Lesson 1: Entering Text and Numbers

The Microsoft Excel Window

This tutorial teaches Microsoft Excel basics. Although knowledge of how to navigate in a Windows environment is helpful, this tutorial was created for the computer novice. To begin, open Microsoft Excel. Then, if necessary, click the   in the upper right corner of the task pane to close the task pane.

The screen shown here will appear.

The Title Bar

This lesson will familiarize you with the Microsoft Excel screen. You will start with the Title bar, which 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.

The Menu Bar

The Menu bar is directly below the Title bar. The menu begins with the word File and continues with Edit, View, Insert, Format, Tools, Data, Window, and Help. You use a menu to give instructions to the software. Point with your mouse to a menu option and click the left mouse button. A drop-down menu opens. You can now use the left and right arrow keys on your keyboard to move left and right across the Menu bar. You can use the up and down arrow keys to move up and down the drop-down menu. To choose an option, highlight the item on the drop-down menu and press Enter. An ellipse after a menu item signifies additional options; if you choose that option, a dialog box opens.

Do the following exercise, which demonstrates using the Microsoft Excel menu bar.

1. Point to the word *File*, which is located on the Menu bar.
2. Click your left mouse button.
3. Press the right arrow key until Help is highlighted.
4. Press the left arrow key until Format is highlighted.
5. Press the down arrow key until Style is highlighted. Press the up arrow key until Cells is highlighted.
6. Press Enter to choose the *Cells* menu option.
7. Point to Cancel and click the left mouse button to close the dialog box.

When using Microsoft Excel, you can set an option to tell Microsoft Excel to always show full menus or to show only the most frequently and recently used options. All the lessons in this tutorial assume you have your menus set to Always Show Full Menus. To set your menu to display full menus:

1. Point to the word Tools, which is located on the menu bar.
2. Click your left mouse button.
3. Press the down arrow until customize is highlighted.
4. Press Enter.
5. Choose the Options Tab by clicking on it.
6. If Always Show Full Menus does not have a check mark in it, click in the Always Show Full Menus box.
7. Click Close to close the dialog box.

Toolbars

The Standard Toolbar

The Formatting Toolbar

Toolbars provide shortcuts to menu commands. Toolbars are generally located just below the Menu bar. Before proceeding with this lesson, make sure the toolbars you will use -- Standard and Formatting -- are available. Follow the steps outlined here:

1. Point to *View*, which is located on the Menu bar.
2. Click the left mouse button.
3. Press the down arrow key until Toolbars is highlighted.
4. Press the right arrow key.
5. Both Standard and Formatting should have a check mark next to them. If both have a check mark next to them, press Esc two times to close the menu. If either does not have a check mark, press the down arrow key until Customize is highlighted.
6. Press Enter. The Customize dialog box opens.
7. Choose the Toolbars tab.
8. Point to the box or boxes next to the unchecked word or words, Standard and/or Formatting, and click the left mouse button. A check mark should appear. **Note:** You turn the check mark on and off by clicking the left mouse button.
9. Point to Close and click the left mouse button to close the dialog box.

Worksheets

Microsoft Excel consists of worksheets. Each worksheet contains columns and rows. The columns are lettered A to IV; the rows are numbered 1 to 65536. The combination of a column coordinate and a row coordinate make up a cell address. For example, the cell located in the upper left corner of the worksheet is cell A1, meaning column A, row 1. Cell E10 is located under column E on row 10. You enter your data into the cells on the worksheet.

The Formula Bar

Formula Bar

If the Formula bar is turned on, the cell address displays in the Name box on the left side of the Formula bar. Cell entries display on the right side of the Formula bar. Before proceeding, make sure the Formula bar is turned on.

1. Point to View, which is located on the Menu bar.
2. Click the left mouse button. A drop-down menu opens. On the drop-down menu, if Formula Bar has a check mark next to it, the Formula bar is turned on. Press the Esc key to close the drop-down menu.
3. If Formula Bar does not have a check mark next to it, press the down arrow key until Formula Bar is highlighted; then press Enter. The Formula bar should now appear below the toolbars.
4. Note that the current cell address displays on the left side of the Formula bar.

The Status Bar

Status Bar

If the Status bar is turned on, it appears at the very bottom of the screen. Before proceeding, make sure the Status bar is turned on.

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

Notice the word "Ready" on the Status bar at the lower left side of the screen. The word "Ready" tells you that Excel is in the Ready mode and awaiting your next command. Other indicators appear on the Status bar in the lower right corner of the screen. Here are some examples:

The Num Lock key is a toggle key. Pressing it turns the numeric keypad on and off. You can use the numeric keypad to enter numbers as if you were using a calculator. The letters "NUM" on the Status bar in the lower right corner of the screen indicate that the numeric keypad is on.

• Press the Num Lock key several times and note how the indicator located on the Status bar changes.

The Caps Lock key is also a toggle key. Pressing it turns the caps function on and off. When the caps function is on, your entry appears in capital letters.

• Press the Cap Lock key several times and note how the indicator located on the Status bar changes.

Other functions that appear on the Status bar are Scroll Lock and End. Scroll Lock and End are also toggle keys. Pressing the key toggles the function between on and off. Scroll Lock

causes the movement keys to move the window without moving the cell pointer. End lets you jump around the screen. We will discuss both of these later in more detail.

Make sure the Scroll Lock and End indicators are off and complete the following exercises.

The Down Arrow Key

You can use the down arrow key to move downward one cell at a time.

1. Press the down arrow key several times.
2. Note that the cursor moves downward one cell at a time.

The Up Arrow Key

You can use the Up Arrow key to move upward one cell at a time.

1. Press the up arrow key several times.
2. Note that the cursor moves upward one cell at a time.

The Tab Key

You can use the Tab key to move across the page to the right, one cell at a time.

1. Move to cell A1.
2. Press the Tab key several times.
3. Note that the cursor moves to the right one cell at a time.

The Shift+Tab Keys

You can hold down the Shift key and then press the Tab key to move to the left, one cell at a time.

1. Hold down the Shift-key and then press Tab.
2. Note that the cursor moves to the left one cell at a time.

The Right and Left Arrow Keys

You can use the right and left arrow keys to move right or left one cell at a time.

1. Press the right arrow key several times.
2. Note that the cursor moves to the right.
3. Press the left arrow key several times.
4. Note that the cursor moves to the left.

Page Up and Page Down

The Page Up and Page Down keys move the cursor up and down one page at a time.

1. Press the Page Down key.
2. Note that the cursor moves down one page.

3. Press the Page Up key.
4. Note that the cursor moves up one page.

The End Key

The Status Bar

The End key, used in conjunction with the arrow keys, causes the cursor to move to the far end of the spreadsheet in the direction of the arrow.

1. Press the End key.
2. Note that "END" appears on the Status bar in the lower right corner of the screen.
3. Press the right arrow key.
4. Note that the cursor moves to the farthest right area of the screen.
5. Press the END key again.
6. Press the down arrow key. Note that the cursor moves to the bottom of the screen.
7. Press the End key again.
8. Press the left arrow key. Note that the cursor moves to the farthest left area of the screen.
9. Press the End key again.
10. Press the up arrow key. Note that the cursor moves to the top of the screen.

