

Introduction to Microsoft Excel

What is a spreadsheet program?

- Microsoft Excel is an example of a spreadsheet program that will maintain records for you relating to finances, products, activities, events and services. It allows you to enter, organize, compare and print data including graphs.
- Spreadsheets are saved in documents called workbooks and each workbook is comprised of individual worksheets or sheets.
- Excel will also allow you to print detailed reports, charts and graphs.



What are the parts of an Excel document?

- A **cell** is the most basic part of an Excel document. A cell is created at the intersection of a row and a column. The cell that is currently open and ready for editing is called the **active cell**. You will find a darker border around the active cell.
- The **cell reference** identifies the exact location of the current active cell. In the Figure below, the active cell is A1. The column is always the first letter in a cell reference followed by the row number. Cell A1 is the cell located in column A and row 1. Each cell has a unique cell reference.
- The **formula bar** displays the contents of the active cell including any formulas. As you enter or edit data, the changes will appear in the formula bar.
- **Columns** (vertical) are labeled along their column heading A thru Z, AA thru AZ, up to column IV.
- **Rows** (horizontal) are labeled by their row headings from 1 thru 65,536.

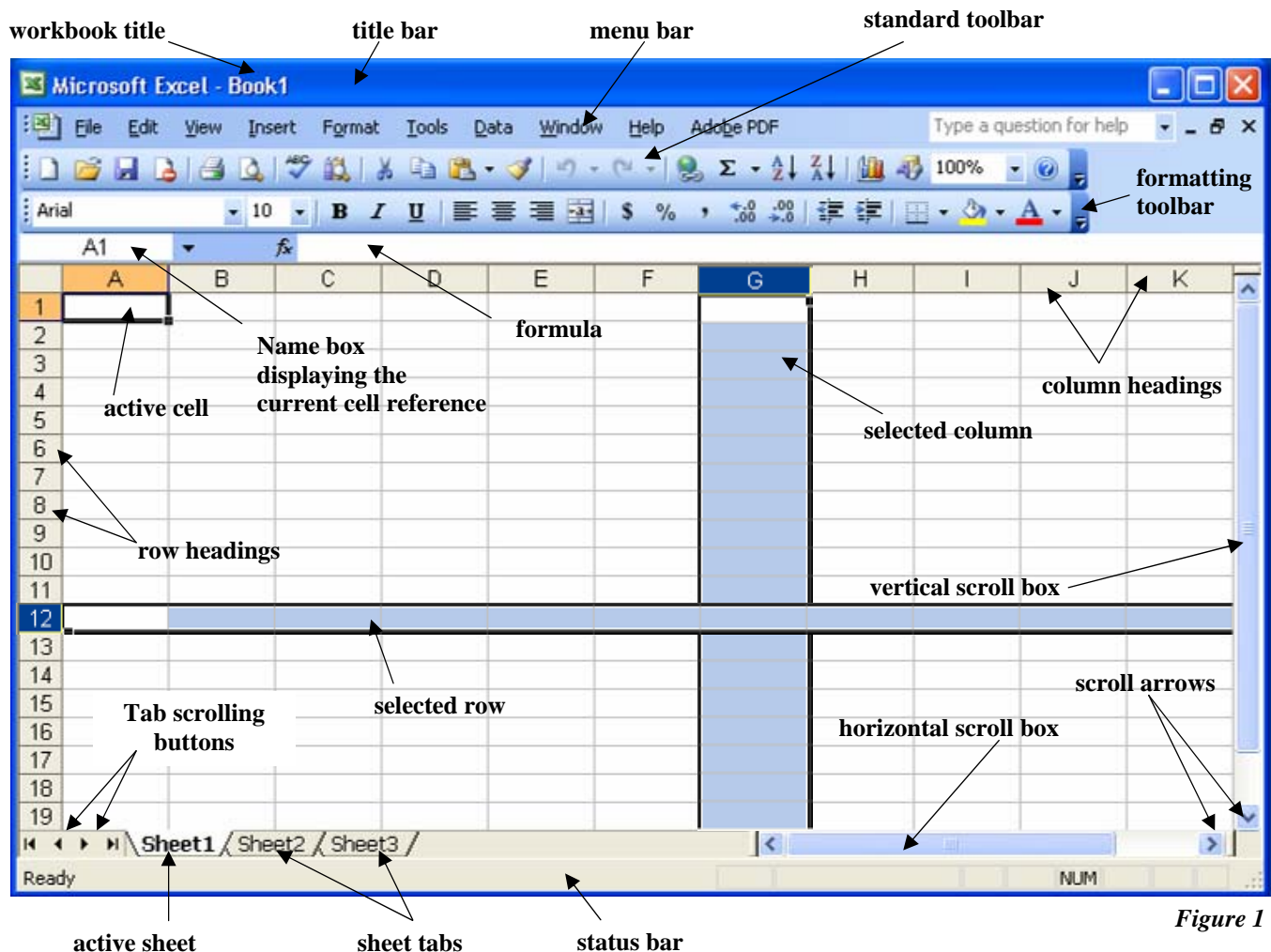


Figure 1

Introduction to Microsoft Excel

What are the parts of an Excel document ? (continued)

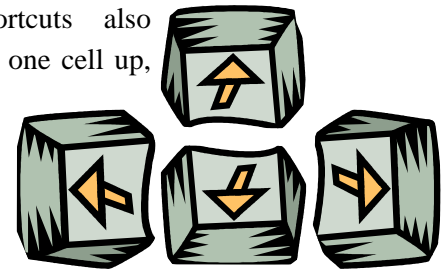
- The **name box** displays the active cell reference. In Figure 1, the name box displays A1.
- The **pointer** indicates the current location of your mouse pointer. While hovering over a worksheet, the pointer will become a cross, however, while moving over other areas such as the Standard toolbar, it will become an arrow.
- Each worksheet in the workbook is comprised of **sheet tabs** which displays the sheet's name. Click on the appropriate tab to access the sheet you need. The tab of the active or selected sheet will not only appear on top of the other tabs, but will be in bold letters.
- If you want to quickly scroll between worksheet in a workbook, use the **tab scrolling buttons**.
- The **toolbars** contain buttons, boxes, and menus that allow you to provide quick access to common commands and perform those tasks more quickly. The **menu bar** is the first toolbar in Excel. Below the menu bar is the **standard toolbar**, and the **formatting toolbar** is just below the standard toolbar.
- The **title bar** displays the program (Microsoft Excel) and the name of the workbook.
- The **document title** is the name of the current workbook. In Figure 1, the document is named Book 1 because it has not yet been saved.
- The **menu bar** displays Excel menu names. Each menu name contains a list of commands used to retrieve, store, print, format data in your document, and perform many other functions. The menu is displayed when you click on each menu name.
- The **standard toolbar** contains buttons to activate frequently used commands.
- The **formatting toolbar** contains buttons to activate common font and paragraph formatting commands.
- The **status bar** displays messages about the active worksheet.



