

Introduction to Microsoft Excel for Windows Using a Budget Example

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I. Introduction

Microsoft Excel is a spreadsheet program easily applied to business problems and reports. This manual is a brief tutorial on basic Excel worksheet techniques. No previous experience using a spreadsheet is needed before continuing; however, it will prove helpful to be familiar with Windows. The practice exercises are demonstrated using Microsoft Excel 2002. The general concepts and procedures are similar for other versions of Excel.

The conventions listed below are used throughout this manual and are intended to help guide you through the instructions and practice exercises:

Convention	Usage	Example
Boldface sentence	General instruction	Start Excel
Preceded by an asterisk	Specific instruction	* Click the OK button
Separated by a back slash (/)	A command from an Excel menu	Choose File/Save
Enclosed within < >	Press the key(s) enclosed	Press <Enter>

II. Starting Microsoft Excel

Microsoft Excel can be started by any of the following methods:

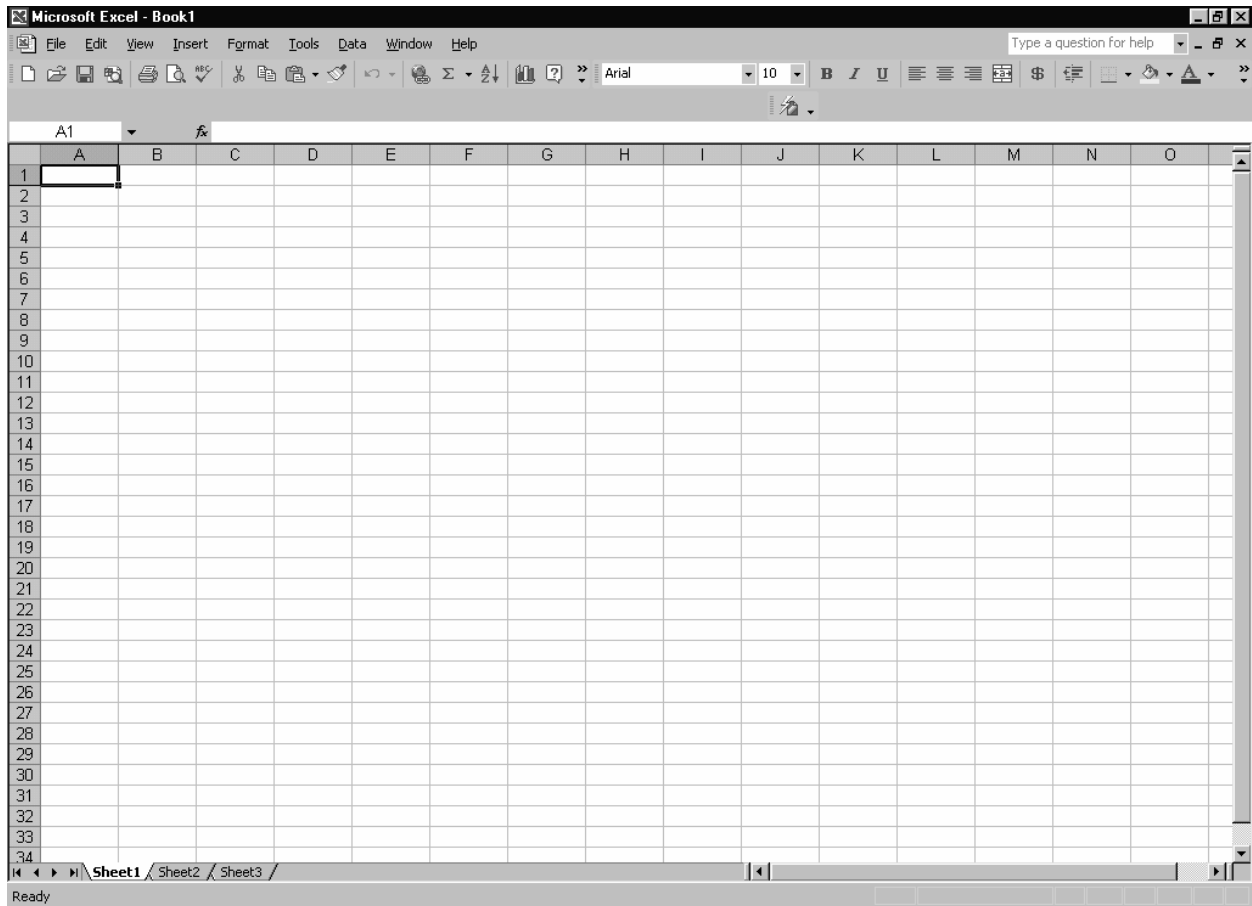
1. Open the Windows Start menu by pointing to and clicking Start button using the mouse. Point to the Programs item in the Start menu. Point to Microsoft Office in the Programs sub menu and click on the Microsoft Excel icon.
2. Click the Microsoft Excel application icon on the Microsoft Office tool bar if the tool bar appears on the desktop.
3. Double click on the Microsoft Excel shortcut icon on the desktop if one has been created.
4. Double click an associated Microsoft Excel Workbook file. Because the Microsoft Excel file is linked to the Microsoft Excel application, Excel starts and displays the workbook file.

