



MICROSOFT EXCEL

INTRODUCTION

- ✓ Microsoft Excel is allow you to create professional spreadsheets and charts. It is quite useful in entering, editing, analysis and storing of data.
- ✓ It performs numerous functions and formulas to assist you in your projects.
- ✓ MS-EXCEL is the replacement of calculator, pencil work. You can create charts with colors, add clip arts in excel .

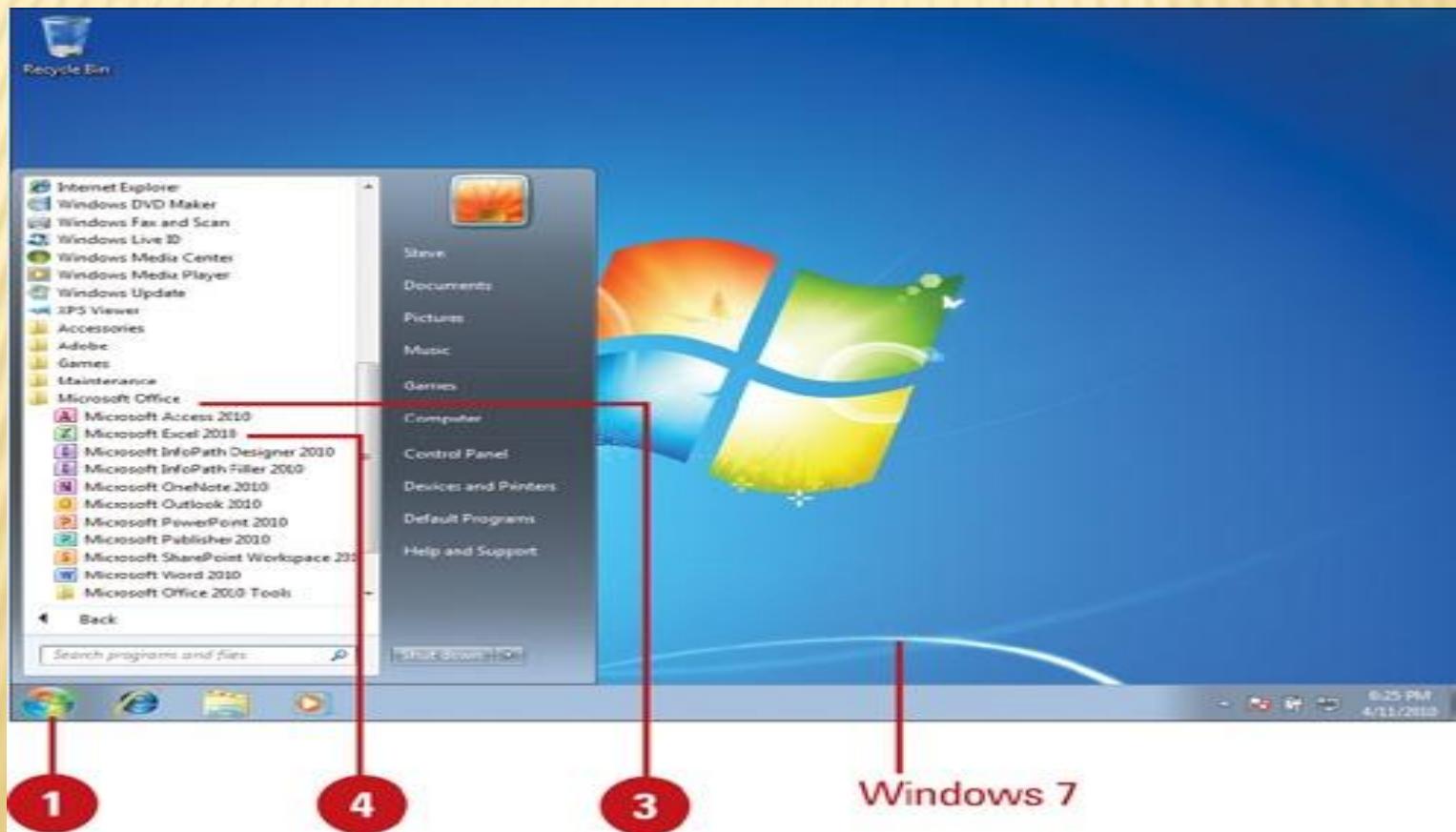
-
- ✓ A new workbook contains 256 worksheets.
The worksheet is a grid of **COLUMNS** and **ROWS**.
 - ✓ The intersection of a column and a row is called a **CELL**.
 - ✓ Each cell on the spreadsheet has a **CELL ADDRESS** that is the column letter and the row number.

FEATURES:

- ✖ Data entry using keyboard
- ✖ Worksheet can be saved and retrieved for further editing
- ✖ Various formatting options can be used to format the data stored in the cells
- ✖ Allows mathematical calculations
- ✖ Automatic recalculation is done when previous entries are changed
- ✖ Results calculated are reliable
- ✖ You can import and export data from one worksheet to another
- ✖ The scenario option available helps us to answer “what if” questions

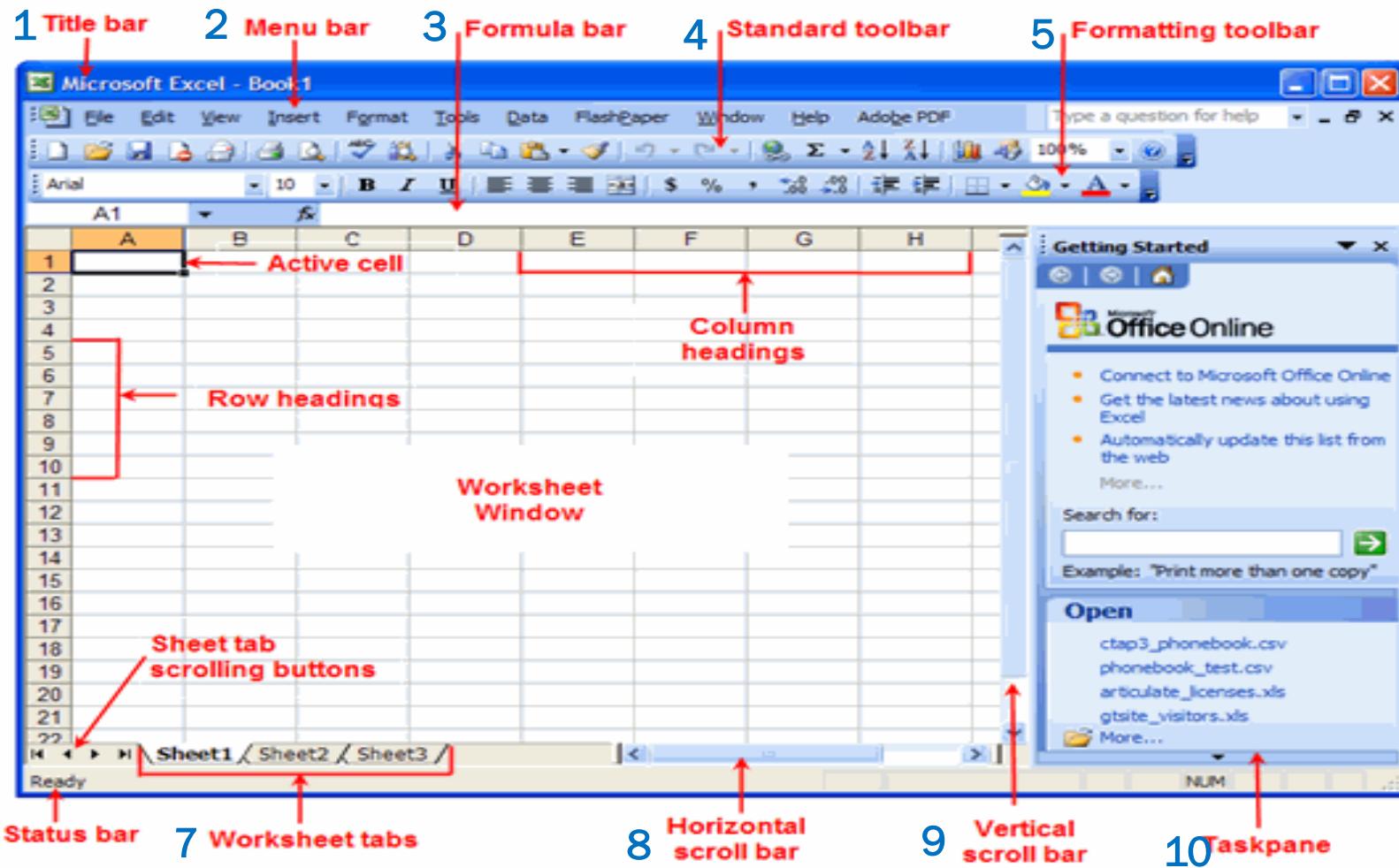
STARTING MICROSOFT EXCEL

1. Double click on the Microsoft Excel icon on the desktop. OR
2. Click on Start → Programs → MS-Office->Microsoft Excel OR
3. Write the EXCEL on run dialog box.