Note: If you have entered data into the worksheet, the End key moves you to the end of the data area.

The Home Key

The Home key, used in conjunction with the End key, moves you to cell A1 -- or to the beginning of the data area if you have entered data.

1. Move the cursor to column J.
2. Stay in column J and move the cursor to row 20.
3. Press the End key.
4. Press Home.
5. You should now be in cell A1.

Moving Quickly Around the Worksheet

The following are shortcuts for moving quickly from one cell to a cell in a different part of the worksheet.

Go to -- F5

The F5 function key is the "Go To" key. If you press the F5 key while in the Ready mode, you are prompted for the cell to which you wish to go. Enter the cell address, and the cursor jumps to that cell.

1. Press F5. The Go To dialog box opens.
2. Type **J3**.

3. Press Enter. The cursor should move to cell J3.

Go to -- Ctrl-G

You can also use Ctrl-G to go to a specific cell.

1. Hold down the Ctrl key while you press "g" (Ctrl-g). The Go To dialog box opens.
2. Type **C4**.
3. Press Enter. You should now be in cell C4.

Name Box

You can also use the Name box to go to a specific cell.

1. Type **B10** in the Name box
2. Press Enter. Excel moves to cell D10.

Selecting Cells

If you wish to perform a function on a group of cells, you must first select those cells by highlighting them. To highlight cells A1 to E1:

1. Place the cursor in cell A1.
2. Press the F8 key. This anchors the cursor.
3. Note that "EXT" appears on the Status bar in the lower right corner of the screen. You are in the Extend mode.
4. Click in cell E7. Cells A1 to E7 should now be highlighted.
5. Press Esc and click anywhere on the worksheet to clear the highlighting.

Alternative Method: Selecting Cells by Dragging

You can also highlight an area by holding down the left mouse button and dragging the mouse over the area. In addition, you can select noncontiguous areas of the worksheet by doing the following:

1. Place the cursor in cell A1.
2. Hold down the Ctrl key. Do not release it until you are told. Holding down the Ctrl key enables you to select noncontiguous areas of the worksheet.
3. Press the left mouse button.
4. While holding down the left mouse button, use the mouse to move from cell A1 to E7.
5. Continue to hold down the Ctrl key, but release the left mouse button.
6. Using the mouse, place the cursor in cell G8.
7. Press the left mouse button.
8. While holding down the left mouse button, move to cell I17. Release the left mouse button.
9. Release the Ctrl key. Cells A1 to E7 and cells G8 to I17 are highlighted.
10. Press Esc and click anywhere on the worksheet to remove the highlighting.

Entering Data

In this lesson, you are going to learn how to enter data into your worksheet. First, you place the cursor in the cell in which you would like to enter data. Then you type the data and press Enter.

1. Place the cursor in cell A1.
2. Type **John Jordan**.
3. The Backspace key erases one character at a time. Erase "Jordan" by pressing the backspace key until Jordan is erased.
4. Press Enter. The name "John" should appear in cell A1.

Editing a Cell

After you enter data into a cell, you can edit it by pressing F2 while you are in the cell you wish to edit.

1. Move the cursor to cell A1.
2. Press F2.
3. Change "John" to "Jones."
4. Use the backspace key to delete the "n" and the "h."
5. Type **nes**.
6. Press Enter.

Alternate Method: Editing a Cell by Using the Formula Bar

You can also edit the cell by using the Formula bar. You can change "Jones" to "Joker" as follows:

1. Move the cursor to cell A1.

2. Click in the formula area of the Formula bar.

3. Use the backspace key to erase the "s," "e," and "n."
4. Type **ker**.
5. Press Enter.

Alternate Method: Editing a Cell by Double-Clicking in the Cell

You can change "Joker" to "Johnson" as follows:

1. Move the cursor to cell A1.
2. Double-click in cell A1.
3. Press the End key. Your cursor is now at the end of your text.
4. Use the backspace to erase "r," "e," and "k."
5. Type **hnson**.
6. Press Enter.

Changing a Cell Entry

Typing in a cell while you are in the Ready mode replaces the old cell entry with the new information you type.

1. Move the cursor to cell A1.
2. Type **Cathy**.
3. Press Enter. The name "Cathy" should replace "Johnson."

Wrapping Text

When you enter text that is too long to fit in a cell into a cell, it overlaps the next cell. If you do not want it to overlap the next cell you can wrap the text.

1. Move to cell A2.
2. Type **Text too long to fit**.
3. Press Enter.
4. Return to cell A2.
5. Choose *Format > Cells* from the menu.
6. Choose the Alignment tab.
7. Click Wrap Text.
8. Click OK. The text wraps.

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 A2.
2. Press the Delete key.

Entering Numbers as Labels or Values

In Microsoft Excel, you can enter numbers as labels or as values. Labels are alphabetic, alphanumeric, or numeric text on which you do not perform mathematical calculations. Values are numeric text on which you perform mathematical calculations. If you have a numeric entry, such as an employee number, on which you do not perform mathematical calculations, enter it as a label by typing a single quotation mark first.

Enter a number:

1. Move the cursor to cell B1.
2. Type **100**.
3. Press Enter.

The number 100 appears in cell B1 as a numeric value. You can perform mathematical calculations using this cell entry. Note that by default the number is right-aligned.

Enter a value:

1. Move the cursor to cell C1.
2. Type **'100**.
3. Press Enter.

The number 100 appears in cell C1 as a label. Note that by default the cell entry is left-aligned and a green triangle appears in the upper left corner of the cell.

Smart Tags

When you make an entry that Microsoft Excel believes you may want to change, a [smart tag](#) appears. Smart tags give you the opportunity to make changes easily. Cells with smart tag in them appear with a green triangle in the upper left corner. When you place your cursor in the cell, the Trace Error icon appears. Click the Trace Error icon and options appear. When you made your entry in cell C1 in the previous section, a smart tag should have appeared.

1. Move to cell C1.
2. Click the Trace Error icon. An options list appears. You can convert the label to a number, obtain help, ignore the error etc.

Saving a File

This is the end of Lesson1. To save your file:

1. Choose *File > Save* from the menu.
2. Go to the directory in which you want to save your file.
3. Type **lesson1** in the File Name field.
4. Click Save.

Closing Microsoft Excel

Close Microsoft Excel.

1. Choose *File > Close* from the menu.

Lesson 2: Formatting Text and Performing Mathematical Calculations

In this lesson, you are going to learn how to format text and perform basic mathematical calculations. To start, open a blank [Microsoft Excel](#) workbook.

Choosing a Default Font

Microsoft Excel enables you to choose a default font. The default font is the style of typeface that Excel will use unless you specify a different style. For the exercises in this lesson, you want your font to be set to Arial, Regular, and Size 10. To set your font to Arial, Regular, and Size 10:

1. Choose *Format > Cells* from the menu.
2. Choose the Font tab.
3. In the Font box, choose Arial.
4. In the Font Style box, choose Regular.
5. In the Size box, choose 10.
6. If there is no check mark in the Normal Font box, click to place a check mark there. Your selections are now the default.
7. Click OK.