Practice Starting Excel

Load Microsoft Excel using one of the first three methods described on the prior page.

Upon loading the application, Sheet1 of the workbook is displayed as shown in figure 1. The blank workbook has the title Book 1 until otherwise specified by the user.

Figure 1.



III. Excel Basics

A. Essential Terms

Worksheet

A worksheet is the primary Excel document for storing and manipulating text and numeric values. A worksheet is comprised of a matrix of columns and rows where information is organized into cells. A worksheet is also called a spreadsheet (or just a sheet) and is a component of a workbook. Several worksheets may be associated with a workbook; however, you need not use more than one worksheet. Tabs labeled Sheet1, Sheet2, and Sheet3 denote individual worksheets. Clicking on a specific tab displays that worksheet.

Workbook	A workbook is a catalog of one or more worksheets that may be linked together in order to share information.
Cell	A cell is the intersection of a column and a row. For example, the intersection of column A and row 1 is cell A1.
Menu Bar	The menu bar is a selected list of key commands used to perform operations.
Tool Bars	Tool bars are the rows (or columns) of icons located beneath the menu bar. The standard tool bar and the formatting tool bar are the two most common tool bars displayed. Clicking the icons on these tool bars is an alternative method of issuing commands and performing special functions.
Formula Bar	The formula bar area is below the formatting tool bar. In the formula bar data is typed, displayed, and edited.
Column Border	The column border is the row of column letters running across the top edge of the worksheet.
Row Border	The row border is the column of row numbers running down the left edge of the worksheet.
Cell Pointer	The cell pointer is the cross that moves over the cells when using the mouse or arrow keys.
Active Cell	The active cell is highlighted by a darker border around it.
Name Box	Name box is the area left of the formula bar displaying the active cell address.
Cell Format	Cell format refers to the manner in which information in a cell is displayed (i.e., text, dollars, commas, decimal positions.)
Select All Box	This box is the blank rectangle at the intersection of the column and row borders. Clicking the select all box results in all cells being selected.
Status Bar	The status bar is located at the bottom of the screen. The left side displays information about an operation or command in progress (i.e. saving or opening a file, copying cells). The right side shows whether the Caps Lock, Scroll Lock and Num Lock are active.
Sheet Tabs	Sheet tabs are located at the bottom of a workbook window. Clicking these displays the corresponding worksheet of the workbook.
Tab Scrolling	Arrowheads are located at the bottom and left of a workbook window. Clicking these scrolls through the sheet tabs.

B. Important Keys

<Enter>	Enters data in the current cell and activate the cell one row below.
<Delete>	Deletes the contents of the current cell or the current character when editing.
<Tab>	Moves right one cell or the next cell in a selected area.
<Shift/Tab>	Moves left one cell or to the previous cell in a selected area.
<Arrows>	Moves one position in the direction pressed.
<Home>	Moves to the beginning of the row.
<End/Right Arrow>	Moves to the last column in a sheet.
<End/Down Arrow>	Moves to the last row in a sheet.
<Ctrl/Home>	Moves to the first cell in the top left of the worksheet.
<Page Up>	Moves up one screen at a time.
<Page Down>	Moves down one screen at a time.
<Backspace>	Deletes the contents of the current cell or previous character in the edit line.

C. Issuing Commands

There are two basic methods you can use to issue commands:

1. Click the menu name or option on the menu bar and select the command in the list.
2. Clicking an icon or button on one of the available tool bars.

In addition, right clicking on any cell will bring up a formatting and editing menu.

IV. Adding Information

A. Activating Cells

Data is entered into a worksheet one cell at a time. Only an active cell accepts data.

1. Using the keyboard, press <Tab>, <Page Down>, <Page Up>, <Home> or any arrow key to activate a different cell.

2. Move the mouse pointer to a cell then click once to activate that cell.
3. Press <F5> or select Go To from the Edit menu and type the cell address you want to activate.

A dark border designates an active cell.