ANATOMY OF MS-EXCEL

When you open MS Excel a window on the screen flashes it has number of parts.



1. THE TITLE BAR :-

Title bar is located at the very top of the screen. On the title bar, Microsoft excel displays the name of the workbook you are currently using. At the top of your screen, you should see “Microsoft excel-book1” or a similar name.

2. THE 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.

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- **FILE** :- file-related commands to open , save ,close ,print and cerate new files.
 - **EDIT** :- commands to copy, cut, paste, find, and replace text.
 - **VIEW**:- commands to change how the workbook is displayed on the screen.
 - **INSERT**:- list 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.
 - **HELP**:- get help on using the excel program

3. THE FORMULA BAR:- If the formula bar is turned on, the cell address displays on the left side of the formula bar. Cell entries display on the right side of the formula bar.

The screenshot shows a Microsoft Excel interface. The ribbon at the top has tabs: File (selected), Home, Insert, Page Layout, Formulas (selected), Data, Review, and View. The 'Formulas' tab is active, with its icon (fx) highlighted. Below the ribbon is the 'Function Library' section, which includes icons for AutoSum (Σ), Recently Used, Financial, Logical, Text, Date & Time, Lookup & Reference, Math & Trig, and More. The 'Insert Function' button is also visible. The formula bar below the ribbon shows the cell reference 'C1' and the formula '=ROUND((A1+A2)/A3*A4,1)'. The main worksheet area shows a table with columns A, B, and C. Row 1 contains values 100, 157, and 12764.3 respectively. Row 2 contains values 157, 45, and 2235 respectively. Row 3 is empty. Row 4 contains values 45, 2235, and 2235 respectively. Row 5 is empty. The cell C1 is selected and highlighted in yellow.

	A	B	C	D	E	F	G
1	100		12764.3				
2	157						
3	45						
4	2235						
5							

4. STANDARD TOOLBAR

- Toolbar is a collection of tools or icons displayed in a long bar that can move or reshaped to make it convenient to use.
- Each icon in a toolbar corresponds to a command

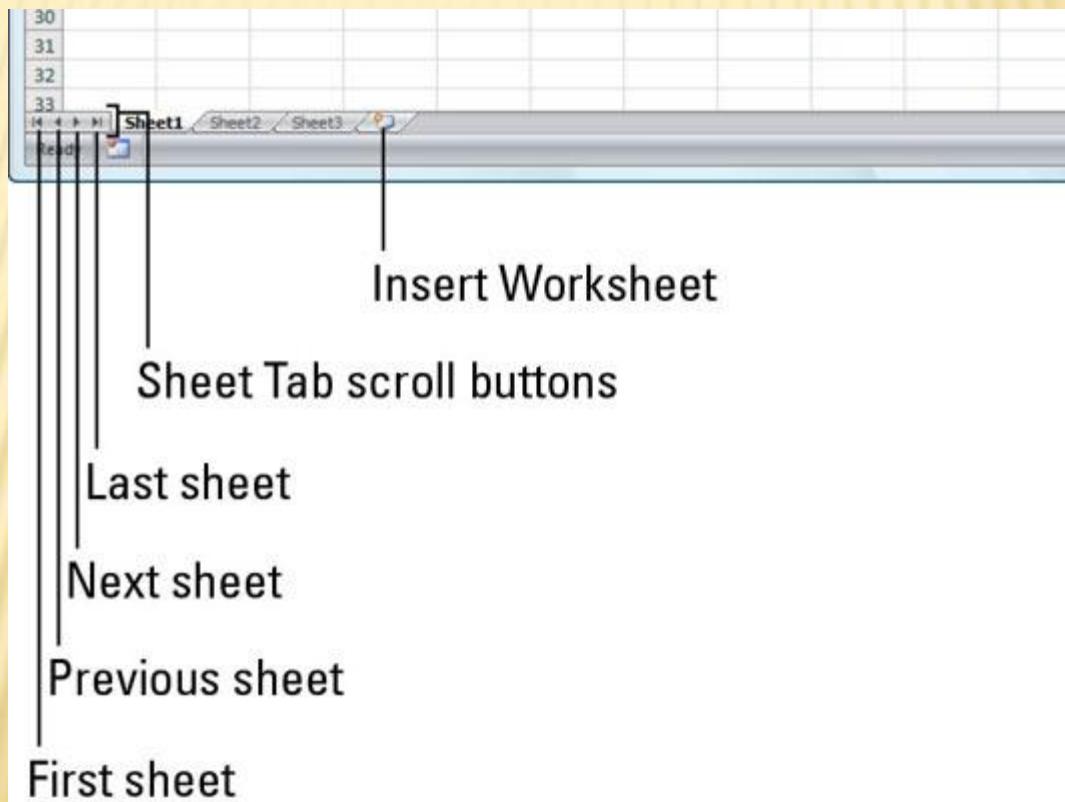
5. FORMATTING TOOLBAR:

- Here various formatting options are available.

6. Status bar:

- displays the name of the command at the left hand side of status bar. It gives status operations in program.

7. 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 2010. 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.



HORIZONTAL SCROLLBAR

VERTICAL SCROLLBAR

- ✖ Using horizontal and vertical scroll bar you can move(up or down) and (left or right) respectively.

ENTERING TEXT

CELLS:- The workbook is made up of cells. There is a cell at the intersection of each row and column. A cell can contain a value, a formula, or a text entry. A text entry is used to label or explain the contents or the value of a formula.

ROWS, COLUMNS AND SHEETS:- The Excel worksheet contains 16,384 rows that extend down the worksheet, numbered 1 through 16384.

The Excel worksheet contains 256 columns that extend across the worksheet , lettered A through Z, AA through AZ, BA through BZ, and continuing to IA through IZ.

The Excel worksheet can contain as many as 256 sheets, labeled sheet1 through sheet256. The initial number of sheet in a workbook, which can be changed by the user is 16.

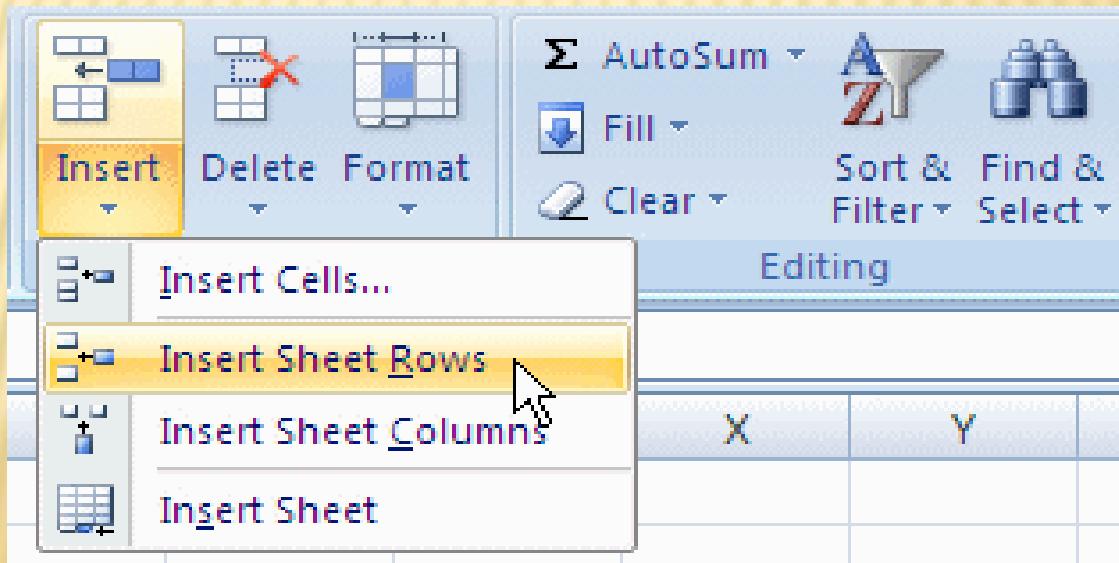
INSERTING CELLS:

WHEN YOU CREATE A WORKSHEET THE NEED TO MOVE THE CELLS OCCURRED FREQUENTLY. THAT IS INSERTING CELLS, DELETING CELLS.