Adjusting the Standard Column Width

When you open Microsoft Excel, the width of each cell is set to a default width. This width is called the standard column width. You need to change the standard column width to complete your exercises. To make the change, follow these steps:

1. Choose *Format > Column > Standard Width* from the menu. The Standard Width dialog box opens.
2. Type **25** in the Standard Column Width field. Click OK. The width of every cell on the worksheet should now be set to 25.
3. Move to cell A1.
4. Type **Cathy**.
5. Press Enter.

Cell Alignment

The name "Cathy" is aligned with the left side of the cell. You can change the cell alignment.

Centering by Using the Menu

To center the name Cathy, follow these steps:

1. Move the cursor to cell A1.

2. Choose *Format > Cells* from the menu. The Format Cells dialog box opens.
3. Choose the Alignment tab.
4. Click to open the drop-down box associated with the Horizontal field. After the drop-down box is opened, click Center.
5. Click OK to close the dialog box. The name "Cathy" is centered.

Right-Aligning by Using the Menu

To right-align the name "Cathy," follow these steps:

1. Move the cursor to cell A1.
2. Choose *Format > Cells* from the menu. The Format Cells dialog box opens.
3. Choose the Alignment tab.
4. Click to open the drop-down box associated with the Horizontal field. After the drop-down box opens, click Right (Indent).
5. Click OK to close the dialog box. The name "Cathy" is right-aligned.

Left-Aligning by Using the Menu

To left-align the name "Cathy," follow these steps:

1. Move the cursor to cell A1.
2. Choose *Format > Cells* from the menu. The Format Cells dialog box opens.
3. Choose the Alignment tab.
4. Click to open the drop-down box associated with the Horizontal field. After the drop-down box opens, click Left (Indent).
5. Click OK to close the dialog box. The name "Cathy" is left-aligned.

Alternate Method: Alignment by Using the Formatting Toolbar

Using the Formatting toolbar, you can quickly perform tasks. You can use the Formatting toolbar to change alignment.

Centering by Using the Toolbar

To center the name "Cathy," follow these steps:

1. Move the cursor to cell A1.
2. Click the Center icon, which is located on the Formatting toolbar.

The red circle designates the Align Center icon.

Right-Aligning by Using the Toolbar

You can right-align the name "Cathy" by following these steps:

1. Move the cursor to cell A1.
2. Click the Align Right icon, which is located on the Formatting toolbar.

The red circle designates the Align Right icon.

Left-Aligning by Using the Toolbar

You can left-align the name "Cathy" by following these steps:

1. Move the cursor to cell A1.
2. Click the Align Left icon, which is located on the Formatting toolbar.

The red circle designates the Align Left icon.

Adding Bold, Underline, and Italic

You can bold, underline, or italicize text in Microsoft Excel. You can also combine these features -- in other words, you can bold, underline, *and* italicize a single piece of text.

In the exercises that follow, you will learn three different methods for bolding, italicizing, or underlining text in Microsoft Excel. You will learn to bold, italicize, and underline by using the menu, the icons, and the shortcut keys.

Adding Bold by Using the Menu

1. Type **Bold** in cell A2.
2. Click the check mark located on the Formula bar. Clicking on the check mark is similar to pressing Enter.

3. Choose *Format > Cells* from the menu. The Format Cells dialog box opens.
4. Choose the Font tab.

5. Click Bold in the Font Style box.
6. Click OK. The word "Bold" should now be bolded.

Adding Italic by Using the Menu

1. Type **Italic** in cell B2.

2. Click the check mark located on the Formula bar. Clicking on the check mark is similar to pressing Enter.
3. Choose *Format > Cells* from the menu. The Format Cells dialog box opens.
4. Click Italic in the Font style box.
5. Click OK. The word "Italic" is italicized.

Adding Underline by Using the Menu

Microsoft Excel provides several types on underlines. The exercise that follows illustrates some of them.

Single Underline

1. Type **Underline** in cell C2.
2. Click the check mark located on the Formula bar. Clicking on the check mark is similar to pressing Enter.
3. Choose *Format > Cells* from the menu. The Format Cells dialog box opens.
4. Click to open the drop-down menu associated with the Underline box.
5. Click Single.
6. Click OK. The cell entry now has a single underline.

Double Underline

1. Type **Underline** in cell D2.
2. Click the check mark located on the Formula bar.
3. Choose *Format > Cells* from the menu. The Format Cells dialog box opens.
4. Click to open the drop-down menu associated with the Underline field.
5. Click Double.
6. Click OK. The cell entry now has a double underline.

Single Accounting

1. Type **Underline** in cell E2.
2. Click the check mark located on the Formula bar.
3. Choose *Format > Cells* from the menu. The Format Cells dialog box will open.
4. Click to open the drop-down menu associated with the Underline field.
5. Click Single Accounting.
6. Click OK. The cell entry now has a single accounting underline.

Double Accounting

1. Type **Underline** in cell F2.
2. Click the check mark located on the Formula bar.
3. Choose *Format > Cells* from the menu. The Format Cells dialog box will open.
4. Click to open the drop-down menu associated with the Underline field.
5. Click Double Accounting.
6. Click OK. The cell entry now has a double accounting underline.

Adding Bold, Underline, and Italic by Using the Menu

1. Move the cursor to cell G3.
2. Type **All three**.
3. Click the check mark located on the Formula bar.
4. Choose *Format > Cells* from the menu. The Format Cells dialog box opens.
5. Choose the Font tab.
6. Click Bold Italic in the Font Style box.
7. Click to open the drop-down menu associated with the Underline field. Then click Single.
8. Click OK. The words "All three" are now bolded, italicized, and underlined.

Removing Bolding and Italics by Using the Menu

1. Highlight cells A2 to B2. Place your cursor in cell B2. Press the F8 key. Press the right arrow key once.
2. Choose *Format > Cells* from the menu. The Format Cells dialog box opens.
3. Click Regular in the Font style box.
4. Click OK. Cell A2 is no longer be bolded. Cell B2 is no longer italized.

Removing an Underline by Using the Menu

1. Move to cell C2.
2. Choose *Format > Cells* from the menu. The Format Cells dialog box opens.
3. Click to open the drop-down menu associated with the Underline field. Then click None.
4. Click OK. The underdelined is removed.

Alternate Method: Adding Bold by Using the Icon

1. Type **Bold** in cell A3.
2. Click the check mark located on the Formula bar.

3. Click the Bold icon, which is on the Formatting toolbar.
4. Click again on the Bold icon if you wish to remove the bolding.

Alternate Method: Adding Italic by Using the Icon

1. Type **Italic** in cell B3.
2. Click the check mark located on the Formula bar.

3. Click the Italic icon, which is on the Formatting toolbar.
4. Click again on the Italic icon if you wish to remove the italics.