B. Selecting Cells

A cell (or range of cells) must be selected in order to change the cell(s) format, or to duplicate or delete its contents. The following describes various selection techniques:

1. To select a single cell, click the cell once.
2. To select a range of cells, move to the upper left corner of the range to be selected, click and hold the mouse button, drag the highlight to the lower right corner of the range, then release the mouse button.
3. To use the keyboard to select a range, hold <Shift> down and press <Arrow> to select the appropriate cells.
4. To select an entire row or group of rows, click the row number(s) on the row border.
5. To select an entire column or group of columns, click the column letter(s) on the column border.
6. To select the entire worksheet, click the blank box at the intersection of the row border and column border.

When more than one cell is selected, the first cell in the range is highlighted and the border surrounds all cells selected.

C. Entering Data

As you type, data appears in the active cell and in the formula bar of the worksheet. Once you activate a new cell, the data is entered into the original cell and the formula bar displays the contents of the new active cell. Data is entered into a cell after it has been typed upon pressing <Enter>, <Tab> or any arrow key, or by clicking another cell or the check mark on the formula bar.

Practice Entering Data

The following exercises will eventually resemble the worksheet shown in figure 5. Figures 2 through 4 show the intermediate step results. Make the entries as specified in each exercise.

Enter the budget titles in Rows 1 to 5, and columns A to F.

- * Click cell A1 to select the cell. Type *MARKETING BUDGET* in cell A1
- * Press the down arrow to enter the data in cell A1 and advance to cell A2. Type *Firm* in cell A2.
- * Press the down arrow to advance to cell A3. Type *Date* in cell A3.

- * Press <enter> to enter the data in cell A3. Press the down arrow to advance to cell A5.
- * Type *MARKETING ACTIVITIES*.
- * Select cell C2 by clicking on it. Type *Family Business*.
- * Press the down arrow to advance to cell C3. Type *01/01/2003*.
- * Select cell C5 by clicking on it. Type *DESCRIPTION*.
- * Press the right arrow to enter data in cell C5 and advance to D5.
- * Type *PRICE* in cell D5. Press the right arrow twice to advance to cell F5.
- * Type *COST* in cell F5.

Enter marketing activity descriptions and amounts in rows 7 to 28, and columns A and D.

- * Start by selecting cell A7. Enter the following:

A7 *Local Newspaper*
A9 *Radio Stations*
A11 *Brochures*
A13 *Business Cards*
A15 *Samples*
A17 *Direct Mail Postage*
A19 *Signage*
A23 *Marketing Travel*
A25 *Miscellaneous*
A28 *TOTAL*

- * Select cell C7. Enter the following:

C7 *weekly ads*
C8 *8*
C9 *spot broadcasts*
C10 *4*
C11 *pages*
C12 *2000*
C13 *printing*
C14 *500*
C15 *number*
C16 *100*
C17 *letters*
C18 *500*
C19 *banners*
C20 *5*
C21 *road signs*
C22 *6*
C23 *miles*
C24 *750*