How do I navigate in an Excel worksheet?

- There are three different ways to navigate within a Microsoft Excel worksheet. You may use the mouse, the keyboard or enter a cell reference in the Name box.
- To change the active cell, you can click once on a new cell by **using the primary (left) mouse button**. While the mouse is over the worksheet area you will notice that it takes the shape of a white cross, however, once you move to a tab, menu or toolbar it becomes a pointer once again.
- There are many **keyboard** shortcuts also available. The arrows will move you one cell up,

down, to the left or right. By pressing "Enter" you will move the active cell down one cell. By pressing "Tab" you will move the active cell to the right by one cell. "Page Up" will move the active cell up one full screen. "Page Down" will move the active cell down one full screen. If you press the "Home" key, you will move the active cell to column A. By selecting the "Ctrl" + the "Home" button at the same time, you will automatically move to cell A1. If you select the "F5" key, it will open the "Go To" dialog box which will allow you to enter the exact cell address that you want to make the active cell.



- The final way to navigate in an Excel worksheet is to enter a cell reference in the **Name box**.

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What are the parts of the Standard Toolbar?

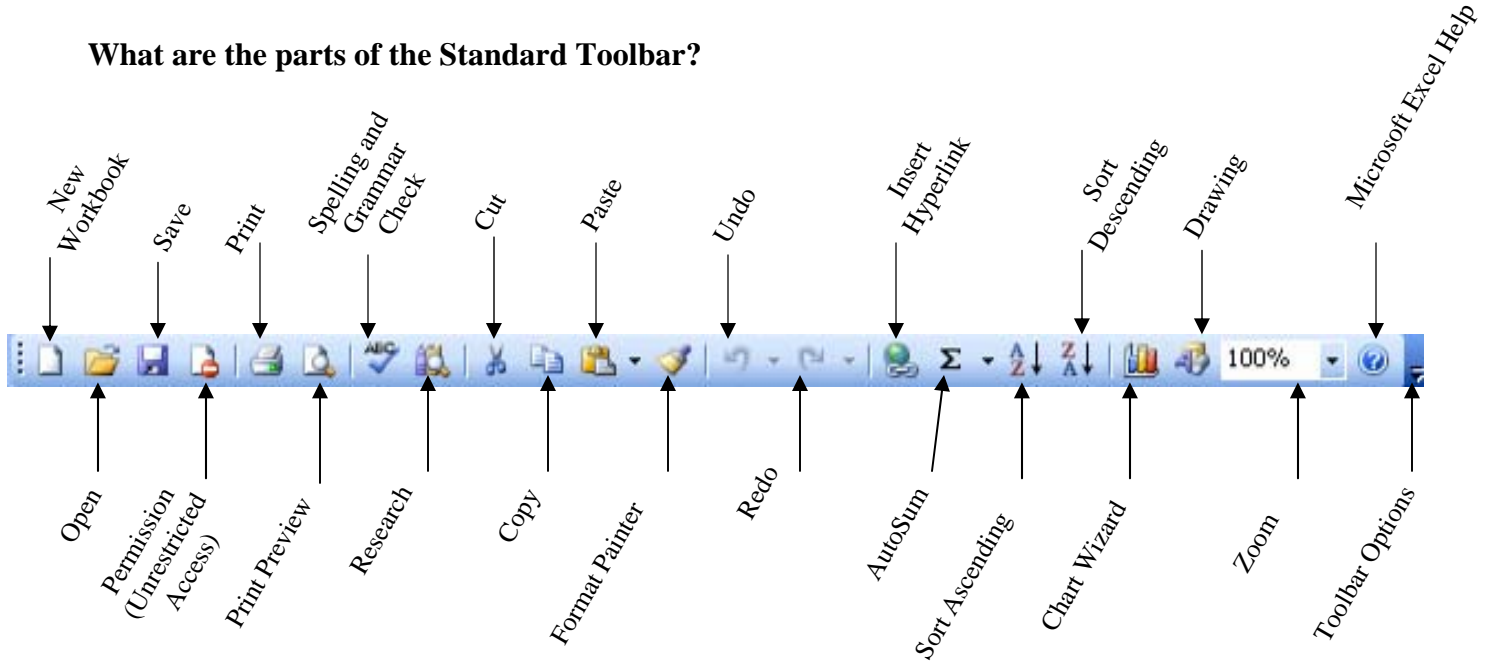


Figure 2

What are the parts of the Formatting Toolbar?