Alternate Method: Adding Underline by Using the Icon

1. Type **Underline** in cell C3.
2. Click the check mark located on the Formula bar.

3. Click the Underline icon, which is on the Formatting toolbar.
4. Click again on the Underline icon if you wish to remove the underline.

Alternate Method: Adding Bold, Underline, and Italic by Using Icons

1. Type **All Three** in cell D3.
2. Click the check mark located on the Formula bar.
3. Click the Bold icon.
4. Click the Italic icon.
5. Click the Underline icon.

Alternate Method: Adding Bold by Using Shortcut Keys

1. Type **Bold** in cell A4.
2. Click the check mark located on the Formula bar.
3. Hold down the Ctrl key while pressing "b" (Ctrl-b).
4. Press Ctrl-b again if you wish to remove the bolding.

Alternate Method: Adding Italic by Using Shortcut Keys

1. Type **Italic** in cell B4.
2. Click the check mark located on the Formula bar.
3. Hold down the Ctrl key while pressing "i" (Ctrl-i).
4. Press Ctrl-i again if you wish to remove the italic formatting.

Alternate Method: Adding Underline by Using Shortcut Keys

1. Type **Underline** in cell C4.
2. Click the check mark located on the Formula bar.
3. Hold down the Ctrl key while pressing "u" (Ctrl-u).
4. Press Ctrl-u again, if you wish to remove the underline.

Alternate Method: Adding Bold, Underline, and Italic by Using Shortcut Keys

1. Type **All three** in cell D4.
2. Click the check mark located on the Formula bar.
3. Hold down the Ctrl key while pressing "b" (Ctrl-b).
4. Hold down the Ctrl key while pressing "i" (Ctrl-i).
5. Hold down the Ctrl key while pressing "u" (Ctrl-u).

Changing the Font, Font Size, and Font Color

You can change the Font, Font Size, and Font Color of the data you enter.

Changing the Font

1. Type **Times New Roman** in cell A5.
2. Click the check mark located on the Formula bar.

3. Choose *Format > Cells* from the menu. The Format Cells dialog box opens.
4. Choose the Font tab. All of the Fonts listed in the Font box are available to you.
5. Find and click Times New Roman in the Font box.
6. Click OK.   The font changes from Arial to Times New Roman.

Changing the Font Size

1. Place the cursor in cell A5.
2. Choose *Format > Cells* from the menu. The Format Cells dialog box opens.
3. Choose the Font tab.
4. Click 16 in the Size box.
5. Click OK. The font size changes to 16.

Changing the Font Color

1. Place the cursor in cell A5.
2. Choose *Format > Cells* from the menu. The Format Cells dialog box opens.
3. Choose the Font tab.

4. Click to open the drop-down menu associated with the color field.
5. Click Blue.
6. Click OK. The font color changes to blue.

Alternate Method: Changing the Font Color by Using the Icon

1. Place the cursor in cell A5.
2. Click the down arrow next to the Font Color icon.

3. Click on Red. Your font clolor changes to red.

Working with Long Text

Whenever you type text that is too long to fit into a cell, Microsoft Excel attempts to display all the text. It left-aligns the text regardless of the alignment that has been assigned to it, and it borrows space from the blank cells to the right. However, a long text entry will never write over cells that already contain entries -- instead, the cells that contain entries cuts off the long text. Do the following exercise to see how this works.

1. Move the cursor to cell A6.
2. Type **Now is the time for all good men to go to the aid of their army**.
3. Press Enter. Everything that does not fit into cell A6 spills over into the adjacent cell.
4. Move the cursor to cell B6.
5. Type **TEST**.
6. Press Enter. The entry in cell A6 is cut off.
7. Move the cursor to cell A6.
8. Look at the Formula bar. The text is still in the cell.

Changing a Single Column Width

Earlier you increased the column width of every column on the worksheet. You can also increase individual column widths. If you increase the column width, you will be able to see the long text.

1. Make sure the cursor is anywhere under column A.
2. Choose *Format > Column > Width* from the menu. The column width dialog box opens.
3. Type **55** in the Column Width field.
4. Click OK.

Column A is set to a width of 55. You should now be able to see all of the text.

Alternate Method: Changing a Single Column Width by Dragging

You can also change the column width with the cursor.

1. Place the cursor on the line between the B and C column headings. The cursor should look like the one displayed here, with two arrows.

2. Move your mouse to the right while holding down the left mouse button. The width indicator appears on the screen.

3. Release the left mouse button when the width indicator shows approximately 40.

Moving to a New Worksheet

In Microsoft Excel, each workbook is made up of several worksheets. Before moving to the next topic, move to a new worksheet.

1. Click Sheet2 in the lower left corner of the screen.

Setting the Enter Key Direction

In Microsoft Excel, you can specify which direction the cursor moves when you press the Enter key. You can have the cursor move up, down, left, right, or not at all. You will now make sure the cursor is set to move down when you press the Enter key.

1. Choose *Tools > Options* from the menu. The Options dialog box opens.
2. Choose the Edit tab.
3. Make sure there is a check mark in the "Move Selection after Enter" box.
4. If Down is not selected, click to open the Direction drop-down box. Click Down.
5. Click OK.

Making Numeric Entries

In Microsoft Excel, you can enter numbers and mathematical formulas into cells. When a number is entered into a cell, you can perform mathematical calculations such as addition, subtraction, multiplication, and division. When entering a mathematical formula, precede the formula with an equal sign. Use the following to indicate the type of calculation you wish to perform:

+ Addition

- Subtraction

* Multiplication

/ Division

^ Exponential

Performing Mathematical Calculations

The following exercises demonstrate how to perform mathematical calculations.

Addition

1. Move your cursor to cell A1.
2. Type **1**.
3. Press Enter.
4. Type **1** in cell A2.
5. Press Enter.
6. Type **=A1+A2** in cell A3.
7. Press Enter. Cell A1 has been added to cell A2, and the result is shown in cell A3.

Place the cursor in cell A3 and look at the Formula bar.

Subtraction

1. Press F5. The Go To dialog box opens.
2. Type **B1** in the Reference field.
3. Press Enter. The cursor should move to cell B1.

4. Type **5** in cell B1.
5. Press Enter.
6. Type **3** in cell B2.
7. Press Enter.
8. Type =**+B1- B2** in cell B3.
9. Press Enter. Cell B1 has been subtracted from B2, and the result is shown in cell B3.

Place the cursor in cell B3 and look at the Formula bar.

Multiplication

1. Hold down the Ctrl key while you press "g" (Ctrl-g). The Go To dialog box opens.
2. Type **C1** in the Reference field.
3. Press Enter. You should now be in cell C1.
4. Type **2** in cell C1.
5. Press Enter.
6. Type **3** in cell C2.
7. Press Enter.
8. Type =**C1*C2** in cell C3.
9. Press Enter. Cell C1 is multiplied by cell C2 and the result is displayed in cell C3.

Place the cursor in cell C3 and look at the Formula bar.

