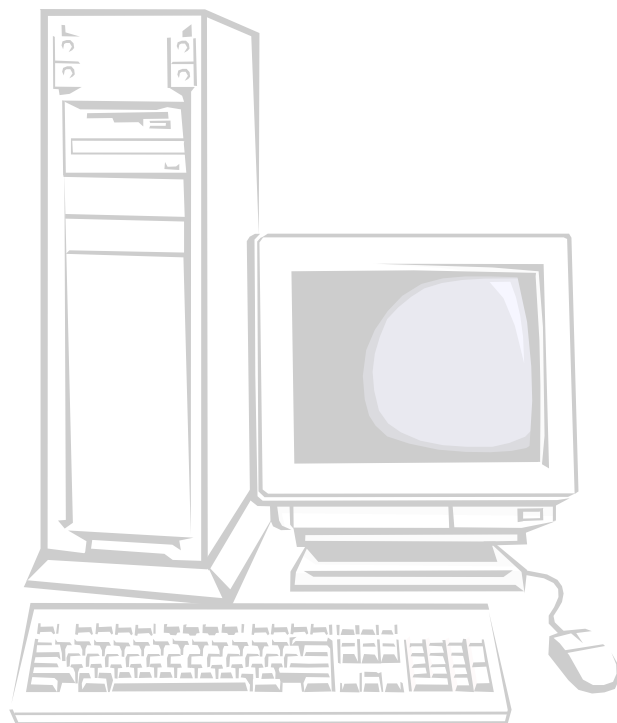


Omaha Public Schools

IMS/User Support



Technology Training
Introduction to *Microsoft[®] Excel[™]*

Excel Overview

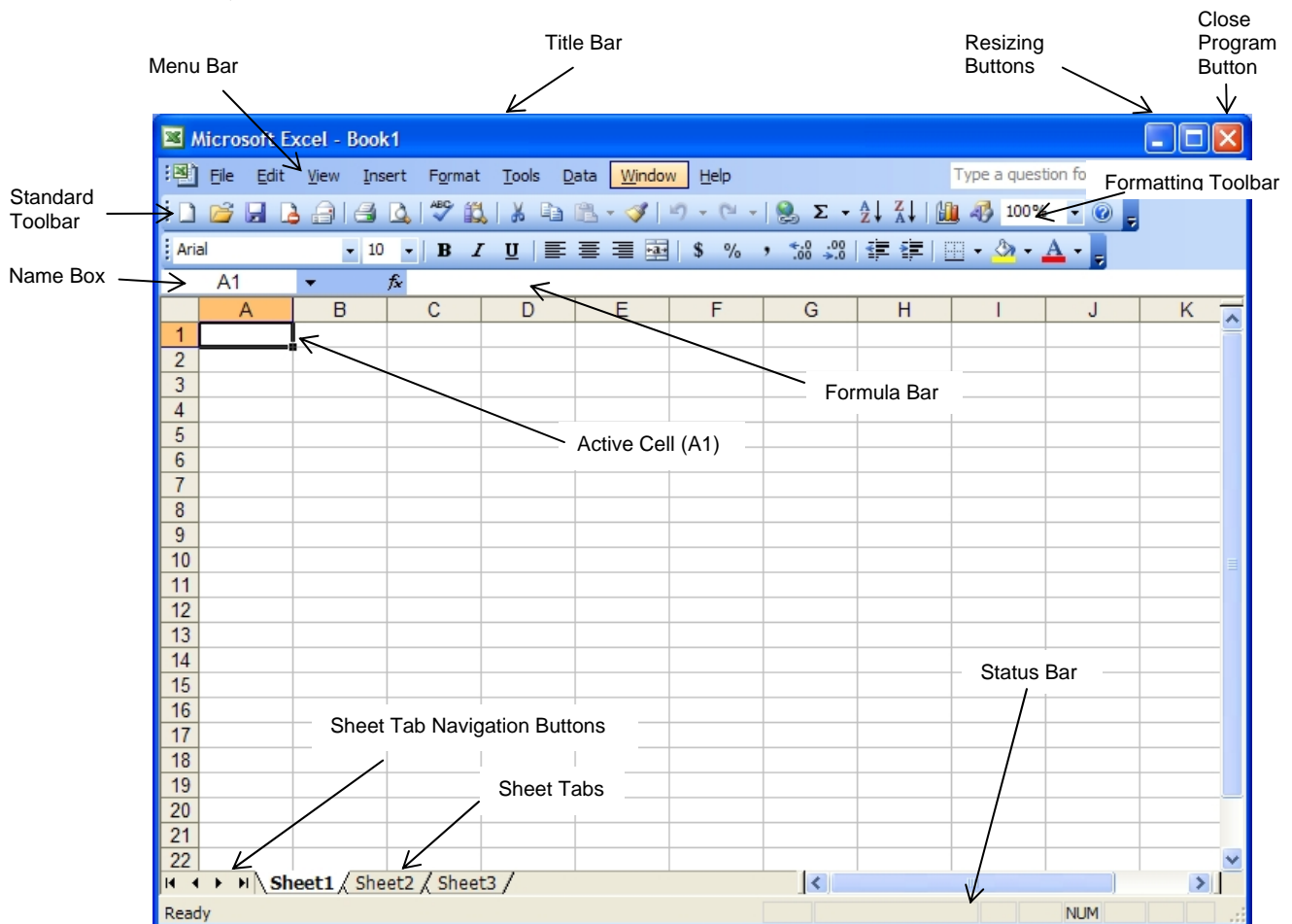
Excel is an *electronic spreadsheet* that performs calculations quickly and accurately. One of the most powerful features of Excel is that users may change data, and then quickly recalculate the result. Excel also has features that enhance the appearance of a spreadsheet and make information more visually appealing and easier to understand.