➤ INSERTING A COLUMN:

The following are the various steps to insert column in the worksheet:

1. Select the range of cells in your worksheet.
2. Right click the mouse a shortcut menu appears OR you can also select cells option from INSERT menu.



- 3. Select Insert dialog box shortcut menu.**
- 4. Four options appeared.**
 - a) Insert Cell.**
 - b) Insert Sheet Rows**
 - c) Insert Sheet Columns**
 - d) Insert Sheet**
- 5. Selected cells will be free and now you can type the data onto cells.**

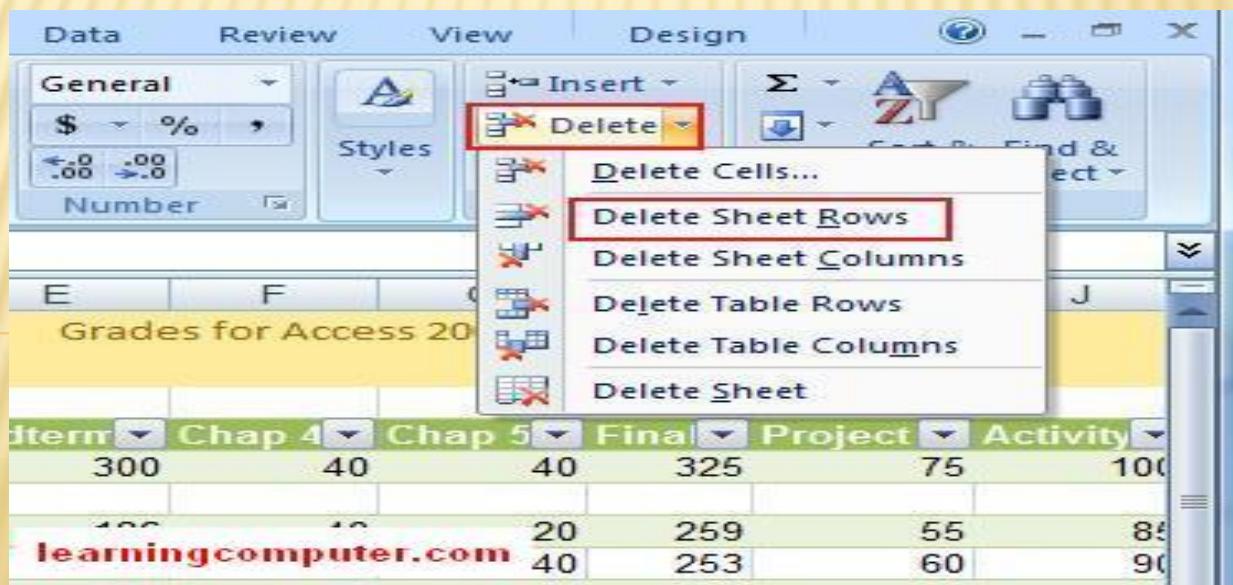
-
- **INSERTTING A ROW** : Inserting rows means inserting row somewhere in the worksheet. The following are the steps to insert row:
 1. Click the header of a row in your worksheet.
 2. Right click the mouse a shortcut menu appears.
 3. Select Insert dialog box a new blank row appears on selected row.
 4. When click insert dialog box anew blank row appears on selected row.
 5. You can now type the data in that row.

DELETING CELLS:

DELETING ROW OR COLUMN MEANS YOU WANT TO DELETE ROW OR COLUMN FROM WORKSHEET.

THE STEPS TO DELETE ROW OR COLUMN ARE SAME AS UNDER:
➤ DELETING A ROW OR COLUMN:

1. Click the header of a row in your worksheet.
2. Right click the mouse a shortcut menu appears.
3. Select delete dialog box from shortcut menu.
4. Five options appeared:



5. AFTER CLICKING DELETE BOX THE SELECTED ROWS GETS DELETED FROM WORKSHEET.

➤ DELETING A CELL ENTRY:

To delete an entry in a cell or a group of cells, you place the cursor in the cell or highlight the group of cells and press DELETE.

- 1. Place the cursor in cell A5.**
 - 2. Press the Delete key.**
-

WORKING WITH FORMULAS AND FUNCTIONS

Entering a Formula:

- A formula is an expression that returns a value.
- A formula is written using operators that combine different values, returning a single value that is then displayed in the cell.
- The most commonly used operators are arithmetic operators.
- The order of precedence is a set of predefined rules used to determine the sequence in which operators are applied in a calculation.

Sample Excel formulas using arithmetic operators				Figure 1-12
Operation	Operator	Example	Description	
Addition	+	=10+A5 =B1+B2+B3	Adds 10 to the value in cell A5 Adds the values of cells B1, B2, and B3	
Subtraction	-	=C9-B2 =1-D2	Subtracts the value in cell B2 from the value in cell C9 Subtracts the value in cell D2 from 1	
Multiplication	*	=C9*B9 =E5*0.06	Multiplies the value in cell C9 by the value in cell B9 Multiplies the value in cell E5 by 0.06	
Division	/	=C9/B9 =D15/12	Divides the value in cell C9 by the value in cell B9 Divides the value in cell D15 by 12	
Exponentiation	^	=B5^3 =3^B5	Raises the value in cell B5 to the third power Raises 3 to the power specified in cell B5	

ENTERING A FORMULA:

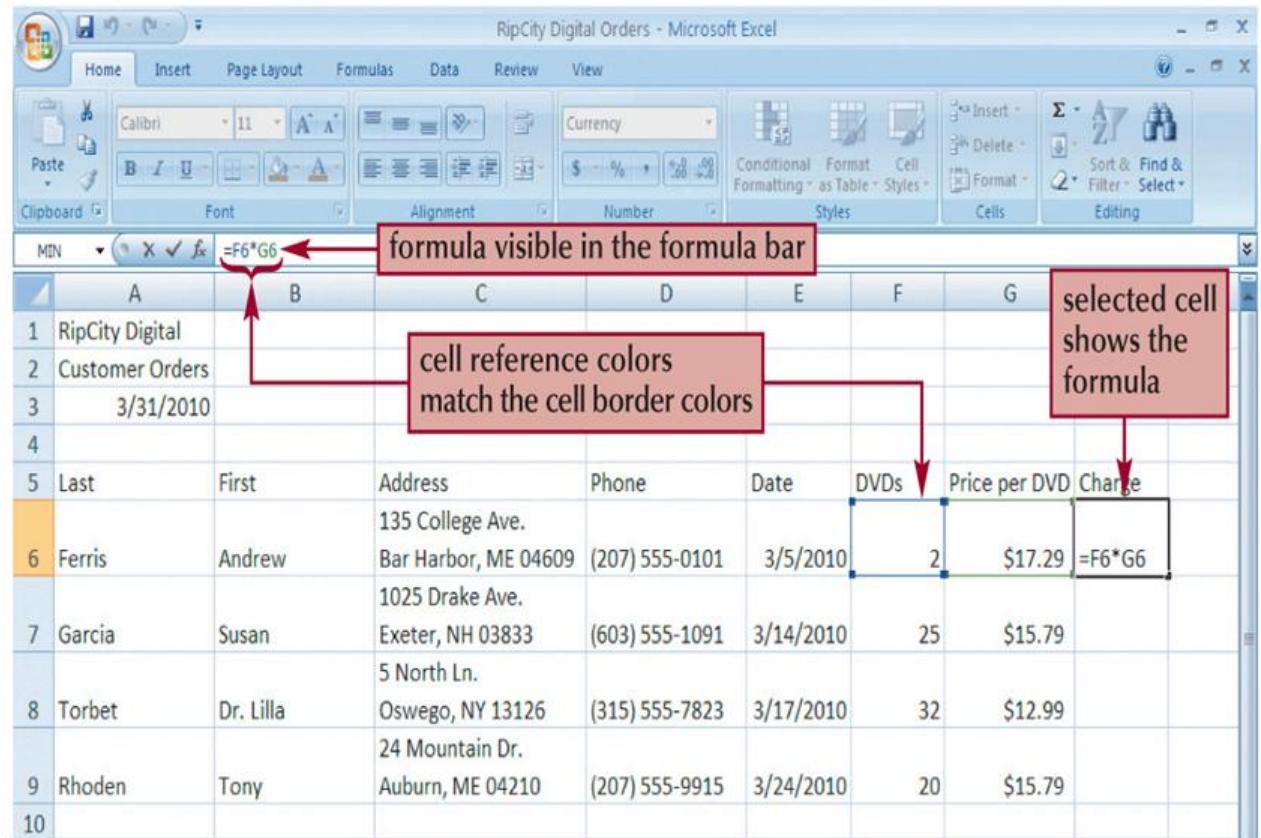
Figure 1-13 Examples illustrating order of precedence rules