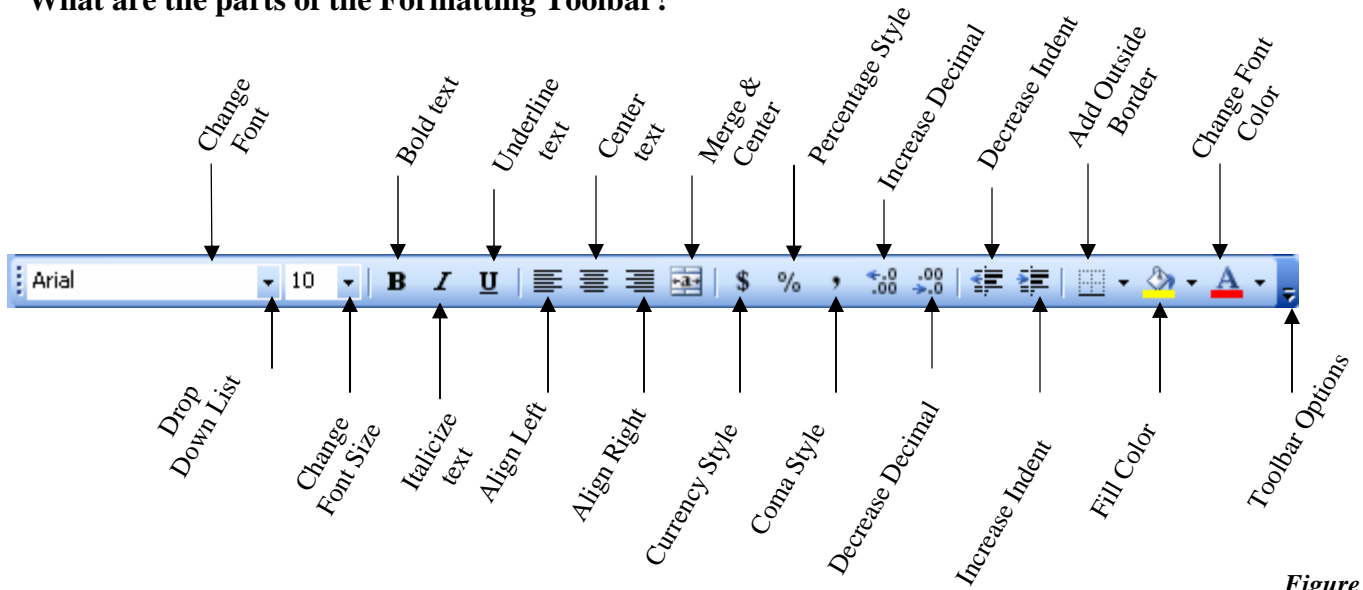


Figure 3

What does the Formula Bar, Active Cell and Name Box display?

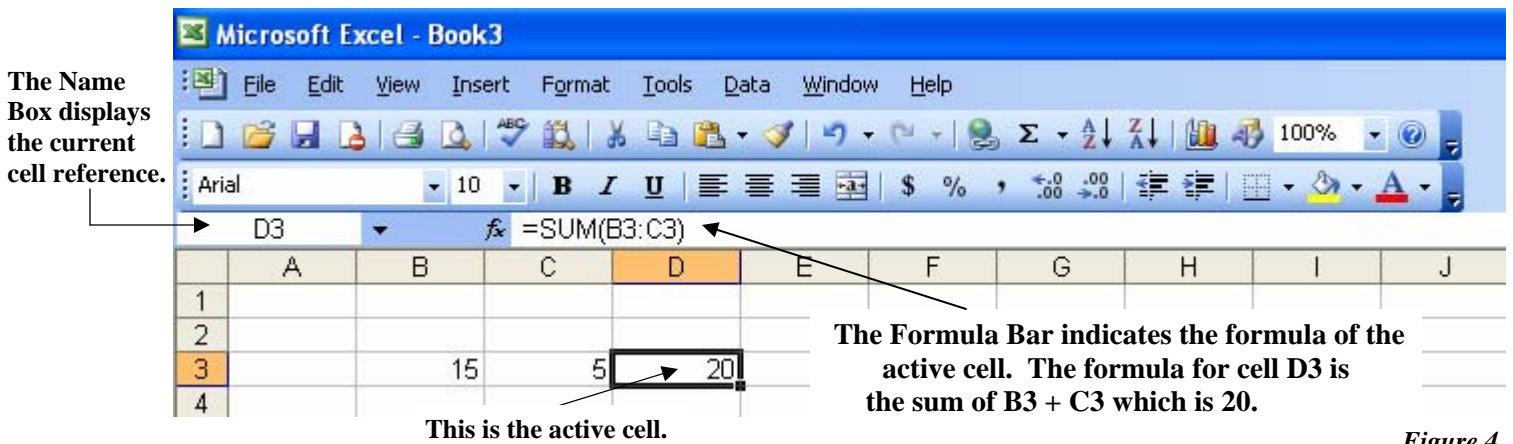
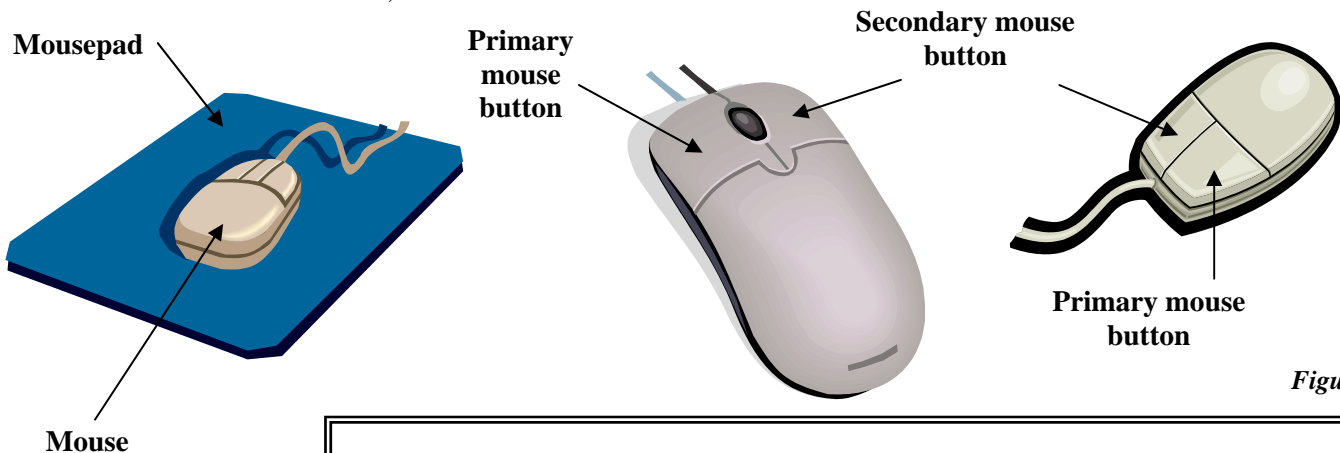


Figure 4

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How do I use the mouse?

- The **primary mouse button** is typically the left mouse button and the **secondary mouse button** is typically the right mouse button.
- **Point** means you move the mouse across a flat surface until the mouse pointer rests on the item of choice on the desktop.
- **Click** means you press and release the *primary* mouse button. You must point to an item before you click.
- **Right-click** means you press and release the *secondary* mouse button. You will point to an object on the screen prior to right-clicking. Whenever you right-click an object, a context-sensitive, or short-cut, menu will display. The use of shortcut menus speeds up your work and adds flexibility to your interface with the computer.
- **Double-click** means you quickly press and release *primary* mouse button twice *without moving the mouse*. You must point to an item before you double-click. If you have problems double-clicking, click once on the item (it should be highlighted) now pressing the **Enter** button. This will accomplish a double-click.
- **Drag** means you point to an item, hold down the *primary* mouse button, move the item to the desired location on the screen, and then release the mouse button.
- **Right-drag** means you point to an item, hold down the *secondary* mouse button, move the item to the desired location, and then release the mouse button.