Starting Excel

To launch Excel from the Windows desktop, click **Start**, select the **Programs** menu, and then select **Excel**. The **Programs** menu displays a list of programs installed on your computer, including Excel. You can also create a shortcut on your desktop to launch Excel without opening the **Start** and **Program** menus.

Identifying the Parts of the Excel Screen

When Excel is started, a screen similar to the one below will appear. This is the *worksheet window*, containing a grid of columns and rows. *Columns* are labeled alphabetically and represented vertically. *Rows* are labeled numerically and represented horizontally. The worksheet window displays only a small part of the entire worksheet, which contains 256 columns and 65,533 rows.



Title Bar

The *title bar* displays the application's name (Microsoft Excel) and the filename of the open *workbook*.

Control Menu Box

The *control menu box* is at the far-left end of a window's title bar and can be used to resize or close the window.

Close/Resizing Buttons

The far-right end of the title bar contains two *resizing* buttons and a *close* button. These buttons allow an open window or the Excel program to be resized or closed.

Menu Bar

The *menu bar* contains menus from which Excel commands are chosen. As with all Windows programs, menu commands are chosen by clicking on them with the mouse or by pressing the [Alt] key and the underlined letter in the menu name. For example, pressing [Alt+F] will open the **F**ile menu.

Standard Toolbar

The *standard toolbar* is located just below the menu bar and contains buttons corresponding to the most frequently used Excel features.

Formatting Toolbar

The formatting toolbar contains buttons for the most common commands used for improving the worksheet's appearance. To choose a button, simply click it with the left mouse button. The face of each button represents its functions. For example, the Print button contains the image of a printer.

Name Box

The *name box* displays the address of the active cell.

Formula Bar

The *formula bar* is the area in which formulas are entered and worksheet data is edited.

Cell

A *cell* is located at the intersection of a column and row. Every cell has its own *cell address*, identified by the coordinates of the intersecting column and row. For example, the address of the cell in the upper-left corner of a worksheet is A1.

Cell Pointer

The *cell pointer* is the dark rectangle surrounding the cell being worked in, also called the *active cell*.

Worksheet Window

The *worksheet window* contains the workspace for the selected workbook.

Sheet Tabs

Workbooks contain three worksheets by default; select a worksheet by clicking on its *sheet tab*.

Sheet Tab Scrolling Buttons

Although the number of worksheets per workbook is three by default, each workbook can contain up to sixteen worksheets. The *sheet tab scrolling buttons* allow the user to scroll through the *sheet tabs* for different worksheets within a workbook.