Formula (A1=50, B1=10, C1=5)	Order of precedence rule	Result
=A1+B1*C1	Multiplication before addition	100
=(A1+B1)*C1	Expression inside parentheses executed before expression outside	300
=A1/B1-C1	Division before subtraction	0
=A1/(B1-C1)	Expression inside parentheses executed before expression outside	10
=A1/B1*C1	Two operators at same precedence level, leftmost operator evaluated first	25
=A1/(B1*C1)	Expression inside parentheses executed before expression outside	1

ENTERING A FORMULA:

- Click the cell in which you want the formula results to appear.
- Type = and an expression that calculates a value using cell references and arithmetic operators.
- Press the Enter key or press the Tab key to complete the formula.

Figure 1-24 ➔ Formula references color coded



COPYING AND PASTING FORMULAS

- With formulas, however, Excel adjusts the formula's cell references to reflect the new location of the formula in the worksheet

Formula copied and pasted ◀ ▶ **Figure 1-25**

The screenshot shows a Microsoft Excel spreadsheet titled "RipCity Digital Orders - Microsoft Excel". The ribbon menu is visible at the top, showing Home, Insert, Page Layout, Formulas, Data, Review, and View tabs. The Home tab is selected.

The formula bar shows the formula `=F8*G8` in cell H8. A red arrow points from this formula to a callout box labeled "formula pasted into cells H8 and H9".

The spreadsheet contains data for five customers (rows 6-10). The columns represent Last Name, First Name, Address, Phone, Date, DVDs, Price per DVD, and Charge. The "Charge" column shows the result of the formula being copied.

	A	B	C	D	E	F	G	H	I
1	RipCity Digital								
2	Customer Orders								
3	3/31/2010								
4									
5	Last	First	Address	Phone	Date	DVDs	Price per DVD	Charge	
6	Ferris	Andrew	135 College Ave. Bar Harbor, ME 04609	(207) 555-0101	3/5/2010	2	\$17.29	\$34.58	
7	Garcia	Susan	1025 Drake Ave. Exeter, NH 03833	(603) 555-1091	3/14/2010	25	\$15.79	\$394.75	
8	Torbet	Dr. Lilla	5 North Ln. Oswego, NY 13126	(315) 555-7823	3/17/2010	32	\$12.99	\$415.68	
9	Rhoden	Tony	24 Mountain Dr. Auburn, ME 04210	(207) 555-9915	3/24/2010	20	\$15.79	\$315.80	
10									
11									

Callout boxes highlight specific areas:

- "formula pasted into cells H8 and H9" points to the formula in cell H8.
- "formula copied from this cell" points to cell G8.
- "results of the pasted formula" points to the "Charge" column results (H8:H11).

INTRODUCING FUNCTIONS:

- A function is a named operation that returns a value
- For example, to add the values in the range A1:A10, you could enter the following long formula:

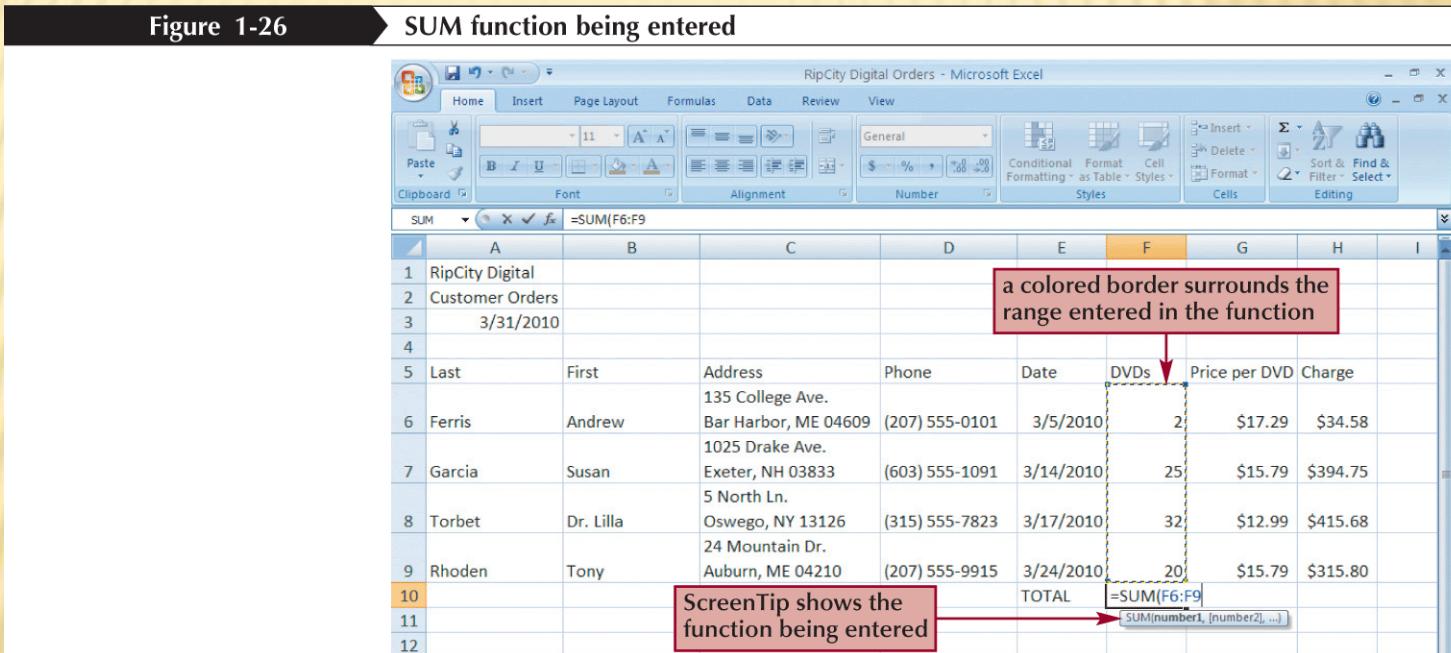
=A1+A2+A3+A4+A5+A6+A7+A8+A9+A10

Or, you could use the SUM function to accomplish the same thing:

=SUM(A1:A10)

ENTERING A FUNCTION:

Figure 1-26 ➔ SUM function being entered

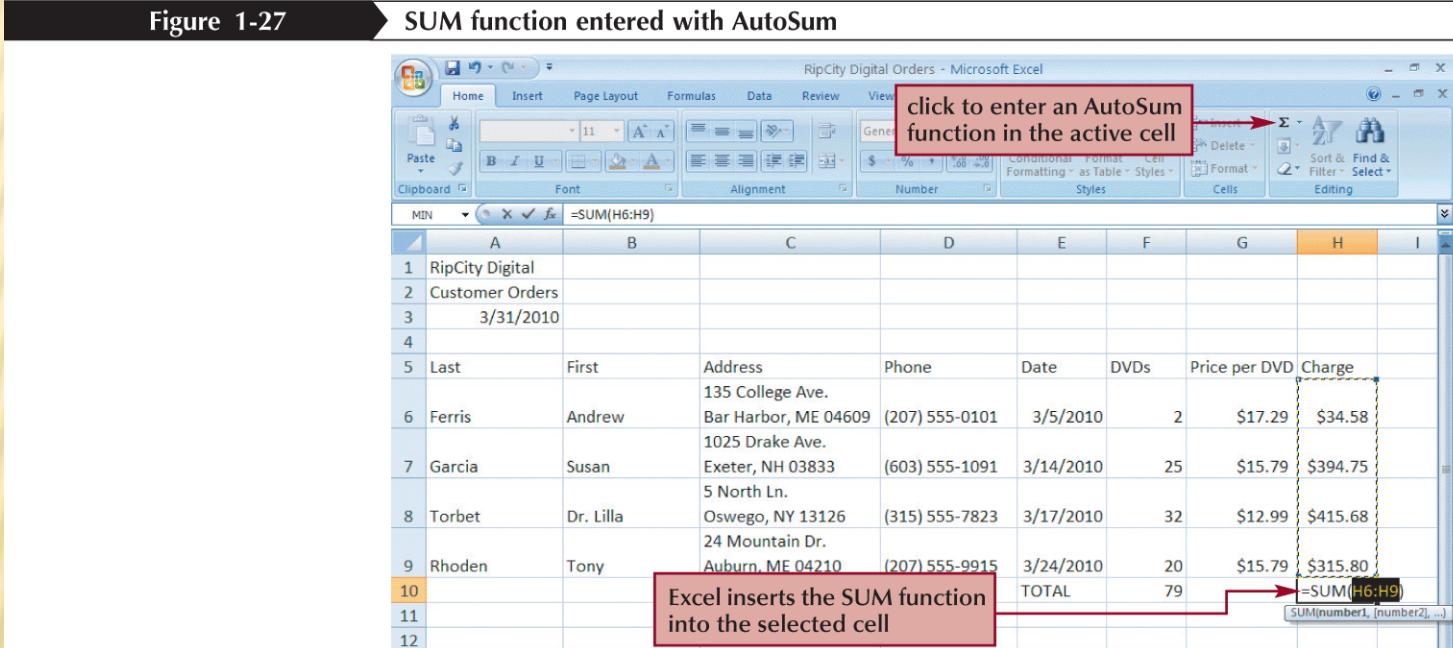


ENTERING FUNCTIONS WITH AUTOSUM:

- The AutoSum button quickly inserts Excel functions that summarize all the values in a column or row using a single statistic
 - + Sum of the values in the column or row
 - + Average value in the column or row
 - + Total count of numeric values in the column or row
 - + Minimum value in the column or row
 - + Maximum value in the column or row

ENTERING FUNCTIONS WITH AUTOSUM:

Figure 1-27 → SUM function entered with AutoSum



VIEWING AND PRINTING WORKSHEET FORMULAS

- You can view the formulas in a workbook by switching to formula view, a view of the workbook contents that displays formulas instead of the resulting values.
- To change the worksheet to formula view, press the **Ctrl+`** keys.
- Scaling a printout reduces the width and the height of the printout to fit the number of pages you specify by shrinking the text size as needed.

VIEWING AND PRINTING WORKSHEET FORMULAS:

Figure 1-34

Worksheet in formula view

RipCity Digital Order Report.xlsx - Microsoft Excel

Home Insert Page Layout Formulas Data Review View

Themes Colors Fonts Margins Orientation Size Print Area Page Setup Width: Automatic Height: Automatic Scale: 100% Gridlines Headings View Print Titles Bring to Front Align Selection Pane Group Send to Back Selection Pane Group Rotate Sheet Options Scale to Fit

A1 RipCity Digital

	D	E	F	G	H
1	text and numbers remain unchanged	underlying date values displayed rather than the formatted dates			formulas displayed instead of the resulting values
2					
3					
4					
5	Phone	Date	DVDs	Price per DVD	Charge
6	(207) 555-0101	40242	2	18.29	=F6*G6
7	(603) 555-1091	40251	25	15.79	=F7*G7
8	(315) 555-7823	40254	32	12.99	=F8*G8
9	(207) 555-9915	40261	20	15.79	=F9*G9
10		TOTAL	=SUM(F6:F9)		=SUM(H6:H9)
11					
12					

OBJECTIVES:

- **Create an embedded chart**
- **Work with chart titles and legends**
- **Create and format a pie chart**
- **Work with 3D charts**
- **Create and format a column chart**
- **Create and format a line chart**
- **Use custom formatting with chart axes**
- **Work with tick marks and scale values**
- **Create and format a combined chart**
- **Insert and format a graphic shape**
- **Create a chart sheet**

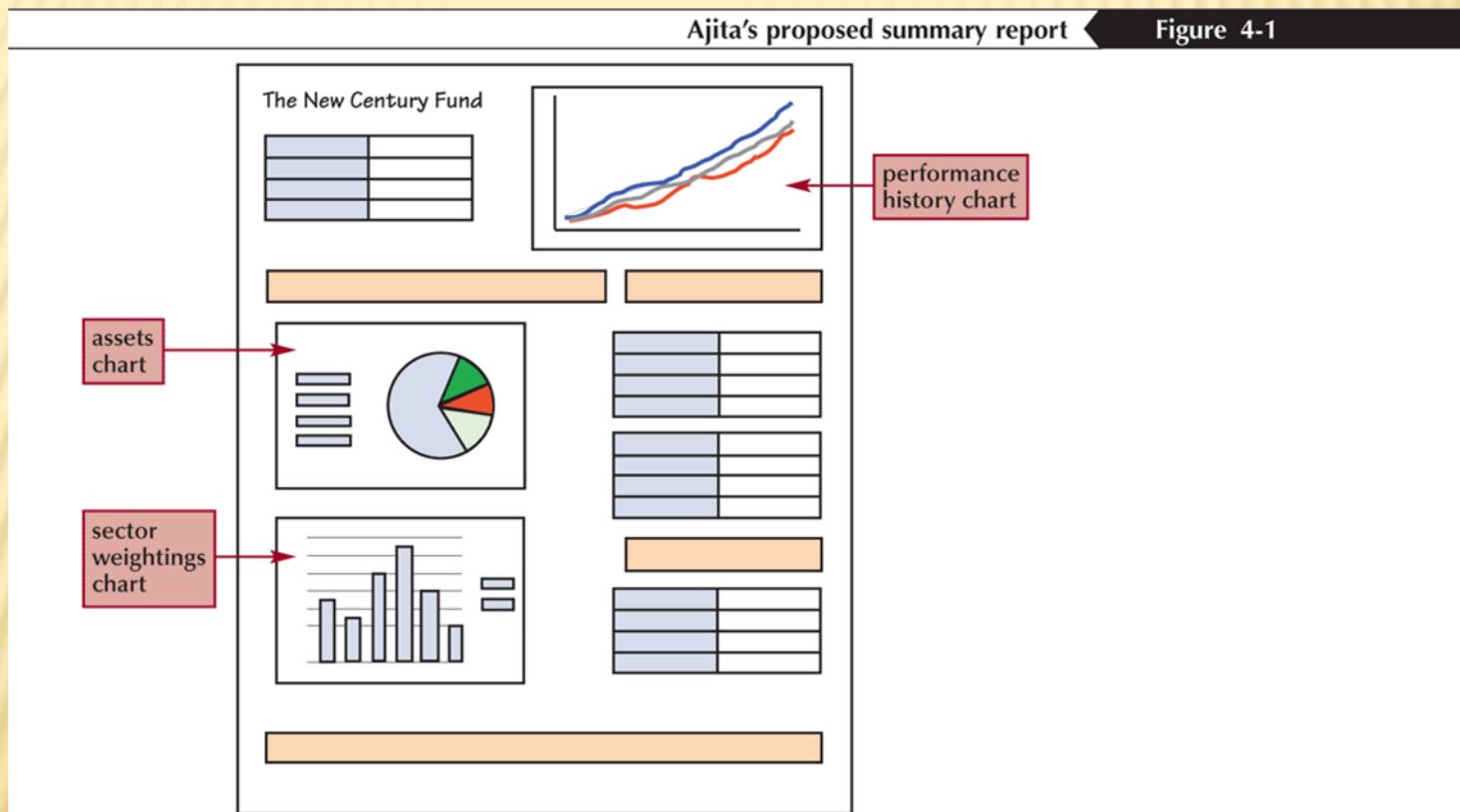
PROTECTING WORKSHEETS/WORKBOOKS

- ✖ We need to protect the cells, worksheets, workbooks from the access of unauthorized users who may change or copy the data.
- ✖ User can apply password to the worksheet in order to protect it. A password may also be applied to range of cells.
- ✖ Applying password will make worksheet read only.
- ✖ When you unprotect it, it will become read/write file.