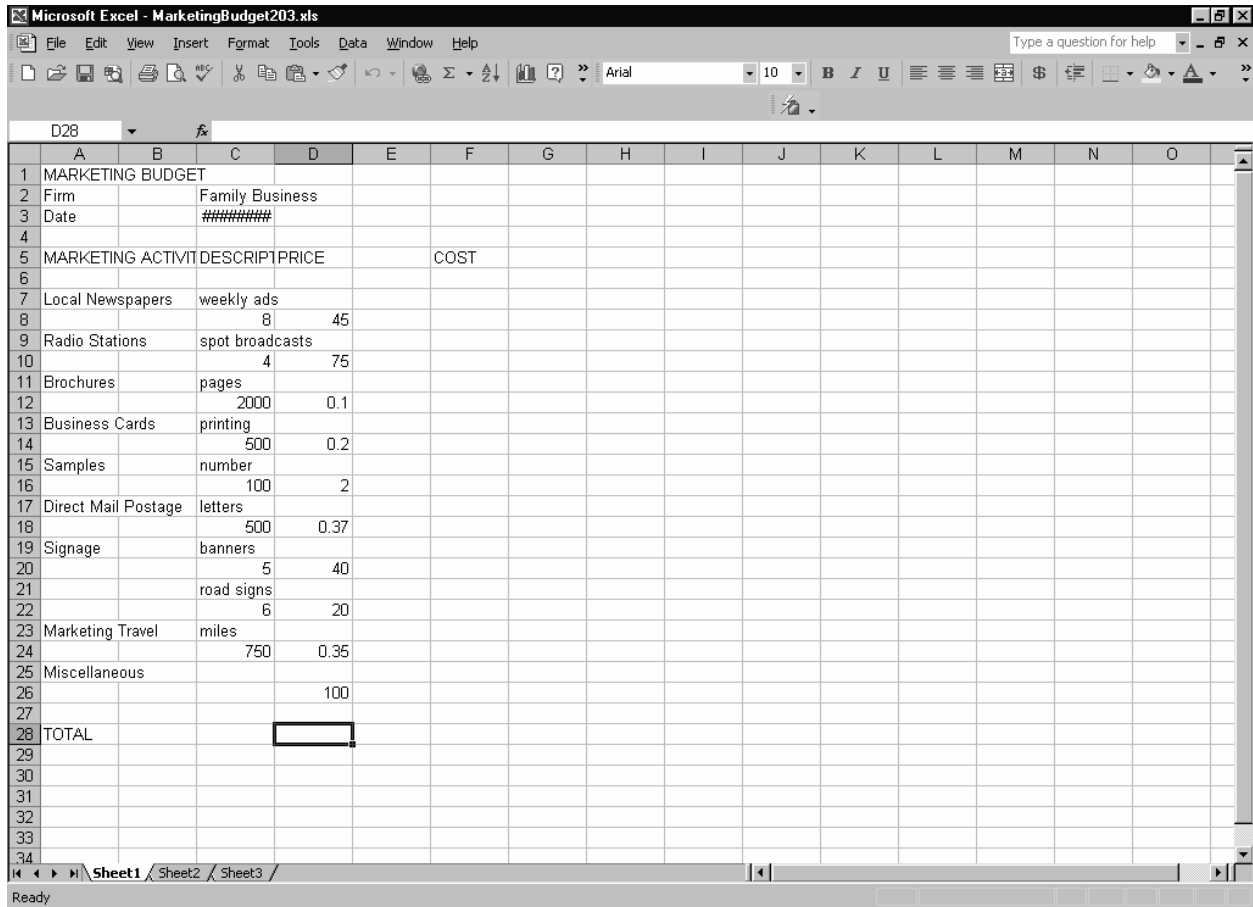
- * Select cell D8. Enter the following:

D8 *45*
D10 *75*
D12 *0.1*
D14 *0.2*

D16 2
 D18 0.37
 D20 40
 D22 20
 D24 0.35
 D26 100

Your worksheet should look similar to figure 2.

Figure 2.



D. Editing Data

The information that is entered in a worksheet may be edited by using one of two techniques:

1. Select the cell that you wish to change and type the new data. The new data replaces the current cell contents.
3. Select the cell that you wish to change, click in the formula bar and use standard editing procedures. After completing your changes, click the check (enter box) on the formula bar. If

you decide not to keep the changes, click the X (cancel box) in the formula bar or press <ESC> to restore the previous contents.

Practice Editing

Add the word *Free* in cell A15.

- * Select cell A15.
- * Click before *Samples* in the Formula Bar.
- * Type *Free* and add a space.
- * Press <Enter>.

Replace *pages* with *printing* in cell C11.

- * Select cell C11.
- * Type *printing*.
- * Press <Enter>.

V. Formatting Techniques

A. Adjusting Column Widths

The default column width is dependent upon the type and size of the font used. Approximately 8 to 10 characters are displayed in a cell when using a standard font. If numeric values exceed the column width, a series of#### fills the cell, indicating the column width needs to be increased. When a text entry exceeds the width of a cell, the remaining text is not shown unless the cell adjacent to the right is empty. There are several different methods you may use to change the column width.

1. To specify a column width, highlight the column or cell(s) to be changed. From the Format menu choose Column then Width. Type the desired column width measurement; click the OK button. (Alternatively, right click on the column letter and designate the column width from the menu.)
2. To have Excel automatically change the column width, highlight the column or cell(s) to be changed. From the Format menu, choose Column then Auto Fit Selection.
3. Point to the column boundary between column border letters (the pointer changes to a double headed arrow pointing left and right), hold the mouse button down and drag left to decrease column width or right to increase column width, release the mouse button once the desired width is achieved. (Double clicking on the column boundary between the border letters will adjust the column width so that the largest entry in the column will be accommodated.)

Practice Adjusting Column Widths

Adjust widths of columns A and B.

- * Click on the column A border.
- * Choose Format/Column.
- * Choose Width, type 20 and click OK button.

- * Right click on column B border.
- * Choose Column Width.
- * Type 5 and click OK button.

Adjust column C to a size that displays the longest entry in that column.

- * Click the column C border.
- * Choose Format/Column.
- * Choose AutoFit Selection.

Adjust the column F width by dragging the column boundary line.