Status Bar

The *status bar* is located at the bottom of the Excel window. The left side of the status bar provides a brief description of the active command or task in progress. The right side of the status bar shows the status of important keys, such as the [Caps Lock] and [Num Lock] keys.

Navigating in a Worksheet

When working in a worksheet, the *active cell* is always identified by its dark border. The active cell's address will also always appear in the *name box*. When a new worksheet is opened, the active cell is always A1, and any text or numbers typed will appear in that cell. To make another cell active, point to it and click the mouse, or use the keyboard functions to move there.

Keyboard Function	Keys Used
One column right	[→] or [Tab]
One column left	[←] or [Shift+Tab]
One row down	[↓]
One row up	[↑]
One screen down	[Page Down]
One screen up	[Page Up]
Start of document	[Ctrl+Home]
End of document	[Ctrl+End]
End of row	[Ctrl+→]
Start of row	[Ctrl+←]
End of column	[Ctrl+↓]
Start of column	[Ctrl+↑]
Move to the beginning of the row.	HOME
Move to the beginning of the worksheet.	CTRL+HOME
Move to the end of the row.	END
Move to the last cell on the worksheet	CTRL+END

Entering Information in a Cell

To create a worksheet, text, values, and formulas are entered into worksheet cells. After a worksheet is created, it can be saved and printed or e-mailed. Before entering data into a worksheet, there should be a clear purpose and an approximate layout for the worksheet.

Entering Labels

Labels are left-aligned by default and identify data. Labels should be entered first, since they are used to make the worksheet understandable. Labels can contain text and numeric information such as dates, times, or addresses, but labels are not used in calculations.

Entering Values

Values are right-aligned by default and include numbers, formulas, and formulas for calculations. Excel recognizes an entry as a value when it is a number or when it begins with one of the following symbols: +, =, @, #, or \$.


Entering Formulas

Formulas in Excel worksheets use arithmetic operators, and all formulas begin with an equal sign (=). If a value in a cell is changed, any formula containing that cell reference will automatically recalculate using the new value.

Addition	+	Division	/
Subtraction	-	Multiplication	*

Editing a Worksheet

The contents of a cell can easily be changed using one of the following methods:

- To *erase* the contents of a cell, select the cell, and press the **Del** key.
- To *replace* the contents of a cell, select the cell, type the new contents, and press **ENTER**.
- To *edit* the contents of a cell, move the insertion point to the location where characters are to be added or edited.
- To *edit* the contents of a cell, click on the cell to make it active, and then click in the formula bar and position the insertion point for editing.
- To *edit* the contents of a cell, click on the cell to make it active, and then press the **F2** key. Excel changes to the edit mode and moves the insertion point inside the cell.
- To *undo* changes, use the **Undo** or **Redo** buttons  on the **Standard Toolbar**.

Office Assistant

The Office Assistant is an interactive help system that responds to questions and offers suggestions based on a user's work habits. To use the Office Assistant, follow these steps:

- Click on the **Office Assistant** icon on the **Standard Toolbar**. A dialog box will appear, asking "What would you like to do?" Click inside the text box.
- Type a question using keywords. For example, ask "How do I shade?" Press **ENTER** or click on Search after entering a question.
- The Office Assistant will display a list of topics it believes are related to your question.
- Click on a topic to see the full text of that topic.
- To exit the Office Assistant, click on the **Close** button, or click on the **Exit** button in the upper right-hand corner.

Spelling and Grammar

Microsoft programs such as Word, PowerPoint, and Access share the spelling checker in Excel. Therefore, any words added to the dictionary while using those programs will also be available in Excel. To check the spelling and grammar of a worksheet, click on the **Spelling** button on the Standard Toolbar, or select **Tools >Spelling**. Remember that the spelling checker will only verify the spelling of a word; it cannot determine if the word chosen is correct.

Formatting a Worksheet

Excel automatically formats data when it is entered in a cell, but this *default* formatting can be changed, if desired. Individual cells can be manually formatted, and To manually format a cell, select the cell to be formatted, and apply the desired formatting. Use the same method to format a range of cells by clicking on the first cell and dragging to the last cell to be included. Cells or ranges of cells can be formatted before or after data is entered.