Division

1. Press F5.

2. Type **D1** in the Reference field.
3. Press Enter. You should now be in cell D1.
4. Type **6** in cell D1.
5. Press Enter.
6. Type **3** in cell D2.
7. Press Enter.
8. Type **=D1/D2** in cell D3.
9. Press Enter. Cell D1 is divided by cell D2 and the result is displayed in cell D3.

Place the cursor in cell D3 and look at the Formula bar.

The AutoSum Icon

The AutoSum icon on the Standard toolbar automatically adds a column of numbers. The following illustrates the SUM function:

1. Go to cell F1.
2. Type **3.** Press Enter.
3. Type **3**. Press Enter.
4. Type **3**. Press Enter.
5. Click the AutoSum button, which is located on the Standard toolbar.

6. F1 to F3 should now be highlighted.
7. Press Enter. Cells F1 through F3 are added.

Automatic Calculation

If you have automatic calculation turned on, Microsoft Excel recalculates the worksheet as you change cell entries. You can check to make sure automatic calculation is turned on.

Setting Automatic Calculation

1. Choose *Tools > Options* from the menu.

2. Choose the Calculation tab.
3. Select Automatic if it is not already selected.
4. Click OK.

Trying Automatic Calculation

Make the changes outlined below and note how Microsoft Excel automatically recalculates.

1. Move to cell A1.
2. Type **2**. Press the Enter key. The results shown in cell A3 have changed. The number in cell A1 has been added to the number in cell A2 and the results display in cell A3.
3. Move to cell B1.
4. Type **6**.
5. Press the Enter key. The results shown in cell B3 have changed. The number in cell B1 has been subtracted from the number in cell B2 and the results display in cell B3.
6. Move to cell C1.
7. Type **4**. Press the Enter key. The results shown in cell C3 have changed. The number in cell C1 has been multiplied by the number in cell C2 and the results display in cell C3.
8. Move to cell D1.
9. Type **12**. Press the Enter key.   The results shown in cell D3 have changed. The number in cell D1 has been divided by the number in cell D2 and the results display in cell D3.

Formatting Numbers

You can format the numbers you enter into Microsoft Excel. You can add commas to separate thousands, specify the number of decimal places, place a dollar sign in front of the number, or display the number as a percent in addition to several other options.

Before formatting

After formatting

1. Move the cursor to cell A5.
2. Type **1234567**.
3. Press Enter.
4. Move the cursor back to cell A5.
5. Choose *Format > Cells* from the menu. The Format Cells dialog box will open.
6. Choose the Number tab.
7. Click Number in the Category box.
8. Type **2** in the Decimal Places box.
9. Place a check mark in the Use 1000 Separator box.

10. Click OK. The number should now display with two decimal places. The thousands should now be separated by commas.

Adding a Dollar Sign to a Numeric Entry

1. Move the cursor to cell A5.
2. Choose *Format > Cells* from the menu. The Format Cells dialog box opens.
3. Choose the Number tab.
4. Click Currency in the Category box.
5. Make sure there is a "$" in the Symbol box.
6. Click OK. The number displays with a dollar sign.

Alternate Method: Formatting Numbers by Using the Toolbar

1. Move the cursor to cell A6.
2. Type **1234567**.
3. Press Enter.
4. Move the cursor back to cell A6.
5. Click twice on the Increase Decimal icon to change the number format to two decimal places. Clicking on the Decrease Decimal icon decreases the decimal places.
6. Click once on the Comma Style icon to add commas to the number.
7. To change the number to a currency format, click Currency Style format.
8. Move the cursor to cell A7.
9. Type **.35** (note the decimal point).

10. Press Enter.
11. Move the cursor back to cell A7.
12. Click the Percent Style icon to turn .35 to a percent.

More Advanced Mathematical Calculations

When you perform mathematical calculations in Microsoft Excel, be careful of precedence. Calculations are performed from left to right, with multiplication and division performed before addition and subtraction.

1. Move to a new worksheet by clicking on Sheet3 in the lower left corner of the screen.

2. Go to cell A1.
3. Type **=3+3+12/2*4**.
4. Press Enter.

Note: Microsoft Excel divided 12 by 2, multiplied the answer by 4, added 3, and then added another 3. The answer, 30, displays in cell A1.

To change the order of calculation, use parentheses. Microsoft Excel calculates the information in parentheses first.

1. Double-click in cell A1.
2. Edit the cell to read **=(3+3+12)/2*4**.
3. Press Enter.

Note: Microsoft Excel added 3 plus 3 plus 12, divided the answer by 2, and multiplied the result by 4. The answer, 36, displays in cell A1.

Cell Addressing

Microsoft Excel records cell addresses in formulas in three different ways, called *absolute*, *relative*, and *mixed*. The way a formula is recorded is important when you copy it.

With relative cell addressing, when you copy a formula from one area of the worksheet to another, Microsoft Excel records the position of the cell relative to the cell that originally contained the formula. The following exercises demonstrate:

1. Go to cell A7.
2. Type **1**. Press Enter.
3. Type **1**. Press Enter.
4. Type **1**. Press Enter.
5. Go to cell B7.
6. Type **2**. Press Enter.
7. Type **2**. Press Enter.
8. Type **2**. Press Enter.
9. Go to cell A10.

In addition to typing a formula, as you did in Lesson 1, you can also enter formulas by using Point mode. When you are in Point mode, you can enter a formula either by clicking on a cell with your mouse or by using the arrow keys.

1. You should be in cell A10.
2. Type **=**.
3. Use the up arrow key to move to cell A7.
4. Type **+**.
5. Use the up arrow key to move to cell A8.
6. Type **+**.
7. Use the up arrow key to move to cell A9.
8. Press Enter.
9. Look at the Formula bar while in cell A10. Note that the formula you entered is recorded in cell A10.

Copying by Using the Menu

You can copy entries from one cell to another cell. To copy the formula you just entered, follow these steps:

1. You should be in cell A10.
2. Choose *Edit > Copy* from the menu. Moving dotted lines appear around cell A10, indicating the cells to be copied.
3. Press the Right Arrow key once to move to cell B10.
4. Choose *Edit > Paste* from the menu. The formula in cell A10 is copied to cell B10.
5. Press Esc to exit the Copy mode.

Compare the formula in cell A10 with the formula in cell B10 (while in the respective cell, look at the Formula bar). The formulas are the same except that the formula in cell A10 sums the entries in column A and the formula in cell B10 sums the entries in column B. The formula was copied in a *relative* fashion.

Before proceeding with the next exercise, you must copy the information in cells A7 to B9 to cells C7 to D9. This time you will copy by using the Formatting toolbar.

Copying by Using the Formatting Toolbar

1. Highlight cells A7 to B9. Place the cursor in cell A7. Press F8. Press the down arrow key twice. Press the right arrow key once. A7 to B9 should be highlighted.

2. Click the Copy icon   , which is located on the Formatting toolbar.
3. Use the arrow key to move the cursor to cell C7.