CREATING CHARTS:

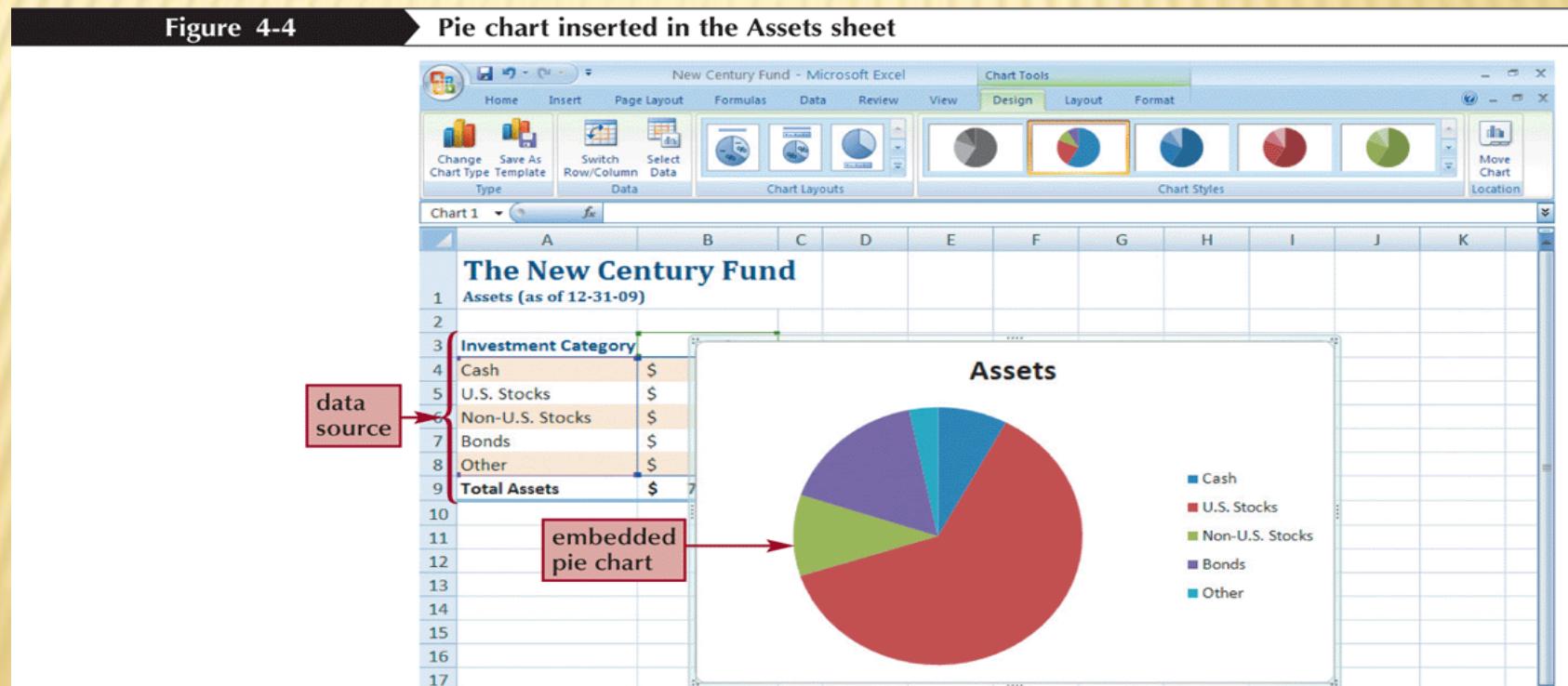
- A chart, or graph, is a visual representation of a set of data
- Select the data source with the range of data you want to chart
- In the Charts group on the Insert tab, click a chart type, and then click a chart subtype in the Chart gallery
- In the Location group on the Chart Tools Design tab, click the Move Chart button to place the chart in a chart sheet or embed it into a worksheet

CREATING CHARTS:



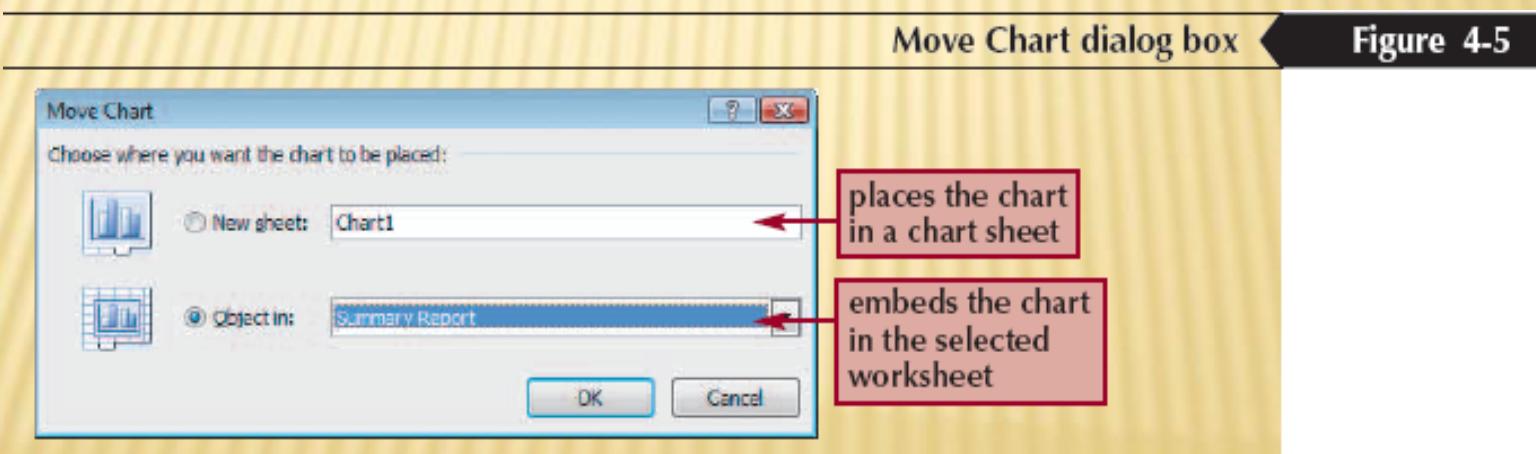
SELECTING A CHART TYPE:

- Click the Insert tab on the Ribbon
- In the Charts group, click the Pie button

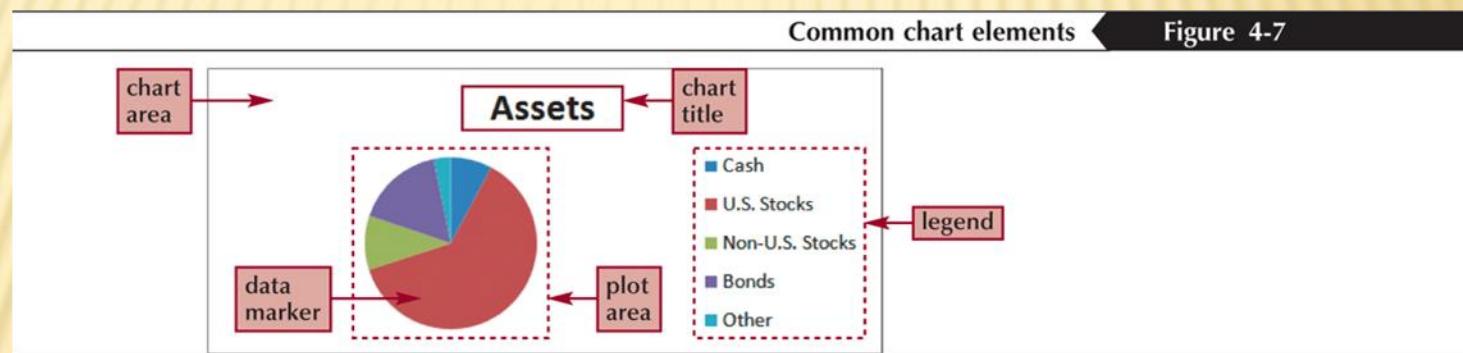


MOVING AND RESIZING CHARTS:

- By default, a chart is inserted as an embedded chart, which means the chart is placed in a worksheet next to its data source.
- You can also place a chart in a chart sheet.
- In the Location group on the Chart Tools Design tab, click the Move Chart button.

