate whether or not it is on or off. When it is on, you will see "CAPS" in the Status Bar.

#### 4- Create a New Workbook



Excel provides several ways to create a new workbook. Commands can be given to Excel using the menus or the toolbars.



You can position the cursor over the New Button on the Standard Tool bar. A Screen Tip appears over the button to identify what the button is.

Click the New Button and a new, blank workbook appears.

Create a New Workbook from the File Menu

You can also click on the File menu and choose the New command. This will also open a new Excel workbook. You can navigate the menus by using the arrow key

When you click on the word File on the Menu bar, a menu drops down. The File menu contains a list of file-related commands. Click on New or use the key commands Ctrl + N to create a new, blank workbook.

You can also use the File menu to close a workbook. Choose File, Close.

## 5- Moving Around the Excel Worksheet

Before you start entering data into a worksheet, you need to learn how to move around in a worksheet. Before you can enter information into a cell, you must make the cell active by selecting it. You can make a cell active by using the mouse and clicking in a cell or you can use the keyboard to move the cell pointer using the keyboard's arrow keys.

Excel provide several ways to move about the cells in the Excel Workspace. Open Excel and practice moving around the worksheet by following the steps below:

Using the Arrow Keys

You can use the arrow keys on the keyboard to move around the Excel worksheet one cell at a time. Press the down arrow to move down one cell at a time. Press the up arrow several times to move up one cell at a time. Press the right and left arrow keys to move left and right one cell at a time.

You can use the End Key in conjunction with the Arrow keys to move the cursor to the far end of the spreadsheet in the direction of the arrow.

Using the Tab Key

You can use the Tab key to move across the page to the right one cell at a time. Hold the Shift key + Tab to move to the left one cell at a time.

Using the Page Up and Page Down Keys

You can use the Page Up and Page Down keys to move the cursor up and down the worksheet one page at a time.

Using the Home Key

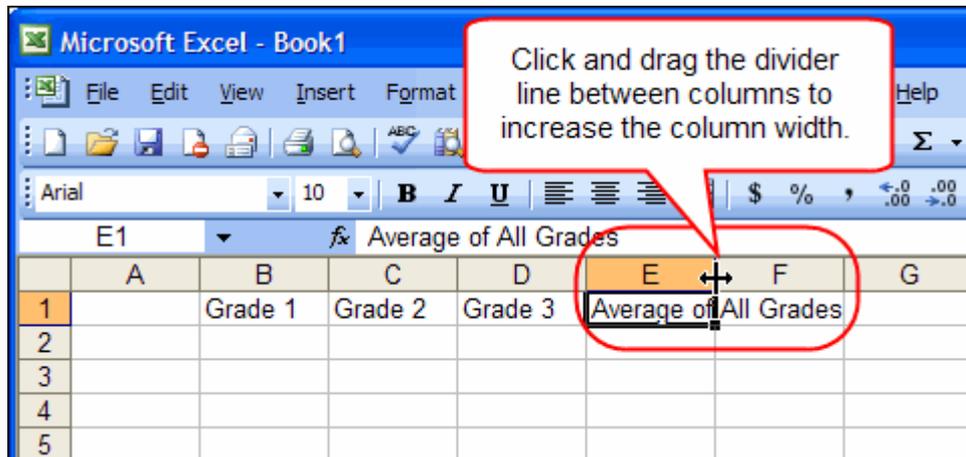
The Home key used in conjunction with the End key moves the cursor to cell A1 or to the beginning of any data that has been entered into the worksheet.

Keyboard Shortcuts for Moving Around a Worksheet

Press	To Move
Right arrow or Tab	One cell to the right
Left arrow or Shift+Tab	One cell to the left
Up arrow key	Up one row
Down arrow key	Down one row
Home	Jump to the cell in column A in the current row

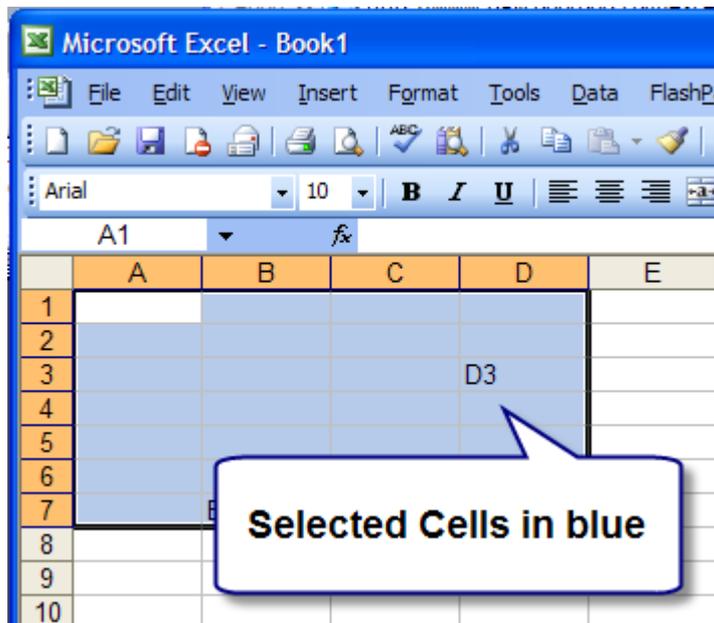
## 6- Adjusting Column Widths and Row Heights

If you enter text or numbers into a cell and you find that it spans beyond the width of the cell, you can make the column wider by clicking and dragging the dividing line between the two columns. Place your cursor over the dividing line, click, and then drag it to the desired width and then release your mouse.