4. Click the Paste icon   , which is located on the Formatting toolbar.
5. Press Esc to exit Copy mode.

Absolute Cell Addressing

An *absolute* cell address refers to the same cell, no matter where you copy the formula. You make a cell address an absolute cell address by placing a dollar sign in front of both the row and column identifiers. You can do this automatically by using the F4 key. To illustrate:

1. Move the cursor to cell C10.
2. Type =.
3. Use the up arrow key to move to cell C7.
4. Press F4. Dollar signs should appear before the C and before the 7.
5. Type +.
6. Use the up arrow key to move to cell C8.
7. Press F4.
8. Type +.
9. Use the up arrow key to move to cell C9.
10. Press F4.
11. Press Enter. The formula is recorded in cell C10.

Copying by Using the Keyboard Shortcut

Now copy the formula from C10 to D10. This time, you will copy by using the keyboard shortcut.

1. Your cursor should be in cell C10.
2. Hold down the Ctrl key while you press "c" (Ctrl-c). This copies the contents of cell C10.
3. Press the right arrow once.
4. Hold down the Ctrl key while you press "v" (Ctrl-v). This pastes the contents of cell C10 in cell D10.
5. Press Esc to exit the Copy mode.

Compare the formula in cell C10 with the formula in cell D10. They are the same. The formula was copied in an *absolute* fashion. Both formulas sum column C.

Mixed Cell Addressing

You use mixed cell addressing to reference a cell that is part absolute and part relative. You can use the F4 key.

1. Move the cursor to cell E1.
2. Type =.
3. Press the up arrow key once.
4. Press F4.
5. Press F4 again. Note that the column is relative and the row is absolute.
6. Press F4 again. Note that the column is absolute and the row is relative.
7. Press Esc.

Deleting Columns

You can delete columns from your spreadsheet. To delete columns C and D:

1. Click on column C and drag to column D.

2. Choose *Edit > Delete* from the menu. Column D is deleted.
3. Click anywhere on the spreadsheet to remove your selection.

Deleting Rows

You can delete rows from your spreadsheet. To delete rows 1 through 4:

1. Click the row 1 and drag to row 4.

1. Choose *Edit > Delete* from the menu. Rows 1 through 4 are deleted.
2. Click anywhere on the spreadsheet to remove your selection.

Inserting Columns

There will be times when you will need to insert a column or columns into your spreadsheet. To insert a column:

1. Click on A to select column A.
2. Choose *Insert > Columns* from the menu. A column is inserted to the right of column A.
3. Click anywhere on the spreadsheet to remove your selection.

Inserting Rows

You can also insert rows into your spreadsheet:

1. Click on 2 to select row 2.
2. Choose *Insert > Rows* from the menu. A row is inserted above row 2.
3. Click anywhere on the spreadsheet to remove your selection.

Creating Borders

You can use borders to make entries on your spreadsheet stand out. Accountants usually place a single underline above a final number and a double underline below. The following illustrates:

1. Go to cell B7.
2. Choose *Format > Cells* from the menu.
3. Choose the Border tab.

4. In the Style box, click on the single underline.

5. Click the top of the Border box.
6. In the Style box, click on the double underline.
7. Click the bottom of the Border box.
8. Click OK. Cell B7 now has a border.

Alternate Method: Creating Borders by Using the Icon

1. Go to cell C7. Click the down arrow beside the Borders icon.

2. Select the Top and Double Bottom Border. Cell C7 now has borders.

Merge and Center

You will sometimes want to center a piece of text over several columns. The following example shows you how.

1. Go to cell B1.
2. Type **Sample Spreadsheet**.
3. Click the check mark on the Formula bar.
4. Select columns B1 to D1.

5. Click the Merge and Center icon   on the formatting toolbar. Cells B1, C1, and D1 are merged and centered.

Adding Background Color

You can add background color to a cell or group of cells:

1. Go to cell B1.
2. Choose *Format > Cells* from the menu.
3. Choose the Patterns tab.

4. Choose Sky Blue.
5. Click OK. The background of cell B1 is now Sky Blue.

Alternate Method: Adding Background Color by Using the Icon

1. Select cells B7 to D7.

2. Click the down-arrow next to the Fill Color icon   .

3. Select Pale Blue. The background of cells B7 to D7 is now Pale Blue.

Using Auto Format

You can format your data manually or you can use one of Microsoft Excel's many AutoFormats.

1. Select cells B1 to D7.

2. Choose *Format > Auto Format* from the menu. Several formats are listed from which you can choose.
3. Choose the Accounting 2 format.
4. Click OK. Your data is formatted in the Accounting 2 style.

Saving Your File

To save your file:

1. Choose *File>Save* from the menu.
2. Go to the directory in which you want to save your file.
3. Type **lesson2** in the File Name field.
4. Click Save.

Closing Microsoft Excel

This is the end of Lesson 2. Close Microsoft Excel.

1. Choose *File > Exit* from the menu.

Lesson 3: Numbers and Mathematical Calculations

[Microsoft Excel](#)

has many functions that you can use. Functions allow you to quickly and easily find an average, the highest number, the lowest number, a count of the number of items in a list, and make many other useful calculations.

Reference Operators

Reference operators refer to a cell or a group of cells. There are two types of reference operators, *range* and *union*.

A range reference refers to all the cells between and including the reference. A range reference consists of two cell addresses separated by a colon. The reference A1:A3 includes cells A1, A2, and A3. The reference A1:C3 includes A1, A2, A3, B1, B2, B3, C1, C2, and C3.

A union reference includes two or more references. A union reference consists of two or more cell addresses separated by a comma. The reference A7,B8,C9 refers to cells A7, B8, and C9.

Functions

Microsoft Excel has a set of prewritten formulas called *functions*. Functions differ from regular formulas in that you supply the value but not the operators, such as +, -, *, or /. For example, you can use the SUM function to add. When using a function, remember the following:

Use an equal sign to begin a formula.

Specify the function name.

Enclose arguments within parentheses.

Use a comma to separate arguments.

Here is an example of a function:

=SUM(2,13,A1,B27)

In this function:

The equal sign begins the function.

SUM is the name of the function.

2, 13, A1, and B27 are the arguments.

Parentheses enclose the arguments.

A comma separates the arguments.

The SUM function adds the arguments together. In the exercises that follow, we will look at various functions.

Typing a Function

1. Open Microsoft Excel.
2. Type **12** in cell B1.
3. Press Enter.
4. Type **27** in cell B2.
5. Press Enter.
6. Type **24** in cell B3.
7. Press Enter.
8. Type **=SUM(B1:B3)** in cell A4.
9. Press Enter. Microsoft Excel sums cells B1 to B3.

Alternate Method: Entering a Function by Using the Menu

1. Type **150** in cell C1.
2. Press Enter.
3. Type **85** in cell C2.
4. Press Enter.
5. Type **65** in cell C3.
6. Press Enter. Your cursor should be in cell C4.
7. Choose *Insert > Function* from the menu.
8. Choose Math & Trig in the Or Select A Category box.
9. Click Sum in the Select A Function box.