Let's Practice Navigation In Microsoft Excel

- Open Microsoft Excel and click on cell **B4** by using your mouse.
- Notice that **B4** now appears in the Name Box as your active cell.
- On your keyboard, use your right arrow to move to cell **E4**.
- Now, use your down and left arrows to move to **D6**.
- By using your mouse, click on **C13**. It is now the active cell.
- By using your mouse, enter **F160** in the Name Box and press **Enter**.
- The active cell is now **F160**.
- Press the **Home** key on the keyboard. It will move you to Column A, but you will remain on row 160.
- Now press **Ctrl** and the **Home** key on the keyboard at the same time. It will move the active cell to A1.
- Click **Page Down** on your keyboard. Notice how your active cell has now moved down one page. Now **Page Up** and you will be back to A1.
- Don't forget to use your **scroll boxes** to view different parts of a worksheet.
- Also, you may choose to use the **zoom out** to view your entire worksheet.
- If you press the **F5** key, you will give you a pop-up "Go To" box. Enter a cell reference, press enter and you will be taken to that exact cell.
- From the active cell, you can use the **Enter** key to move down one cell and the **Tab** key to move one cell to the right.

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How Do I Work with Different Worksheets In The Same Workbook?

- A workbook is composed of several different worksheets. The default for a new blank workbook is three worksheets which will be labeled Sheet 1, Sheet 2 and Sheet 3. To select a different worksheet, locate and click on the appropriate worksheet tab. See the figure below.
- Also, notice the tab scrolling buttons at the bottom left corner of the worksheet.

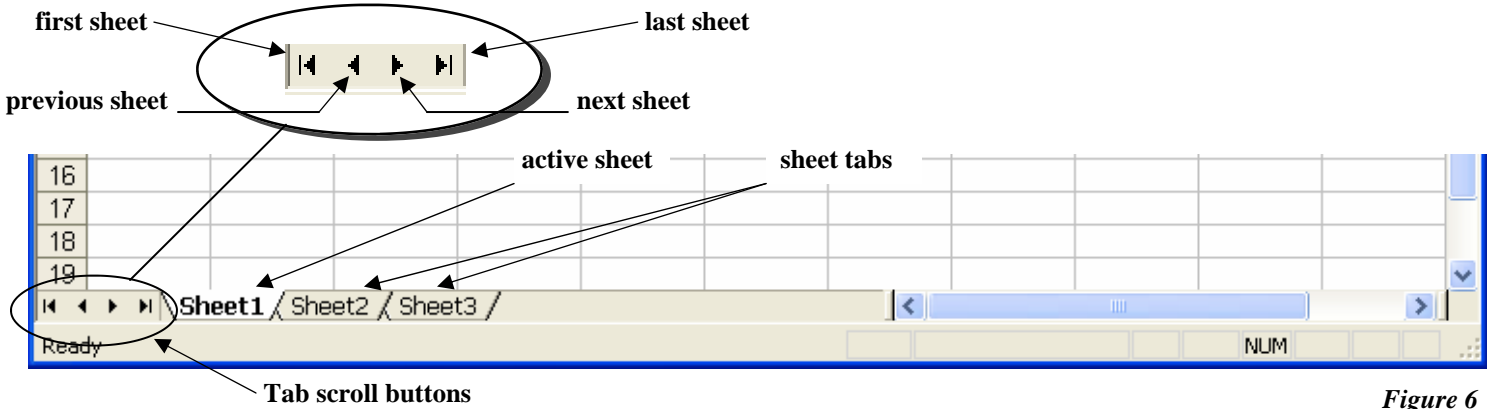


Figure 6

What are Ranges?

- A **range** is a series of two or more cells. If they are contiguous, they are called an **adjacent range**. If they are noncontiguous, they are called a **non-adjacent range**. Please see the figure below.
- The adjacent range below is comprised of D15 through E16 or D15:E16
- The non-adjacent range is A1 through D6 and D8 through E9. This is represented as A1:D6; D8:E9.