Select Font

1. To choose a new font, select a cell or range to be formatted.
2. Click the **Font** box on the **Formatting Toolbar**.
3. Scroll up or down to select and apply a new font.

Select Font Size

1. To change the font size, select a cell or range to be formatted.
2. Click in the **Font Size** box on the **Formatting Toolbar**.
3. Select a new font size.

Select Font Style

1. To change the font style, select a cell or range to be formatted.
2. Click the **Bold**, **Italic**, or **Underline** button on the **Formatting Toolbar**.

Change Cell Alignment

1. Select a cell or range to be formatted.
2. Click the **Align Left**, **Center**, or **Align Right** button on the **Formatting Toolbar**.

Adjust Column Width Using the Mouse

1. Position the cursor on the separator bar at the right of column header of the column to be changed. The cursor will change to a double-headed arrow.
2. Hold the left mouse button down and drag the cursor to change the column width. The column width will appear in a window as the cursor is moved.
3. Release the left mouse button when the column width is correct.

Format Values

1. Select the cell or range of cells to be formatted.
2. Select **Format > Cells**, and a dialog box will appear.
3. Select a category under the **Number** tab, such as **currency**.
4. Enter the desired number of decimal places, and click **OK**.

Insert Rows

1. Position the cursor where the new row is to be inserted.
2. Select **Insert > Rows**, and the worksheet will shift *down* from the new row.

Delete Rows

1. Select the row(s) to be deleted by clicking on the row number.
2. Select **Edit > Delete**, and the worksheet up to replace the deleted row.

Insert Columns

1. Position the cursor where the new column is to be inserted.
2. Select **Insert > Columns**, and the worksheet will shift to the *right* of the insertion point.

Delete Columns

1. Select the column(s) to be deleted by clicking on the column header.
2. Select **Edit > Delete**, and the worksheet will move *left* to replace the deleted column(s).

Using Shortcut Menus

Excel includes *shortcut menus* that combine commands from various menus for convenience. The commands available depend on the location of the mouse pointer. To access a shortcut menu, right-click the mouse anywhere on a worksheet. All commands available through a shortcut menu are also available on the toolbars or the menu bar, but it is often more convenient to use the shortcut menus.

Cut, Copy, and Paste

Select a cell or range of cells to cut or copy and paste. Right-click the mouse to open the shortcut menu, and then select **Cut** or **Copy**. Move the mouse pointer to the cell location where you want to paste the selected cell or range of cells. Right-click the mouse to open the shortcut menu, and then select **Paste**. If you **Cut** the original cell or range, it will disappear from its original location and appear in the new location. If you chose to **Copy** the original cell or range, it will remain in its original location and it will also appear in the new location.

Clear or Delete Cells, Rows, or Columns

When cells are *deleted*, Excel removes them from the worksheet and shifts the surrounding cells to fill the space. When cells are *cleared*, their contents (formulas and data), formats, and comments are removed, but the blank cells remain. To *clear* the contents of a cell or cells:

1. Select the cells, rows, or columns to clear.
2. Right-click the mouse to open the shortcut menu, and select **Clear Contents**.

Note: If you click a cell and press **Delete** or **Backspace**, the cell contents are removed, but not any comments or formatting. If you *clear* a cell, the contents, comments, and formatting are all removed.

Insert Comment

To insert a comment to a cell:

1. Click the cell in which to add the comment.
2. Right-click the mouse to open the shortcut menu, and select **Insert Comment**.
3. Type the comment text in the box.
4. When the text is typed, click outside the comment box.

Note: When you sort items on a worksheet, the comments move to new positions with the items in the sorted rows or columns.

Format Cells

Cell formatting options (for both numbers and text) are available through the shortcut menu.

1. Select the cell or range to be formatted.
2. Right-click the mouse to open the shortcut menu, and select **Format Cells**.
3. Select the tab for the desired formatting option.