10. Click OK. The Functions Arguments dialog box opens.
11. Type **C1:C3** in the Number1 field, if it does not automatically appear.
12. Click OK. Microsoft Excel sums cells C1 to C3.
13. Move to cell A4.
14. Type the word **Sum**.
15. Press Enter.

As you learned in Lesson 2, you can also calculate a sum by using the Sum icon.

Calculating an Average

You can use the AVERAGE function to calculate the average of a series of numbers.

1. Move your cursor to cell A6.
2. Type **Average**.Press the right arrow key to move to cell B6.
3. Type **=AVERAGE(B1:B3)**.
4. Press Enter. The average of cells B1 to B3, which is 21, will appear.

Calculating an Average by Using the Sum Icon

In Microsoft Excel XP, you can use the Sum icon to calculate an average.

1. Move your cursor to cell C6.
2. Click the drop-down arrow next to the Sum icon.
3. Click Average.
4. Highlight C1 to C3.
5. Press Enter. The average of cells C1 to C3, which is 100, appears.

Calculating Min

You can use the MIN function to find the lowest number in a series of numbers.

1. Move your cursor to cell A7.
2. Type **Min**.
3. Press the right arrow key to move to cell B7.
4. Type = **MIN(B1:B3)**.
5. Press Enter. The lowest number in the series, which is 12 appears.

Calculating Max

You can use the MAX function to find the highest number in a series of numbers.

1. Move your cursor to cell A8.
2. Type **Max**.
3. Press the right arrow key to move to cell B8.
4. Type = **MAX(B1:B3)**.
5. Press Enter. The highest number in the series, which is 27, appears.

Note: You can also use the drop-down menu next to the Sum icon to calculate minimums and maximums.

Calculating Count

You can use the count function to count the number of items in a series.

1. Move your cursor to cell A9.
2. Type **Count**
3. Press the right arrow key to move to cell B9.
4. Click the down arrow next to the Sum icon.
5. Click Count.
6. Highlight B1 to B3.
7. Press Enter. The number of items in the series, which is 3 appears.

Filling Cells Automatically

You can use Microsoft Excel to fill cells automatically with a series. For example, you can have Excel automatically fill in times, the days of the week or months of the year, years, and other types of series. Days of the week and months of the year fill in a similar fashion. The following demonstrates filling the days of the week:

1. Move to Sheet2.
2. Move to cell A1.
3. Type **Sun**.
4. Move to cell B1.
5. Type **Sunday**.
6. Highlight cells A1 to B1.
7. Bold cells A1 to B1.
8. Find the small black square in the lower right corner of the highlighted area. This is called the Fill Handle.
9. Grab the Fill Handle and drag with your mouse to fill cell A1 to B24. Note how the days of the week fill the cells in a series. Also, note that the Auto Fill Options icon appears.

10. Click the Auto Fill Options icon.
11. Choose the Copy Cells radio button. The entry in cells A1 and B1 are copied to all the cells highlighted.
12. Click the Auto Fill Options icon again.
13. Choose the Fill Series radio button. The cells fill as a series from Sunday to Saturday again.
14. Click the Auto Fill Options icon again.
15. Choose the Fill Without Formatting radio button. The cells fill as a series from Sunday to Saturday, but the entries are not bolded.

16. Click the Auto Fill Options icon again.
17. Choose the Fill Weekdays radio button. The cells fill as a series from Monday to Friday.

Some of the entries in column B are too long to fit in the column. You can quickly adjust the column width to fit the longest entry.

1. Move your cursor over the line that separates column B and C. The Width Indicator appears.

2. Double-click. The Column adjusts to fit the longest entry.

The following demonstrates filling time:

1. Type **1:00** into cell C1.
2. Grab the Fill Handle and drag with your mouse to highlight cells A1 to A24. Note that each cell fills using military time.
3. Press Esc and then click anywhere on the worksheet to remove the highlighting.

To change the format of the time:

1. Select cells C1 to C24.
2. Choose *Format > Cells* from the menu.
3. Choose the Number tab.
4. In the Category box, choose Time.
5. In the Type box, choose 1:30 PM.
6. Click OK. The time is no longer in military time.

You can also fill numbers.

Type a **1** in cell D1.

1. Grab the Fill Handle and drag with your mouse to highlight cells D1 to D24. The number 1 fills each cell.
2. Click the Auto Fill Options icon.
3. Choose the Fill Series radio button. The cells fill as a series starting with 1, 2, 3.

Here is another interesting fill feature.

1. Go to cell E1.
2. Type **Lesson 1**.
3. Grab the Fill Handle and drag with your mouse to highlight cells E1 to E24.
4. The cells fill in as a series: Lesson 1, Lesson 2, Lesson 3, and so on.

Printing

The simplest way to print is to click the Print icon located on the Standard toolbar. Dotted lines will appear on your screen after you click the print icon. The dotted lines indicate the right, left, top, and bottom edges of your printed pages.

Print Preview

There are many print options. You can select print options options in Page Setup or in Print Preview. In Print Preview, you can see the results of your selections onscreen. You can use print options to:

- Determine whether to print landscape or portrait. If you print portrait on an 8 1/2 by 11 sheet of paper, the length across the top of your page will be 8 1/2 inches. If you print landscape on an 8 1/2 by 11 sheet of paper, the length across the top of your page will be 11 inches.
- Scale your [document](). If your data is small in comparison to the page, you may want to scale upward so the data fills the entire page. If your data is too large to fit on the page, you may want to scale downward.
- Specify how many pages wide and how many pages long you want your printed document to be.
- Select the paper size and print quality.
- Set the first page number.

If you choose the Margins tab, you can:

- Set the size of your margins including your header and footer margins.
- Center your spreadsheet horizontally and/or vertically on the page.

If you choose the Header/Footer tab, you can select headers and footers. A header is text that appears at the top of every page. A footer is text that appears at the bottom of every page. You can use headers and footers to insert page numbers, dates, and other information.

To choose a header:

1. Choose the Header/Footer tab.
2. Click the down arrow next to the Header field to open the drop-down box for the header field.
3. Choose a Header from the list.

To choose a footer:

1. Choose the Header/Footer tab.
2. Click the down arrow next to the Footer field to open the drop-down box for the Footer field.
3. Choose a Footer from the list.

Click the Custom Header or Custom Footer button to customize your headers and footers.

Use the Left Section to place your options on the left side of the page, the Center Section to place your options in the center of the page, and the Right Section to place your optionds 9on the right side of the page.

The Sheet tab has options that allow you to choose which rows and columns will repeat at the left and the top of the page. It also has options that allows you to determine whether gridlines and/or row column headings print

To preview and print your spreadsheet:

1. Choose *File > Preview* from the menu.
2. Click Setup.
3. Choose the Page tab.
4. Choose Portrait.
5. In the Adjust To field, type **110%** to set the size to 110%,.
6. Choose the Margin tab.
7. Check the Horizontally box in the Center On Page frame to center your spreadsheet horizontally.
8. Click OK.
9. Click Print. The Print dialog box opens.
10. Click OK to print the file.