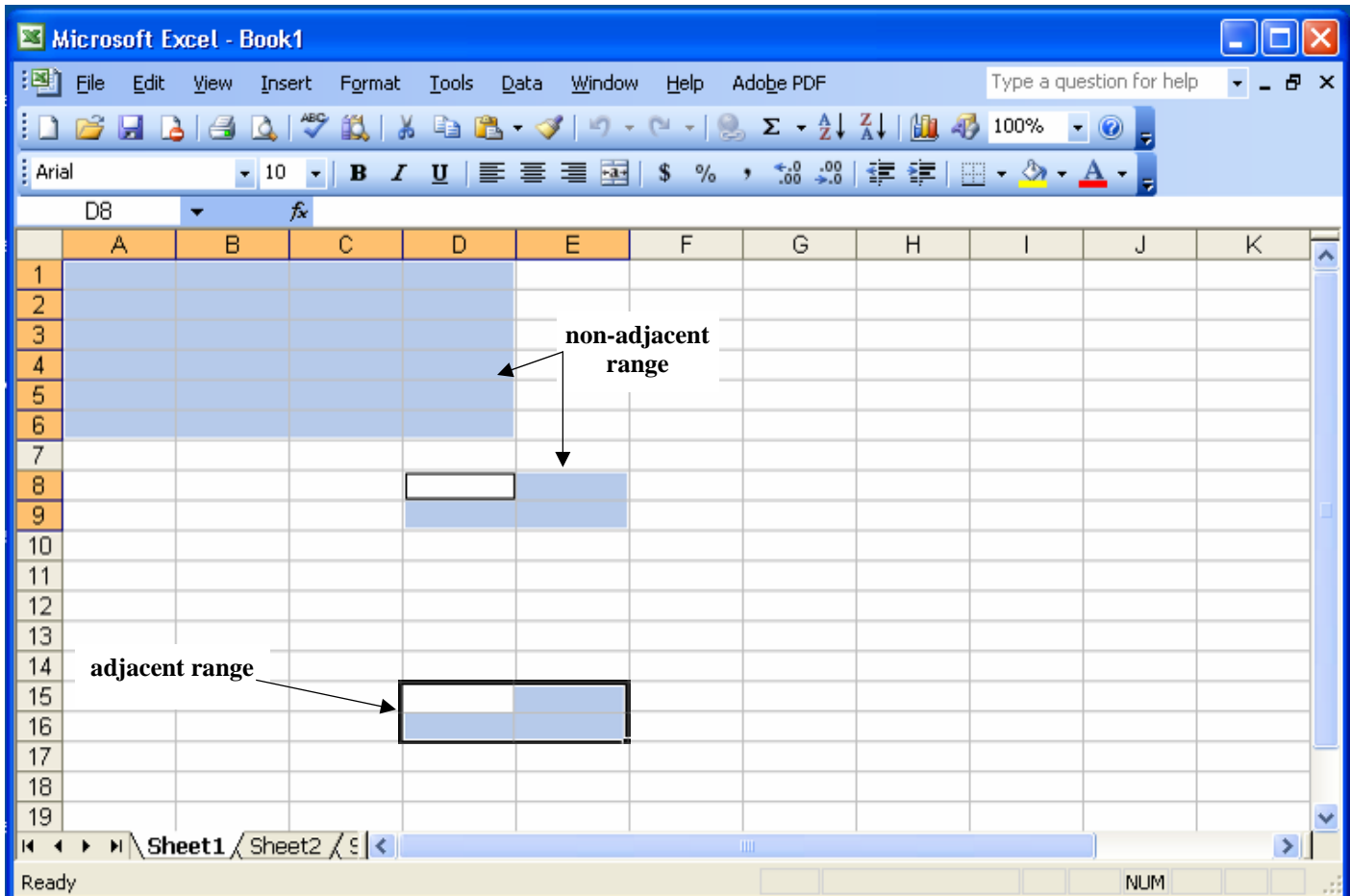


Figure 7

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How Do I Select Adjacent and Non-Adjacent Ranges?

- To **select an adjacent range**, click in on a cell in a corner of your selection and drag the mouse over the remaining cells. In Figure 8 below, in order to select D15 through E16, first click on D15 with your left mouse button. Now, drag the mouse to E16. You have now selected the adjacent range of D15:E16.
- To **select a non-adjacent range**, select an adjacent range of cells. Now, press and hold down the Ctrl key while you select another adjacent range of cells. Release the mouse button and the Ctrl key. In Figure 8 below, select the adjacent range of A1:D6. While holding down the Ctrl key, select the adjacent range of D15:E16. Now release both the mouse button and the Ctrl key. You have just selected the non-adjacent range of A1:D6; D15:E16.

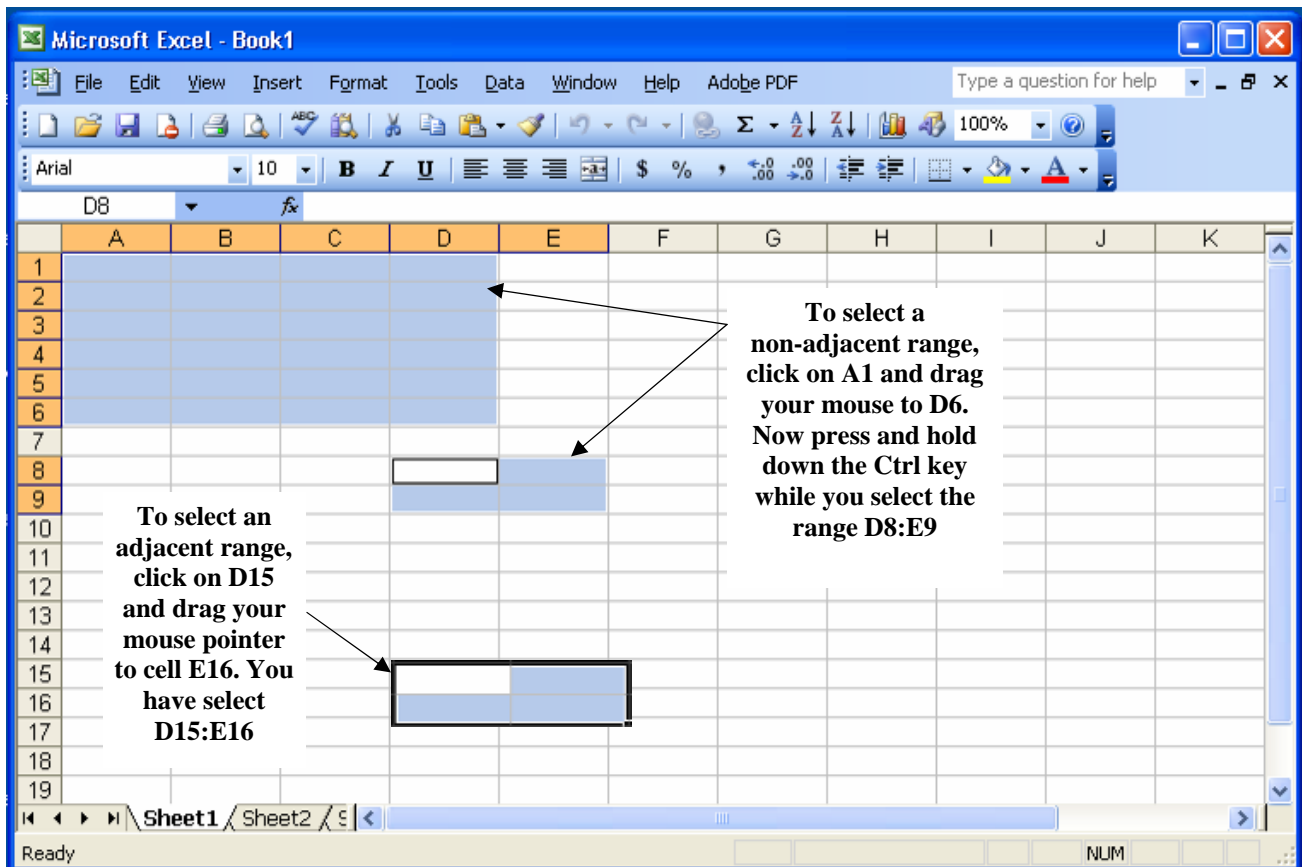


Figure 8

How Do I Select Rows and Columns?