- * Position the mouse pointer on the columns F and G boundary line.
- * Drag the double-header arrow cursor to the right to increase the column size until it equals 10.

B. Adjusting Row Height

Row height adjustments are made much the same as adjustments to column width.

C. Formatting Numbers

Formatting controls the appearance of data in a worksheet. The Cells command under Format on the Excel menu offers a variety of formatting options: Number, Alignment, Font, Border, Pattern and Protection. Each option offers additional choices. For example, the Number option displays a category list with choices such as Currency, Accounting, Percentage and Date. The selected cells are displayed in the chosen format.

Right clicking on a cell (or a range of cells) will bring up a menu with Format Cells as an option. Selecting the Format Cells command offers the same formatting options as described in the above paragraph.

Practice Formatting Numbers

Format cells D8:D26 as currency with 2 decimal positions.

- * Select cells D8:D26 by dragging over the cells.
- * Choose Format/Cells.
- * Click the Number tab. Click “Currency” in the Category list.
- * Choose “2” in the Decimal Places box. Choose “\$” in the Symbol box.
- * Click OK button.

Format cells C8:C24 as number with 0 decimal positions and a comma separating 1000s.

- * Select cells C8:C24 by dragging over the cells.
- * Right click and select Format Cells.
- * Click the Number tab. Click “Number” in the Category list.
- * Choose “0” in the Decimal Places box. Check the Use 1000 Separator (,) box.
- * Click OK button.

Cells may also be formatted using the Formatting tool bar. The icons on the tool bar represent format options.

D. Aligning Text

The Alignment formatting option offers choices for the Horizontal and Vertical placement of data as well as sub options for Orientation and Wrap Text. Excel's default Horizontal alignment is Left for text and Right for numeric data. The default Vertical alignment for both text and numerical data is Bottom. Right and Center alignment are two of the options available that are commonly used to display text horizontally. The Alignment option is found under the Cells command in the Format menu and as icons on the Formatting tool bar.

Practice Aligning Text

Center the selected headings.

- * Select cells A5:F5 by dragging over the cells.
- * Choose Format/Cells.
- * Click the Alignment tab.
- * Click "Center" under Horizontal options.
- * Click OK button.

Indent subcategory descriptions.

- * Select cells A7:A28 by dragging over the cells.
- * Choose Format/Cells.
- * Click the Alignment tab.
- * Click "Left (Indent)" under the Horizontal options.
- * Choose "1" in the Indent box.
- * Click OK button.

E. Bolding and Underlining Text

The Font formatting option allows for modifications in font style, size, size, color, underline options and other effects. Bold and Underline buttons also appear on the Formatting tool bar.

Practice Modifying Text Features

Bold and underline title.

- * Select cell A1.
- * Choose Format/Cells.
- * Click the Font tab.
- * Choose "Bold" under Font style and choose "single" in the Underline box.
- * Click OK button.

Bold subtitles.

- * Select cells A5:F5 by dragging over the cells.
- * Click the Bold icon which appears in the Formatting tool bar.

The worksheet should now look similar to figure 3.

Figure 3.

The screenshot shows a Microsoft Excel spreadsheet titled "MarketingBudget303.xls". The spreadsheet contains the following data:

MARKETING ACTIVITY	DESCRIPTION	PRICE	COST
Local Newspapers	weekly ads	8	\$45.00
Radio Stations	spot broadcasts	4	\$75.00
Brochures	printing	2,000	\$0.10
Business Cards	printing	500	\$0.20
Free Samples	number	100	\$2.00
Direct Mail Postage	letters	500	\$0.37
Signage	banners	5	\$40.00
	road signs	6	\$20.00
Marketing Travel	miles	750	\$0.35
Miscellaneous			\$100.00
TOTAL			

VI. Calculating Results: Creating Formulas

Formulas and functions calculate new values from existing values or from constant numeric data. Functions are built-in formulas supplied by Excel. Formulas begin with an equal sign and are typed from the keyboard. The mathematical operators are an asterisk (*) for multiplication, a slash (/) for division, a plus (+) for addition, and a minus (-) for subtraction.

To ensure greater flexibility, refer to the cell addresses of numeric values used in calculations rather than the actual displayed value. By using cell addresses, new values can be entered into the cell(s) referred to in the formula and the result is automatically recalculated.

Practice with Formulas

Type a formula to compute Local Newspaper weekly ad costs.

- * Select cell F8.
- * Type =C8*D8.
- * Press <Enter>.

The result of the formula is displayed in cell F8.

Instead of typing cell references used in a formula, you can enter them by clicking the cells. Also, you can click the check mark in the formula bar instead of pressing <Enter>.