Introduction to Microsoft Excel

LAB EXERCISE #1

PART 1:

1. Create a worksheet by entering the following labels:

	A	B	C	D
1	Item	Number	Price	Total
2				
3	Disks			
4	Labels			
5	Paper			
6	Pens			

2. Save the worksheet as **Supplies**.

PART 2:

1. Enter the following values:

	A	B	C	D
1	Item	Number	Price	Total
2				
3	Disks	10	1.38	
4	Labels	25	0.25	
5	Paper	30	5.86	
6	Pens	50	1.29	

2. Save the worksheet.

PART 3:

1. Calculate the TOTAL column (Hint: Number x Price = Total).

	A	B	C	D
1	Item	Number	Price	Total
2				
3	Disks	10	1.38	13.8
4	Labels	25	0.25	6.25
5	Paper	30	5.86	175.8
6	Pens	50	1.29	64.5

2. Save the worksheet.

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LAB EXERCISE #2

PART 1:

1. Create a worksheet by entering the following labels and values.

	A	B	C	D
1	Oak Valley Homeowner's Association			
2	Membership Dues, 2008			
3				
4	Owner	Amt. Due	Amt. Paid	Bal. Due
5	Smith	85	40	
6	Johnson	95	50	
7	Brown	75	35	
8	Jones	105	55	
9	Ramirez	90	45	

2. Save the worksheet as **OVHA**.

PART 2:

1. Calculate the **BALANCE DUE** column (Hint: Amt. Due - Amt. Paid = Bal. Due).

	A	B	C	D
1	Oak Valley Homeowner's Association			
2	Membership Dues, 2008			
3				
4	Owner	Amt. Due	Amt. Paid	Bal. Due
5	Smith	85	40	45
6	Johnson	95	50	45
7	Brown	75	35	40
8	Jones	105	55	50
9	Ramirez	90	45	45

2. Save the worksheet.

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LAB EXERCISE #3

PART 1:

1. Create a worksheet by entering the following labels and values:

	A	B	C	D	E	F
1			Quarterly Sales Report			
2						
3			January	February	March	Total
4			Sales	Sales	Sales	Sales
5						
6	Store 1		2500	2700	2200	
7	Store 2		4500	5200	3900	
8	Store 3		5200	4500	4900	
9	Store 4		1200	1700	2500	
10						
11	Monthly Totals					

2. Save the worksheet as **QSR**.

PART 2:

1. Create formulas for the following calculations:
 - Total sales for each store for all three months.
 - Total sales for each month.
2. Change the title **Quarterly Sales Report** in Row 1 to:
 - Font Name: Times New Roman
 - Font Size: 14 Point
 - Font Style: **Bold**
3. Right-align the monthly and total sales headings and change them to **bold**.
4. Underline Row 4.
5. **Bold** the Monthly Totals title in Row 11.
6. Change the sales totals to **currency** format with no decimal places.
7. Save the worksheet.

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LAB EXERCISE #4

PART 1:

1. Open the file **Recreation.xls**
2. Create and enter the formulas for the following calculations:
 - **Cost of goods** 60% of Sales
 - **Gross Profit** Sales - Cost of Goods = Gross Profit
 - **Total Expenses** Total all expenses
 - **Net Income** Gross Profit - Total Expenses = Net Income
 - **Total for Each Item** Total for all three months
3. Format the worksheet for **currency**, with zero decimal places.
4. Save the document as **Recreation 2**.

	A	B	C	D	E	F
1			RECREATION STORE SALES ANALYSIS			
2			STORE 1			
3						
4			May	June	July	Total
5	Sales		\$18,000	\$15,000	\$12,000	\$45,000
6	Cost of Goods		\$10,800	\$9,000	\$7,200	\$27,000
7	Gross Profit		\$7,200	\$6,000	\$4,800	\$18,000
8						
9	Expenses					
10	Overhead		\$2,880	\$2,250	\$1,680	\$6,810
11	Repairs		\$540	\$750	\$480	\$1,770
12	Advertising		\$720	\$300	\$0	\$1,020
13	Total Expenses		\$4,140	\$3,300	\$2,160	\$9,600
14						
15	Net Income		\$3,060	\$2,700	\$2,640	\$8,400