- To select an entire column, click on the **column heading**. In Figure 9, column heading G was selected.
- To select an entire row, click on the **row heading**. In Figure 9, row heading 12 was selected.
- If you need to change the **width of a column**, click on the column heading.
- Next, right click and select change column width. Enter the correct width in the box provided. Click OK.
- Alternatively, you could select the column heading and go to File Menu then Format. Select column width and enter your new width.
- If you need to change the **height of a row**, click on the row heading. Now, right click and select row height. Enter the correct height in the box provided. Click OK.
- Alternatively, you could select the row heading and go to File Menu then Format. Select the row height and enter your new height.
- Another way to **resize a column or row** is to place the mouse pointer between two columns or rows. Once the pointer changes from a white cross to a black cross and while holding down the left mouse button, either drag left/right or up/down to increase or decrease your column or row.



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How Do I Select Rows and Columns? (continued)

- If you want to **change the width of more than one column**, click with your mouse on the column heading. While holding down your primary (left) mouse button, drag your pointer over the others columns you wish to change. Now, right click and follow the same directions as above.
- Repeat the same procedure for changing multiple row heights by clicking on a row heading and dragging over the other rows.
- To **change all the column widths and row heights at once**, click on the gray cell where the column headings and row heading merge. Basically, it is diagonal from cell A1. Once the enter worksheet is selected, go to File, Format and change column width and row height.

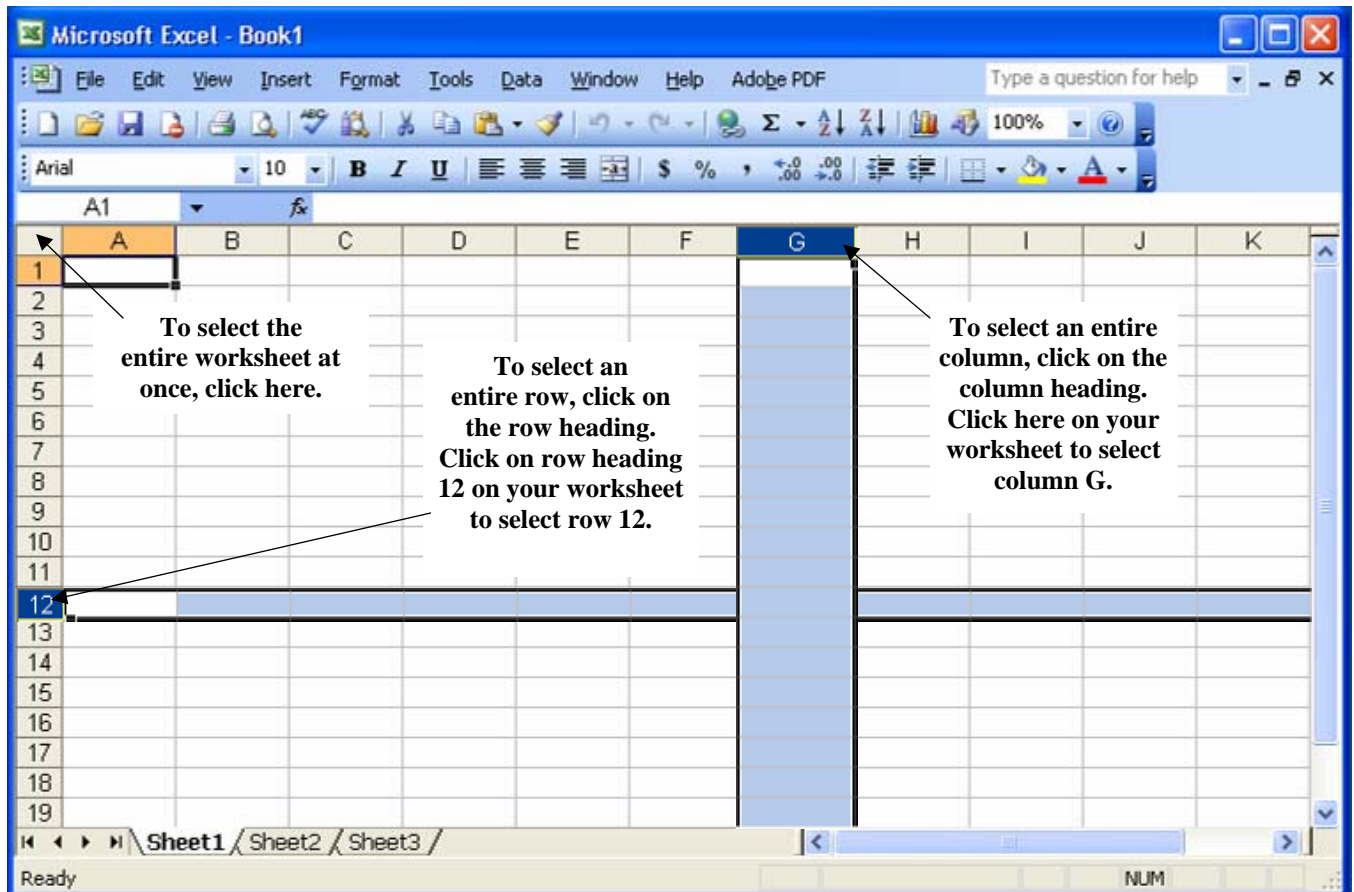


Figure 9

What Are Formulas?



- A **formula** is an expression or cell entry that performs some sort of calculation. An equal sign (=) is always the first part of a formula followed by an expression that calculates a value. Always remember that if you fail to enter the equal sign (=), Excel will treat your expression as text.
- If an expression contains more than one mathematical operator, Excel will perform the calculation in the order of precedence. See the following chart for examples of **mathematical operators**. The order of precedence is exponentiation first, multiplication/division second, and addition/subtraction last. If you add parentheses to a formula, Excel will perform that calculation first.

Operator	Description
+	Addition
-	Subtraction
*	Multiplication
/	Division
^	Exponentiation

Exponentiation first, multiplication/division second, and addition/subtraction last. If you add parentheses to a formula, Excel will perform that calculation first.

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How Do I Enter and Format Data?