Type a formula to compute Radio Station spot broadcast costs.

- * Select cell F10.
- * Type =
- * Click on cell C10.
- * Type *
- * Click on cell D10.
- * Click the check mark on the formula bar.

VII. Copying and Moving Data

A. Copy and Paste

Text, formulas and functions may be copied (duplicated) from one cell and pasted to another cell. Copying and pasting text is relatively easy. With formulas and functions, you need to decide if the same computational logic should be applied. The Copy and Paste commands are found under Edit in the menu. They also appear as icons on the Standard tool bar.

Practice Copying

Copy text from A19 to A21.

- * Select cell A19.
- * Choose Edit/Copy.
- * Select cell A21.
- * Choose Edit/Paste.

Copy formula from F10 to F12.

- * Select cell F10.
- * Choose Edit/Copy.
- * Select cell F12.
- * Choose Edit/Paste.

Complete the COST Calculations for specific Marketing Activities.

- * Enter or copy formulas to calculate the costs of Business Cards, Free Samples, Direct Mail Postage, Signage and Marketing Travel.

B. Cut and Paste

The Cut and Paste commands are used to move information around the workbook as well as move information to other workbooks or worksheets. The Cut command removes selected data. The selected data is placed in a temporary location called the Clipboard. The Paste command results in the Clipboard contents being copied to a selected destination. Clipboard contents remain unchanged until the next Cut command is chosen or the PC is turned off. The Cut and Paste commands are found under the Edit menu and as buttons on the Standard tool bar.

Practice with Cut and Paste

Move the data in D26 to F25.

- * Select cell D26
- * Choose Edit/Cut
- * Select cell F25
- * Choose Edit/Paste

The Copy and Paste combination works the same as the Cut and Paste combination except that Copy leaves the information in its original location and places a copy in the selected destination area.

Note: Unlike the Cut and Copy commands, the Delete and Clear commands do not place the removed contents into the Clipboard. If your intention is not to move or duplicate data, then the Delete or Clear commands may be used.

VIII. Calculating Results: Using Built-In Functions

Built-In Functions supplied with the Excel program provide a method to calculate results that would otherwise require long or complex formulas. Functions are grouped into categories such as Statistical, Financial and Most Recently Used. Functions require you to supply the values necessary to perform the calculations: These are referred to as the arguments to the function. The arguments may consist of cell addresses as well as numeric values. Like formulas, functions are also preceded with an equal sign, while arguments are enclosed in parenthesis.

A frequently used function is the SUM function. The SUM function adds up a list of values in the cells you specify as the argument and returns a computed result in the cell that you enter the function. The formula “= A1+A2+A3” is equivalent to the function “=SUM(A1:A3).”

You can enter a function from the keyboard or from the Function command. Choose the Function command from the Insert menu or click the Function button on the Standard Tool bar for a list of available Excel functions. An icon on the Standard tool bar may also represent the Sum function.
Practice with Functions

Insert a function to compute TOTAL COST.

- * Select cell F28.
- * Choose Insert/Function.
- * Click “Most Recently Used” in the Function Category list box.
- * Click “SUM” in the Function Name list box.
- * Click OK button. The Function Wizard box should appear.
- * Type F7:F25 in the Number 1 box.
- * Click OK button.

The worksheet should now look similar to figure 4.

Figure 4.

MARKETING ACTIVITY	DESCRIPTION	PRICE	COST
Local Newspapers	weekly ads	8 \$45.00	\$360.00
Radio Stations	spot broadcasts	4 \$75.00	\$300.00
Brochures	printing	2,000 \$0.10	\$200.00
Business Cards	printing	500 \$0.20	\$100.00
Free Samples	number	100 \$2.00	\$200.00
Direct Mail Postage	letters	500 \$0.37	\$185.00
Signage	banners	5 \$40.00	\$200.00
Signage	road signs	6 \$20.00	\$120.00
Marketing Travel	miles	750 \$0.35	\$262.50
Miscellaneous			\$100.00
TOTAL			\$2,027.50

IX. Inserting and Deleting Rows and Columns

A. Inserting

Rows and columns may be inserted into an existing workbook. Rows are inserted above a selected row. Columns are inserted to the left of a selected column. Both the Rows and Columns commands are found under the Insert menu.

Practice Inserting a Row

Insert a row above row 25.

- * Click Row 25 in the row border.
- * Choose Insert/Rows.