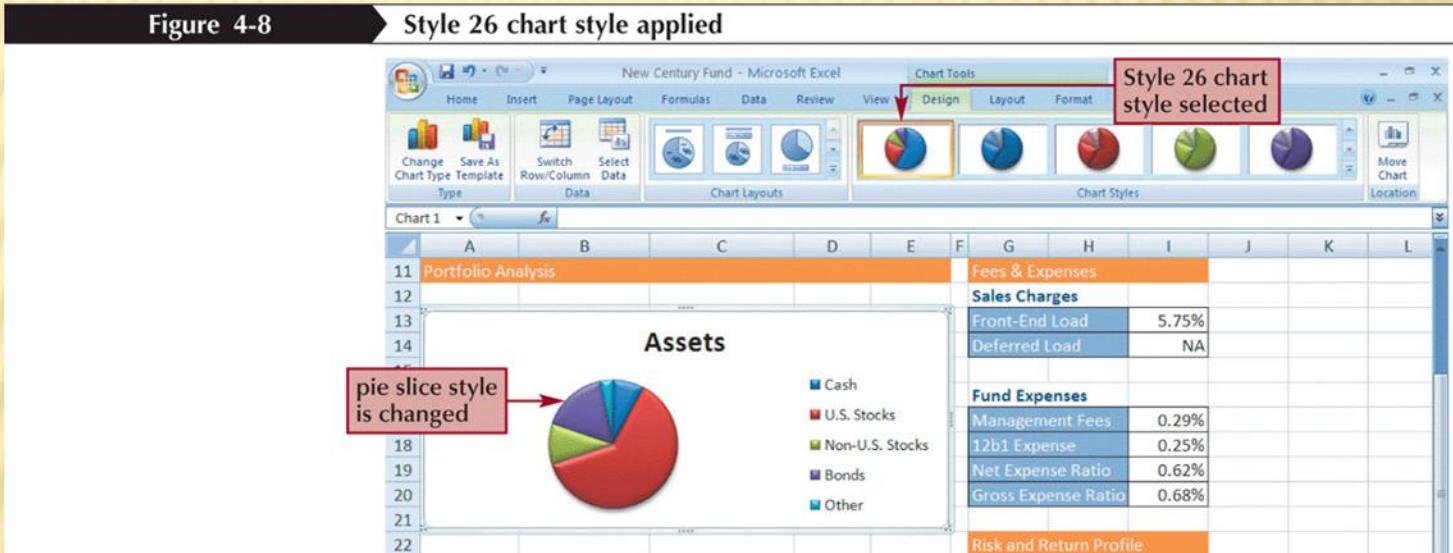


SELECTING CHART ELEMENTS:



CHOOSING A CHART STYLE AND LAYOUT:

Figure 4-8 Style 26 chart style applied



CHOOSING A CHART STYLE AND LAYOUT:

Figure 4-9

Pie chart layouts

Layout	Name	Pie chart with
	Layout 1	Chart title, labels, and percentages
	Layout 2	Chart title, percentages, and legend above the pie
	Layout 3	Legend below the pie
	Layout 4	Labels in pie slices
	Layout 5	Chart title and labels in pie slices
	Layout 6	Chart title, percentages, and legend to the right of the pie
	Layout 7	Legend to the right of the pie

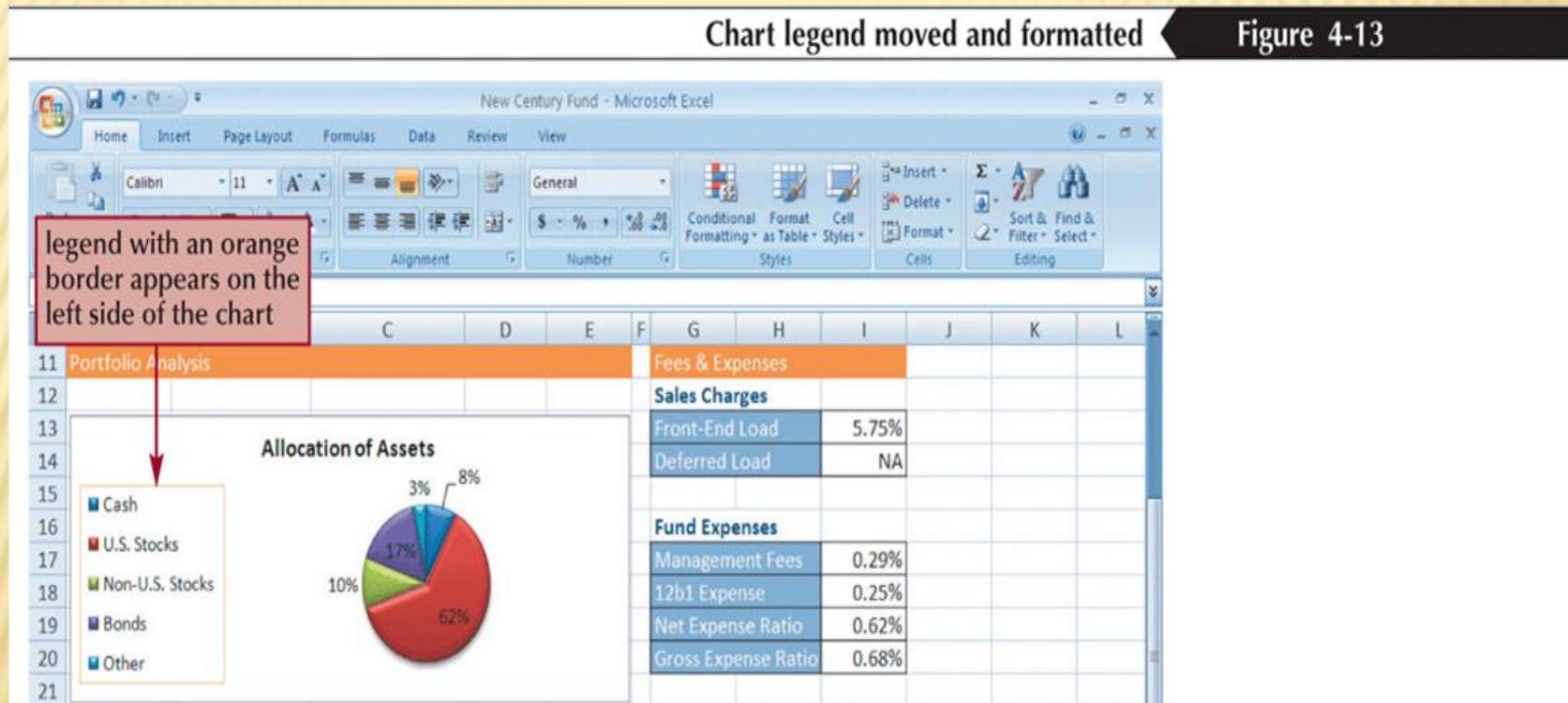
WORKING WITH THE CHART

TITLE AND LEGEND:

- Click the chart title to select it
- Type the chart title, and then press the Enter key
- Click the Chart Tools Layout tab on the Ribbon
- In the Labels group, click the Legend button, and then click the desired legend position

WORKING WITH THE CHART

TITLE AND LEGEND:

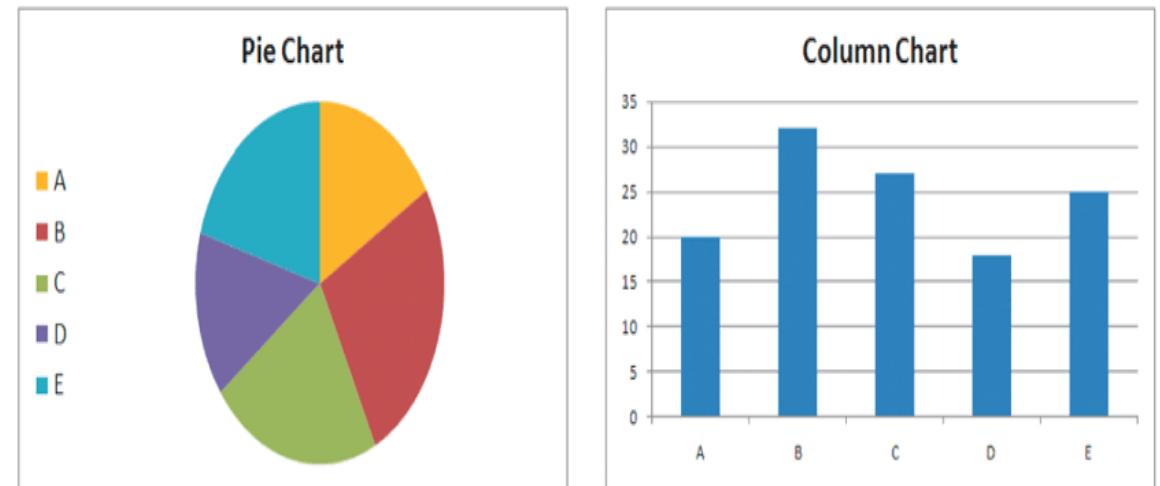


CREATING A COLUMN CHART:

- A column chart displays values in different categories as columns; the height of each column is based on its value
- The bar chart is a column chart turned on its side, so each bar length is based on its value