- There are **two different types of data: text and values**.
- **Text** is an example of data that will not be used in a calculation. Besides words, phrases or symbols, an example of a numeric text entry would be your phone number or social security number.
- **Value** is an example of data that contain only numbers and may be used in calculations. Dates and numbers are examples of values.
- Enter a text data in cell B1. Type the phrase “First Quarter” and press Tab. Whether you enter text, a number or a symbol in a cell, it will also appear in your formula bar until you are finished and move off that cell.
- Notice how the text you entered is wider than column B. Excel will display the additional text to the right of the active cell if those cells are blank.
- Now, in cell C1 type, “Second Quarter” and press Tab. Part of the text from cell B1 is now hidden by the text in cell C1. Expand both columns to fit the text you entered.
- Complete cell D1 with “Third Quarter” and E1 with “Fourth Quarter”. Expand columns D and E.
- Select range B1:E1. Click on the Bold icon, and Enlarge the font size to 11. From the Menu File, go to Format, point to Column, then AutoFit Selection.
- Select the same range and click on the Center icon and change the font color to Dark Blue.
- Now click on B2. Type 1,000 (press Enter) In cell B3, type 2,000 (press Enter) In cell B4, type 3,000 (press Enter).
- Your active cell is now B5. Click on the AutoSum icon (press Enter). Arrow back up to cell B5 and notice the formula bar =SUM(B2:B4)
- This formula indicates that the SUM of range B2:B4 should be entered here in cell B5.
- Click on cell B5 and make it bold and italicized. Click on cell A5 and type “Total”. Make it bold and italicized.
- Arrow up to cell A2, and type “Month 1” (press Enter). In cell A3, type “Month 2” (press Enter). In cell A4, type “Month 3” (press Enter).
- Enter the remaining data as shown in the figure below. Try to recreate the same formatting.



	A	B	C	D	E	F
1		First Quarter	Second Quarter	Third Quarter	Fourth Quarter	
2	<i>Month 1</i>	1000	500	800	1000	
3	<i>Month 2</i>	2000	600	500	1000	
4	<i>Month 3</i>	3000	700	2000	2000	
5	<i>Total</i>	\$6,000.00	\$1,800.00	\$3,300.00	\$4,000.00	
6						
7	<i>Grand Total</i>	\$15,100.00				
8	<i>Average</i>	\$3,775.00				
9						
10						

Figure 10

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How do I save my document?

- To save a file, click the **Save** button on the Standard toolbar, or from the File menu, click on File, then select **Save As**. Figure 11 will then appear.
- Type the name for the file to be saved. It will replace the default name in the “File Name” box.
- Click the **Folder Name** and then choose the folder where you wish to store the file. To save to a floppy disk, insert the disk into the floppy drive and then choose 3 ½” Floppy (A:) as the Folder Name.
- The File Type will default to the application’s type. If you want to save to a different format, choose that format in the **File Type** box.
- Click the **Save** button.

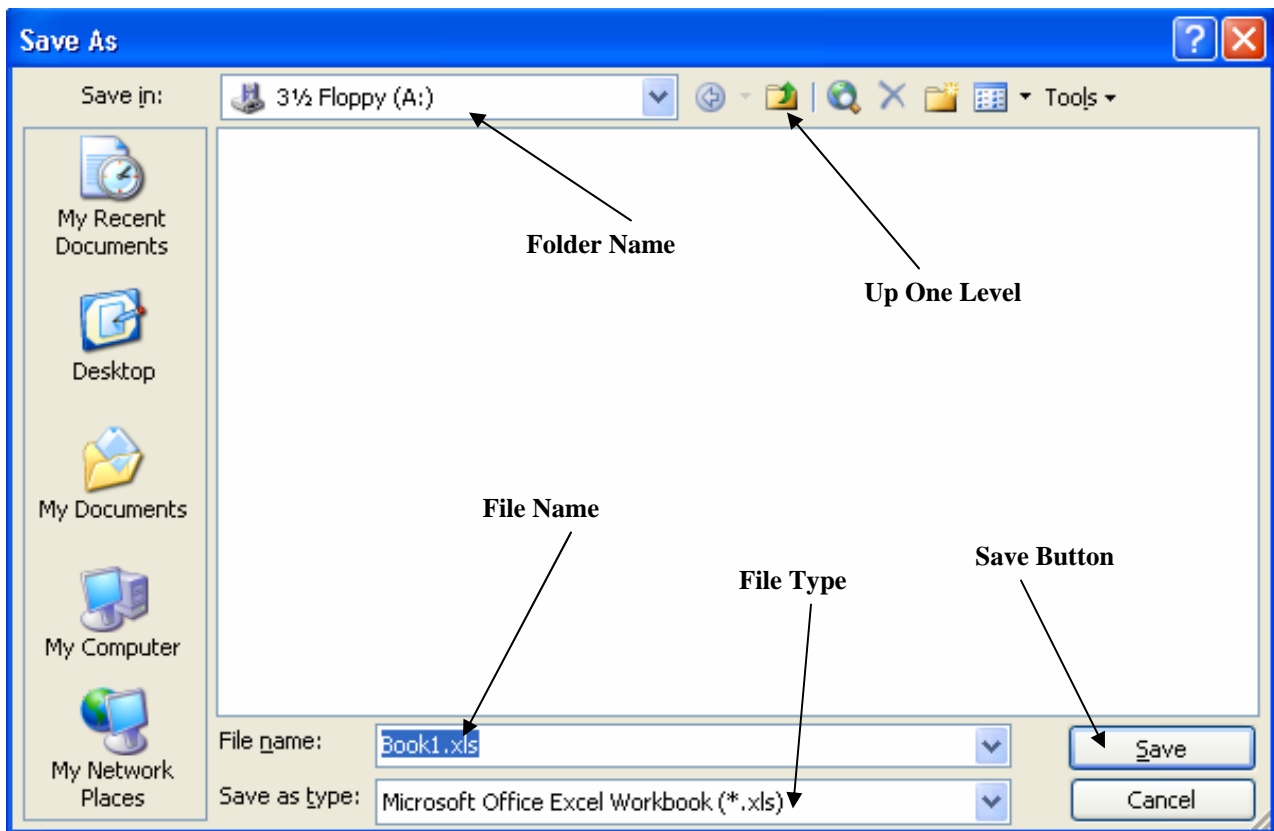


Figure 11

How do I open my document?

- To open an existing file, choose **Open** icon from the Standard toolbar. Choose the Folder Name where the file is located and then click on the file when it appears in the Folder Contents area. Then click on the **Open** button.
- If you know a file is on the disk in that folder, and it isn't listed in the Folder Contents area, try changing the FILE TYPE to ALL FILES. If it is in that folder, the file name will appear.
- To start a new, blank worksheet, click on the new worksheet icon on the Standard toolbar (see Figure 2).
- To start a new document using a template, choose **New** from the File menu. The different templates and recently used templates are now available that can be used to create a new document.

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How Do I Create a Graph?