B. Deleting

Rows and columns can be deleted by using the Delete command from the Edit menu. The Row(s) or column(s) must first be selected prior to issuing the Delete command. All data in the selected row(s) or column(s) is permanently removed. The Edit menu also contains the Clear command. The Clear command deletes the contents of selected cell(s) and optionally any formatting attributes that were applied to the cell. As with the Delete command, all selected information is permanently removed once the command is chosen.

Practice Deleting a Column

Delete column B.

- * Click Column B in the column border.
- * Choose Edit/Delete.

Optional work.

- * Add the title *Monthly Expense* in column A, row 31.
- * Calculate the monthly expense in cell E31 by dividing the TOTAL COST by 12.
- * Use the Format/Cells command to add a border to cells A5:E5 and A27:E27
- * Bold entries in row 29.

The final version of the practice worksheet is shown in figure 5.

Figure 5.

MARKETING BUDGET			
Firm	Family Business		
Date	01/10/2003		
MARKETING ACTIVITY	DESCRIPTION	PRICE	COST
Local Newspapers	weekly ads		
		8	\$45.00
			\$360.00
Radio Stations	spot broadcasts		
		4	\$75.00
			\$300.00
Brochures	printing		
		2,000	\$0.10
			\$200.00
Business Cards	printing		
		500	\$0.20
			\$100.00
Free Samples	number		
		100	\$2.00
			\$200.00
Direct Mail Postage	letters		
		500	\$0.37
			\$185.00
Signage	banners		
		5	\$40.00
			\$200.00
Signage	road signs		
		6	\$20.00
			\$120.00
Marketing Travel	miles		
		750	\$0.35
			\$262.50
Miscellaneous			\$100.00
TOTAL			\$2,027.50
MONTHLY EXPENSE			\$188.96

X. Saving, Exiting and Opening

A. Saving a Workbook

In order to retain your work for future reference, the data must be stored on a storage medium such as a disk. A filename must be typed in the Save dialog box the first time you save the workbook. Excel allows for long filenames. One to 255 characters, including spaces and numbers, can be used in a filename. The file extension .xls is automatically supplied to Excel workbook files. Initially the filename for a new workbook is Book#.xls, where # is a number, and the filename is selected in the Save As dialog box. As you type a filename, the selected filename is replaced by the text you type. The Save command is found under the File menu and is represented as a tool on the Standard tool bar.

Remember to Save often. On subsequent saves, workbook changes are saved to the same location and filename as originally specified. All you have to do is invoke the Save command from the File menu. However, to change the name or location of a saved workbook, issue the Save As command to display the Save As dialog box.

Practice Saving

Save the workbook as Balance Sheet on the diskette in the A drive.

- * Choose File/Save or File/Save as.
- * Type *Marketing Budget* over the selected filename.
- * Open the Save in list box by clicking the arrow to the right of the box.
- * Click "3 1/2 Floppy (A:)" from the Save in list box.
- * Click Save button.

B. Exiting Microsoft Excel

The Exit command from the File menu allows you to close Excel. If you have made modification to the workbook and have not saved the changes, a dialog box is displayed prior to closing a workbook, offering you the option to save your file.

Practice Exiting Excel

Exit Excel without saving changes.

- * Choose File/Exit.
- * Click No button.

C. Opening Existing Workbooks

In order to work on a file that has been saved on disk, you must start Excel if it is not started then open the file. More than one file may be opened at a time, thus allowing you to switch between workbook files. One of the following methods may be used to Open a workbook file:

1. Start Excel by clicking the Excel icon on the Office tool bar once. Choose the Open command from the File menu or click the Open tool on the Standard tool bar.
2. Double click a workbook file icon. Because the workbook is associated with the program used to create it, Excel starts automatically and opens that workbook file.

Practice Opening a Workbook

Open the workbook Marketing Budget.

- * Load Microsoft Excel.
- * Choose File/Open.
- * Open the Look in list box by clicking the down arrow right of the box.
- * Click "3 1/2 Floppy (A:)" in the Look in list box.
- * Click *Marketing Budget.xls*.
- * Click Open button.

XI. Printing

A. Print Preview

It is often useful to view the overall appearance of a worksheet with respect to the paper it will be printed on prior to printing a hard copy, a copy on paper. The Print Preview command displays the printout on the screen. The Print Preview command is under the File menu and is also represented by a tool on the Standard tool bar.

The Next and Previous options allow viewing multiple printed pages of a worksheet. Setup offers choices for changing the orientation, displaying grid lines and changing margins. Margin displays dotted lines where the top, bottom, left and right margins are designated, and where the header and footer information areas are located. The Zoom option expands the size of the view so that the contents can be read with greater ease. The Print option is also available from Print Preview so that you may produce a hard copy if you are satisfied with the appearance of the worksheet on the screen.