## 7- Editing Cells in Excel

Before you can perform a function on cells, you must select them. You can do that by clicking on a column label to select all cells in that column, a row label to select all cells in a particular row, or you can click and drag your mouse over a group of cell. Selected cells turned blue and have a black border line around the them.



Excel 2003 Tutorial: Selecting Cells in Excel

There are several ways to select cells in Excel. To select a column, simply click on the letter of the column you wish to select. To select a row, click on the row number on the left side of the workspace. All of the cells in that row will be selected. You can also click and drag the mouse over the cells you wish to select.

Another way to select cells is to place the cursor in the upper left cell that you want to highlight. Press the F8 key. This anchors the cursor. Notice that "EXT" appears in the Status bar in the lower right of the screen. This indicates that you are in the Extend mode. Click in the cell on the lower right corner of the group of cells that you want to select.

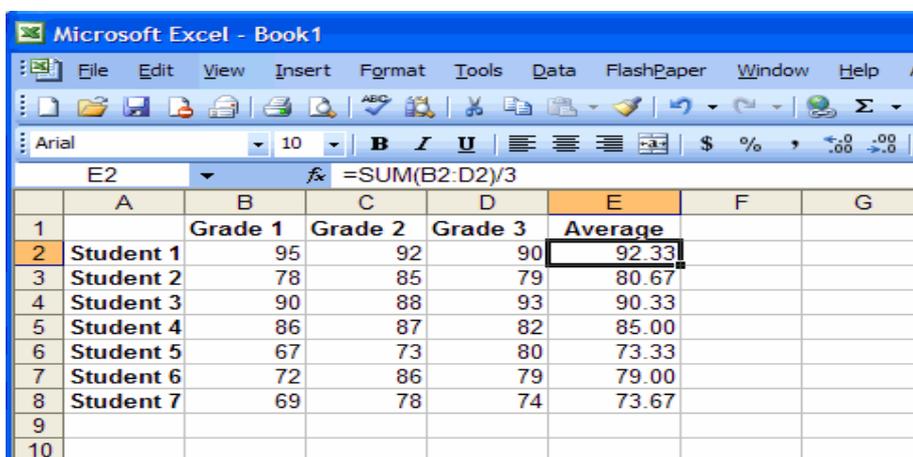
For example, click in cell A1. Then hit the F8 key to anchor the cursor. Click in cell F8 and all of the cells between A1 and F8 will be selected. To release the cells, hit the Escape key.

## 8- Entering Labels in an Excel 2003 Worksheet

Now that you've learned to navigate around an Excel 2003 spreadsheet, you're ready to start entering data. There are two basic types of information you can enter in a cell.

1. Labels: Labels are any type of text or information that is not used in any calculations.
2. Values: Any type of numerical data, such as numbers, percentages, fractions, divisors, dates, currencies, times, etc.

Labels are used for worksheet headings and make your worksheets organized and easy to read. They usually contain text, but can also contain numerical information not used for calculations, such as numbers or dates. See the sample headings below for Grades across the top row and Students down the first column.



The screenshot shows the Microsoft Excel 2003 interface. The title bar reads "Microsoft Excel - Book1". The menu bar includes File, Edit, View, Insert, Format, Tools, Data, FlashPaper, Window, and Help. The toolbar contains various icons for file operations and editing. The status bar at the bottom shows "E2" and the formula bar contains "=SUM(B2:D2)/3". The spreadsheet data is as follows:

	A	B	C	D	E	F	G
1		<b>Grade 1</b>	<b>Grade 2</b>	<b>Grade 3</b>	<b>Average</b>		
2	<b>Student 1</b>	95	92	90	92.33		
3	<b>Student 2</b>	78	85	79	80.67		
4	<b>Student 3</b>	90	88	93	90.33		
5	<b>Student 4</b>	86	87	82	85.00		
6	<b>Student 5</b>	67	73	80	73.33		
7	<b>Student 6</b>	72	86	79	79.00		
8	<b>Student 7</b>	69	78	74	73.67		
9							
10							

This is what a basic spreadsheet may look like. Notice that numbers automatically align to the right, while text automatically aligns to the left. A row has been allowed at the top for column headings and a column has been allowed on the left for row headings. These have been placed in bold.

The grade average in cell E2 was not entered. Instead a formula was entered to add the three grade columns and divide the total by three to find the average grade. When that

formula was copied into each of the rows in column E, Excel automatically calculated the average for each student.

## 9- Saving an Excel Workbook

After you've created a worksheet, you need to save it if you intend on using it again. Saving a worksheet stores it in a file on your computer's hard disk. Once you've saved a worksheet the first time, it's a good idea to save it often so you don't lose your work should something happen to the file or your computer. You don't want to lose all your work if the power goes out or something else unexpected happens.

Select File > Save As from the menu bar. The Save As dialog box will appear and you will be given the opportunity to give the file a name and choose the location on your hard drive where you want to save the file. Once you've given the file a name and saved it, in the future, when you make any changes to the file, you only need to click the save button to save the most recent changes to the file.

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