Saving Your File

To save your file:

1. Choose *File>Save* from the menu.
2. Go to the directory in which you want to save your file.
3. Type **lesson3** in the File Name field.
4. Click Save.

Closing Microsoft Excel

This is the end of Lesson 3. Close Microsoft Excel.

1. Choose *File > Exit* from the menu.

Lesson 4: Creating Charts

Using Microsoft Excel, you can represent numbers in a chart. You can choose from a variety of chart types. And, as you change your data, your chart will automatically update. You can use Microsoft Excel's Chart Wizard to take you through the process step-by-step.

Creating a Column Chart

To create the column chart shown above, start by creating the spreadsheet below exactly as shown.

After you have created the spreadsheet, you are ready to create your chart.

1. Highlight cells A3 to D6. You must highlight all the cells containing the data you want in your chart. You should also include the data labels.
2. Choose *Insert > Chart* from the menu.
3. Click Column to select the type of chart you want to create.
4. In the Chart Sub-type box, choose the Clustered Column icon to select the chart sub-type.

5. Click Next.
6. To place the product names on the x-axis, select the Columns radio button.
7. Click Next.
8. Type Toy Sales in the Chart Title field. Toy Sales will appear as the title of your chart.
9. Type Products in the Category (X) Axis field. Products will appear as your x-axis title.
10. Type Units Sold in the Value (Y) Axis field. Units Sold will appear as your y-axis title.
11. Choose the Data Labels tab.
12. Select Value in the Labels Contain Frame to display the data labels as values.
13. Choose the Data Table tab.
14. Select Show Data Table. The data table will appear below your chart.
15. Click Next.
16. Choose As Object In Sheet1 to make your chart an embedded object and part of the worksheet.
17. Click Finish
18. Your chart will appear on the spreadsheet.

Changing the Size and Position of a Chart

When you select a chart, handles appear on the right and left sides, the top and bottom, and the corners of the chart. You can drag the handles on the top and bottom of the chart to increase or decrease the height of the chart. You can drag the handles on the left and right sides of the chart to increase or decrease the width of the chart. You can drag the handles on the corners of the chart to increase or decrease the size of the chart proportionally.

You can change the position of a chart by clicking on the chart and dragging

1. Use the handles to adjust the size of your chart.
2. Click the chart and drag to position the chart under the data.

Modify Your Chart

You can modify your chart by using the Chart [toolbar](). If the Chart toolbar is not already available, choose View > Toolbars > Chart from the menu.

Chart Toolbar

To change the data area font size:

1. Click the down arrow on the Chart toolbar. A drop-down menu opens.
2. Choose Data Table from the drop-down menu.

3. Click the Options icon   . Choose the Font tab.
4. In the Size box, type 8.
5. Click OK. Your font size is now 8.

To change the angle of the data labels:

1. Click the down arrow on the Chart toolbar. A drop-down menu opens.
2. Choose "Region 1" Data Labels from the drop-down menu.

3. Click the Angle Counter Clockwise icon   . The Region 1 Data Labels are angled counter-clockwise.
4. Repeat this process for Regions 2 and 3.

To change the font size of the Region data labels:

1. Click the down arrow on the Chart toolbar. A drop-down menu opens.
2. Choose "Region 1" Data Labels from the drop-down menu.
3. Click the Options icon. Choose the Font tab.
4. In the Size box, type 6.
5. Click OK. Your font size is now 6.
6. Repeat this process for Region 2 and 3.

You can also make changes by double-clicking on the item you want to change.

To change the chart scale:

1. Double-click on the scale. The Format Axis dialog box opens.

2. Choose the Scale tab.
3. Type 400 in the Major Unit field.
4. Click OK. Your chart is now scaled in units of 400.

Saving Your File

To save your file:

1. Choose *File>Save* from the menu.
2. Go to the directory in which you want to save your file.
3. Type **lesson4** in the File Name field.
4. Click Save.

Closing Microsoft Excel

This is the end of Lesson 4. Close Microsoft Excel.

1. Choose *File > Exit* from the menu.

Table of Contents

Lesson 1: Entering Text and Numbers

Microsoft **Excel** is an electronic spreadsheet that runs on a personal computer. You can use it to organize your data into rows and columns. You can also use it to perform mathematical calculations quickly. This tutorial teaches Microsoft Excel basics. Although knowledge of how to navigate in a Windows environment is helpful, this tutorial was created for the computer novice. This lesson will introduce you to the Excel window. You use the window to interact with Excel.

- The Microsoft Excel Window

- [Moving Quickly Around the Microsoft Excel Worksheet](#)
- [Selecting Cells](#)
- [Entering Data](#)
- [Editing a Cell](#)
- [Changing a Cell Entry](#)
- [Wrapping Text](#)
- [Deleting a Cell Entry](#)
- [Entering Numbers as Labels or Values](#)
- [Smart Tags](#)
- [Saving a File](#)
- [Closing Microsoft Excel](#)

Lesson 2: Formatting Text and Performing Mathematical Calculations

Lesson 1 familiarized you with the Excel 2007 window. A major strength of Excel is that you can perform mathematical calculations and format your data. In this lesson, you learn how to perform basic mathematical calculations and how to format text and numerical data.

- [Choosing a Default Font](#)
- [Adjusting the Standard Column Width](#)
- [Cell Alignment](#)
- [Adding Bold, Underline, and Italic](#)
- [Changing the Font, Font Size, and Font Color](#)
- [Working with Long Text](#)
- [Changing a Single Column Width](#)
- [Moving to a New Worksheet](#)
- [Setting the Enter Key Direction](#)
- [Making Numeric Entries](#)
- [Performing Mathematical Calculations](#)
- [The AutoSum Icon](#)
- [Automatic Calculation](#)
- [Formatting Numbers](#)
- [More Advanced Mathematical Calculations](#)
- [Cell Addressing](#)
- [Deleting Columns](#)
- [Deleting Rows](#)
- [Inserting Columns](#)
- [Inserting Rows](#)
- [Creating Borders](#)
- [Merge and Center](#)
- [Adding Background Color](#)
- [Using Auto Format](#)
- [Saving Your File](#)
- [Closing Microsoft Excel](#)

Lesson 3: Numbers and Mathematical Calculations

By using functions, you can quickly and easily make many useful calculations, such as finding an average, the highest number, the lowest number, and a count of the number of

items in a list. Microsoft Excel has many functions you can use. This lesson teaches you how to use functions and how to print.

- Reference Operators
- Functions
- Typing a Function
- Calculating an Average
- Calculating Min
- Calculating Max
- Calculating Count
- Filling Cells Automatically
- Printing
- Print Preview
- Saving Your File
- Closing Microsoft Excel

Lesson 4: Creating Charts

In Microsoft Excel, you can represent numbers in a chart. This lesson teaches you how to create a chart in Excel.

- Creating a Column Chart
- Changing the Size and Position of a Chart
- Modify Your Chart
- Saving Your File
- Closing Microsoft Excel