Practice with Print Preview

Use print preview options.

- * Choose File/Print Preview.
- * Click Zoom button.
- * Click Margins button.
- * Click Close button.

B. Printing the Entire Worksheet

The Print command is used to produce a printout of the worksheet on paper, a hard copy. A printed worksheet will look exactly like the worksheet on the computer screen; the grid lines, row numbers and column letters appear on the printed copy unless otherwise specified. The Print command offers a variety of choices to facilitate changing the appearance of the worksheet.

The Print command is found under the File menu and is represented by a tool on the Standard Tool bar. Be sure you are connected to a printer and that the printer is on-line prior to issuing the Print command.

Note: It is important that you Save the file prior to choosing the Print command in order to preserve the file in the event of any mishaps with the computer and its components.

Practice Printing

Print file.

- * Choose File/Save.
- * Choose File/Print.
- * Click OK button.

C. Printing Selected Areas

A portion of a worksheet may be printed instead of the entire worksheet. The area that you want to print must first be selected before choosing the Print command then the Selections button must be darkened in the Print What section of the Print dialog box.

XII. Additional Information

A. 'What If' Analysis

Microsoft Excel offers a great opportunity to engage in "What If" analysis. New values are entered so that formulas and functions can recalculate new results. Be sure to save the file in its current form prior to making changes, so that you may work with the original at a later time and relinquish the values you used to speculate with.

B. Saving a Backup Copy

A backup copy is a duplicate of your files and may be desirable if you need to retain more than one copy. Generally, if a backup copy is stored on the same disk as the original file, a new name must be given to the backup file. However, the same filename may be used if a different storage location for the file is specified. The Save As command from the File menu gives you the opportunity to specify a different location and/or filename.

C. Formatting the Document

The Page Setup command in the File menu (or in the Print Preview display) allows you to change the format of the printed worksheet. For example, you can change the paper orientation (portrait or landscape), the paper size, and the default header or footer. These options, along with others available in the Page Setup dialog box, allow you to improve the look the printed worksheet.

D. Fonts, Type Style and Size

There may be times when you want to change the font, style or size of text or numbers in order to add emphasis and improve the general appearance of the worksheet. The Font option from the Cells command under the Format menu offers choices to change attributes such as the Font, Size, or Font Style of your data. Font Style refers to the attributes bold, regular and italics. **B**, *I*, and U tools on the Formatting Tool bar represent the bold, italicize and underline options respectively. As with any of the attributes, selected cells take on the attribute once it is chosen. If no cells are selected then the option is applied to data that you type until you shut off the option by clicking the tool or inactivating the attribute through the Format menu.

E. Headers and Footers

Headers and Footers are the areas above and below the top and bottom margins respectively. Information such as titles and page numbers may be placed in a header or footer so that it appears on every printed page. Click the Header/Footer tab in the Page Setup dialog box to enter information into the header or footer areas.

F. Spell Check

The Spell Check utility checks each word in your worksheet with its built-in dictionary. Suggestions may be displayed for you to choose from when an unidentified word is encountered. To invoke the Spell Check utility, choose the Spelling command from the Tools menu or click the Spell Check tool on the Standard Tool bar if it is displayed.

G. Help

On-line help is available on any Microsoft Excel command or topic. Open the Help menu and choose the Search for help on or Index command to retrieve additional information on a command or topic. Another method of using the Help utility is by clicking the Help tool then clicking a command, a tool on a Tool bar, or any other component of the workbook; help about the topic you clicked is displayed. On-line tutorials are also included in the Help menu.

H. Charts

A chart is a visual representation of numerical data that is stored in a worksheet. A chart is an analytical tool that may show growth trends, percentage to a total, comparisons to other components, and/or relationships between data. The objective of representing data with a chart is to show immediate visual impact. Charts may be created on a separate sheet (chart sheet) or they may be stored on the same sheet as the spreadsheet data (embedded). A chart is a dynamic object; it is linked to the worksheet data that it was created from. Also, as values in the worksheet change, the chart reflects that change automatically.

There are 15 different chart types to choose from. Most charts are two-dimensional, a few are three-dimensional. The Column and Pie charts are the most popular:

A column chart utilizes vertical bars to show a quantitative value for each item. Quantitative values are generally labeled on the Y-axis, the vertical axis, and the categories of data are labeled on the X-axis, the horizontal axis. Column charts are useful for showing growth trends and comparisons.

A pie chart shows the percentage of each value to the total of the values. Each value is represented by a slice of pie. Each pie is assigned a unique pattern or color to differentiate the data categories. Pie slices may be optionally labeled.