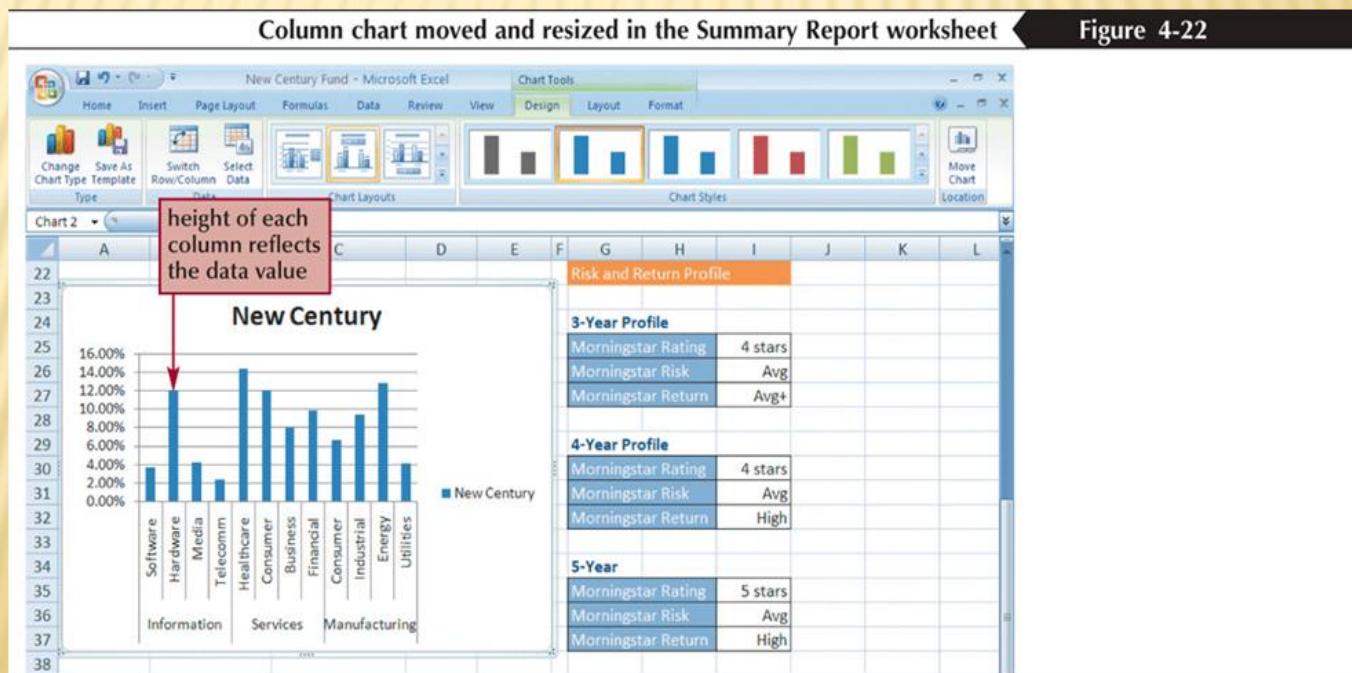
Figure 4-21

Same data displayed as a pie chart and a column chart



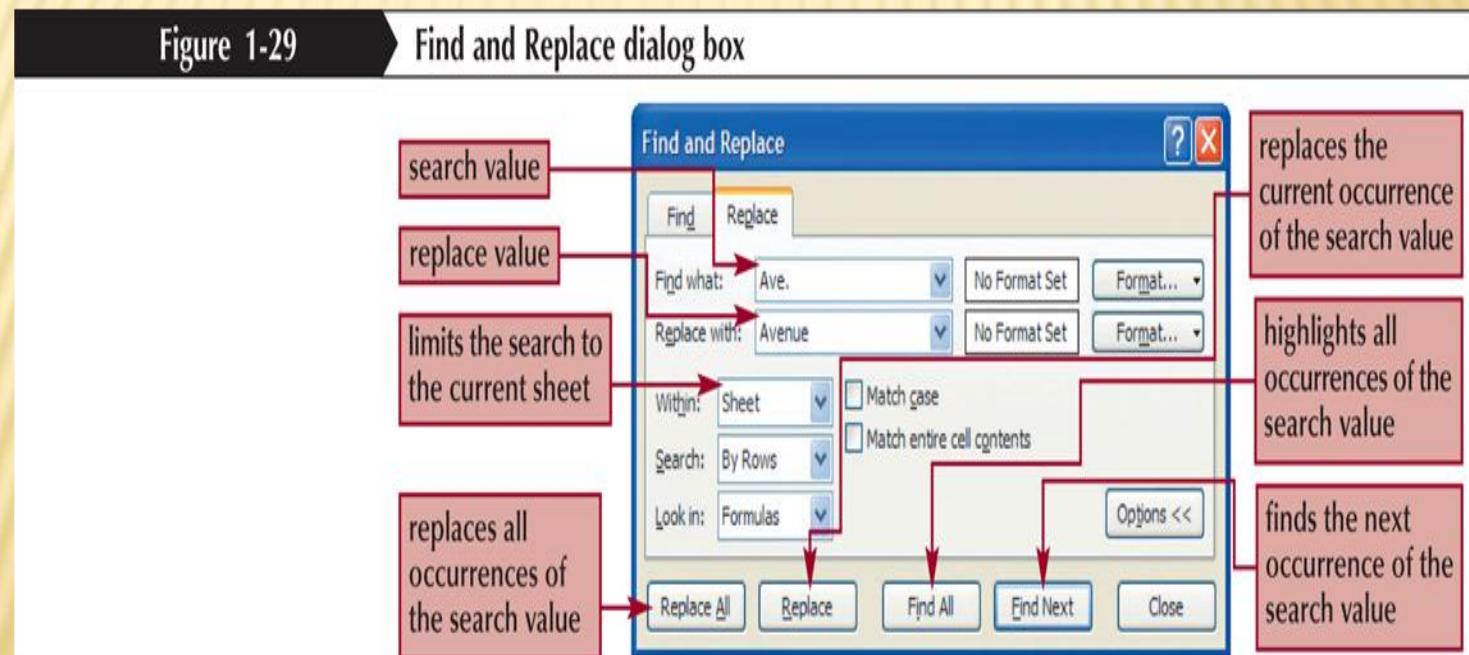
CREATING A COLUMN CHART:

- Select the range.
- Click the Insert tab on the Ribbon.
- In the Charts group, click the Column button and then choose the chart subtype.



USING FIND AND REPLACE:

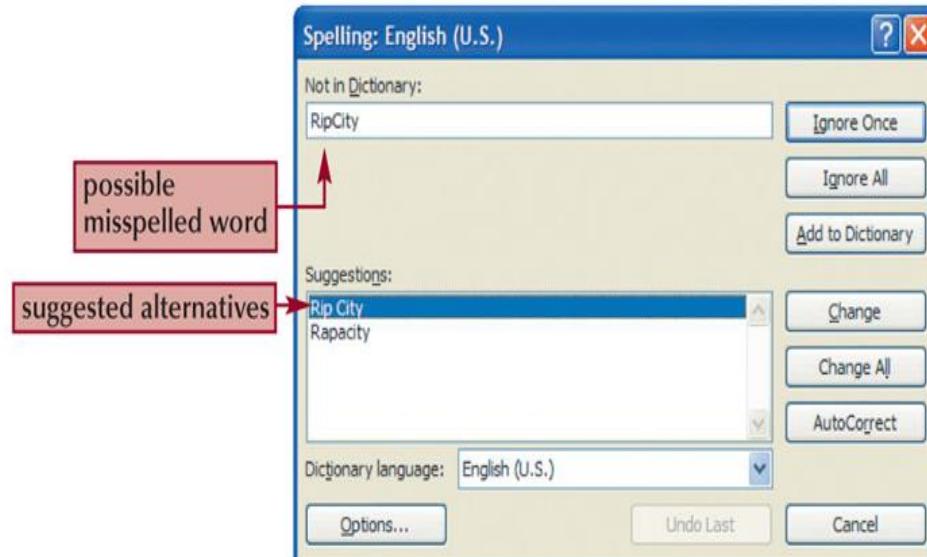
- You can use the Find command to locate numbers and text in the workbook and the Replace command to overwrite them



USING THE SPELLING CHECKER:

- The spelling checker verifies the words in the active worksheet against the program's dictionary.

Figure 1-31 Spelling dialog box



THANKYOU