- If you would like to try to create a chart from your worksheet, follow the next steps carefully.
- Select the range A1:E5. Click on the Chart Wizard icon located on the Standard Toolbar.
- Chart Type: Column is already selected. Now, select the first one on the second row which is “Clustered column with a 3-D visual effect.” See Figure 12.
- Click “Next” for the next three screens. Finally click “Finish.”

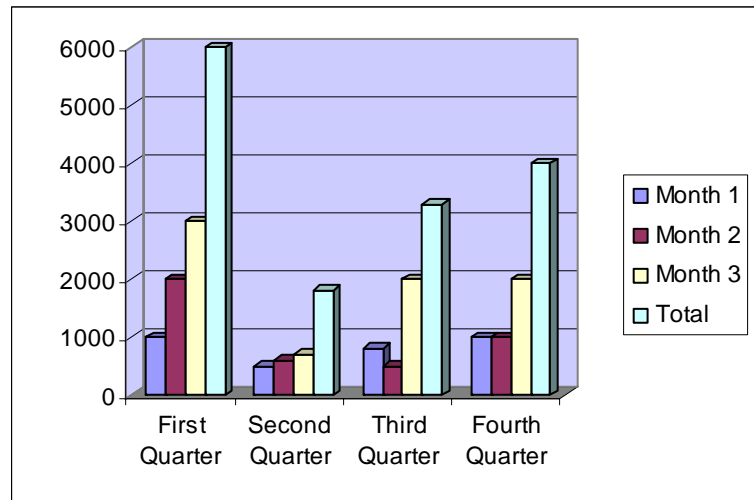
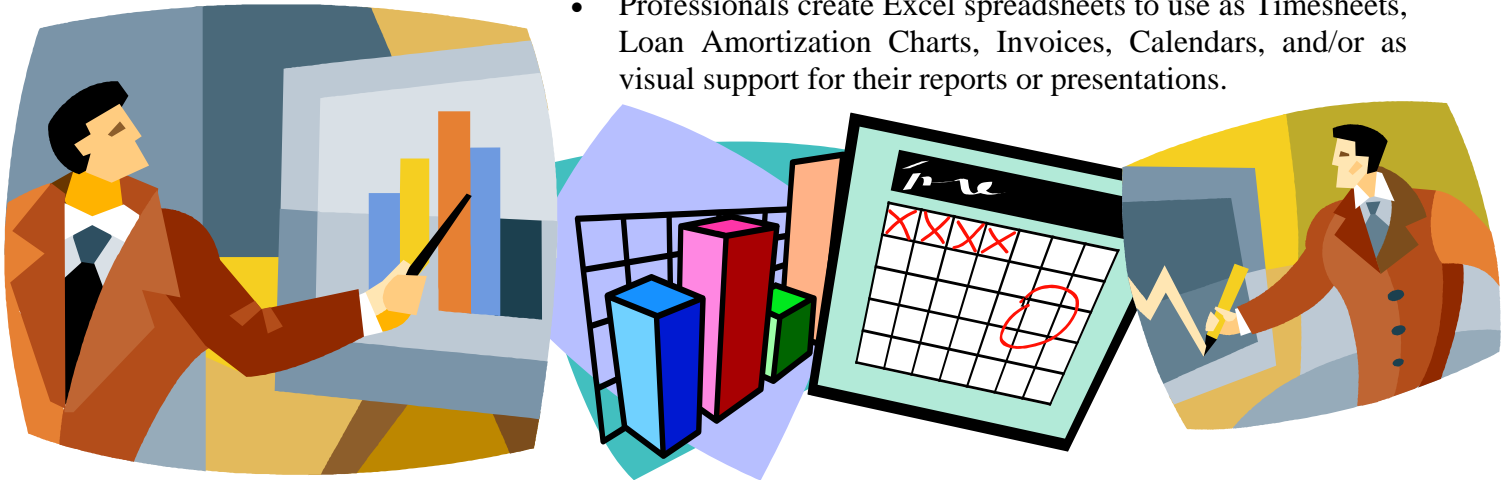


Figure 12

What Are Some Examples of Worksheets in Excel?

- There are a multitude of different ideas for using spreadsheets in Excel.
- You can create charts and graphs that will automatically change (or update) as you edit or enter new information.
- Professionals create Excel spreadsheets to use as Timesheets, Loan Amortization Charts, Invoices, Calendars, and/or as visual support for their reports or presentations.



How Do I Use Page Setup for my worksheet?

- To set your margins and page layout from the File menu, select **File** then **Page Setup**. Set the margins (in inches) on the **Margins** tab. From the Margins tab, you can also center your spreadsheet horizontally or vertically on the page.
- You can change both the page orientation (portrait or landscape) and the paper size from the **Page** tab.
- If you would like to create a header or footer on your worksheet, then click on the **Header/Footer** tab and select the custom option.
- The **Sheet** tab allows you customize the way the worksheet will print.

Help!

- If you are uncertain where to find a command or how to perform a particular task, always use **Help** located on the File menu. A window will pop up after opening **Microsoft Excel Help** (or press key F1).
- Enter the word or phrase for assistance and then click on the green arrow. Then select the topic that would be most appropriate. Good luck and enjoy learning!



Introduction to Microsoft Excel

The following is a list of a few of the many computer books available here in the library.

- Dinwiddie, Robert. **Spreadsheets: creating worksheets.** London; New York: Dorling Kindersley, 2000.
Call Number: NONFIC 005.369 DINWIDDI
- Etherington, Sue. **Spreadsheets: formatting and printing.** London; New York: Dorling Kindersley, 2000.
Call Number: NONFIC 005.369 ETHERING
- Ifrah, Georges. **The Universal History of Computing.** New York: John Wiley, 2000.
Call Number: NONFIC 004.09 IFRAH
- Taylor, Dennis P. **Teach yourself Microsoft Excel 2000.** Foster City; California: IDG Books Worldwide, c1999.
Call Number: NONFIC 005.369 TAYLOR
- Ulrich, Laurie Ann. **How to do everything with Office XP.** New York: Osborne/McGraw-Hill, 2001.
NONFIC 005.369 ULRICH
- Walkenbach, John. **Excel 2002 Bible.** New York: Hungry Minds, c 2001.
Call Number: NONFIC 005.369 WALKENBA
- Willett, Edward. **Office XP Bible.** Indianapolis: Hungry Minds, c2001.
Call Number: NONFIC 005.369 WILLETT

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