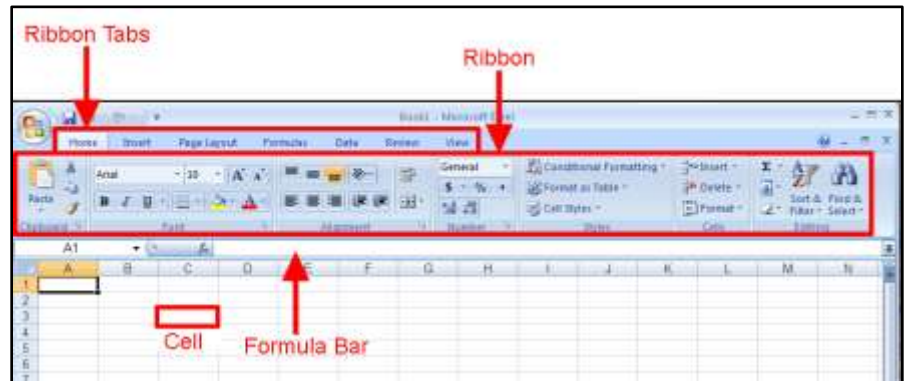# Microsoft Excel 2010
Lesson 1: Introduction

Microsoft Excel is a spreadsheet program that enables us to organize and make calculations with large amounts of data.

When you open Excel, you will see something like this picture.

The **Ribbon** that you see will depend on the tab that is active. The **Home** ribbon is illustrated in the picture at the right.

The basic element of an Excel worksheet is a **cell.** The cells are arranged in **rows** (labeled with numbers) and **columns** (labeled with letters). Each cell is designated by its column and row – the cell shown above is called C3, for example. Many of the icons on the **ribbons** have the same function as on other Microsoft products. A few, some of which we will encounter in these lessons, are limited to Excel.

Entering Text

Click on cell A1 to select it and type in the phrase "Example Worksheet." Notice that the entry is displayed both in the cell and in the formula bar.
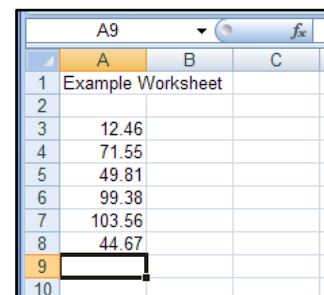
Press twice on the **down arrow key** on the keyboard to move the cursor down to cell A3.
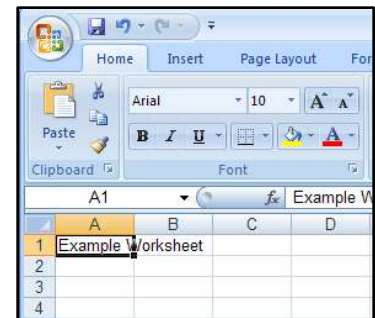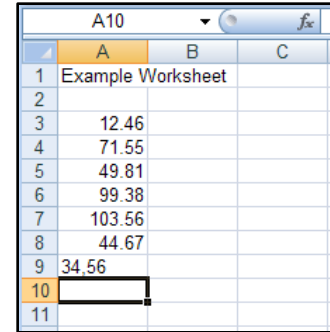
Entering Data

The cursor now should be on cell A3. Type in the number 12.46.

After you have entered the number, press the **down arrow key** on the keyboard to move the cursor down to cell A3. Enter more data as shown here.

Correcting an Error

In the cell A9, make a typing error by entering the number with a comma rather than a decimal point (34,56). It is evident that something is wrong because the "number" is displayed left-justified in the cell, indicating that Excel has interpreted the entry as text rather than as a number.
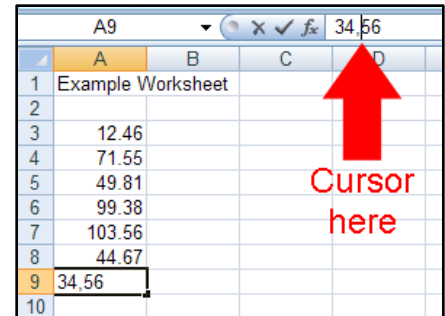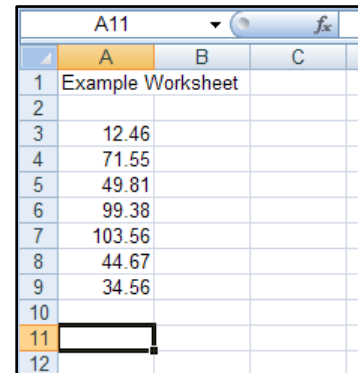
Click on the cell with the error and move the cursor up to the formula bar, so that it is to the right of the comma.

Press the **backspace key** (BkSp) on the keyboard to erase the comma and then type a period. This will correct the error.

Press the **Enter** key and then the down arrow key to move the cursor to cell A11.

## Calculations with the AutoSum Function

Let's add the seven numbers in cells A3 through A9 and place the sum in cell A11. With the cursor in cell A11, click on the **AutoSum** function button in the **Home** ribbon.
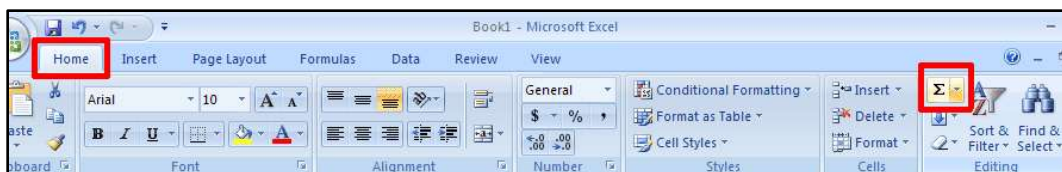
When you choose the **AutoSum** function in a cell, Excel looks for numbers in either the row or column shared by the cell. It chooses a range beginning with the most distant number in the row or column and adds all of them

In this example, you will see cells A3 through A10 surrounded by a dotted line, indicating that these cells are in the range being summed.

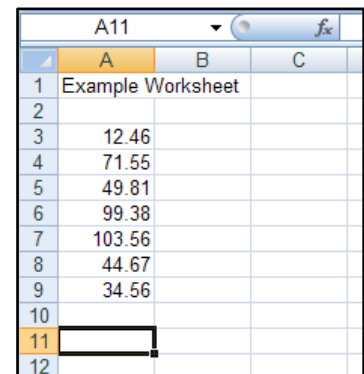The formula **=SUM(A3:A10)** in cell A11 designates the sum of all numbers in cells A3 through A10.
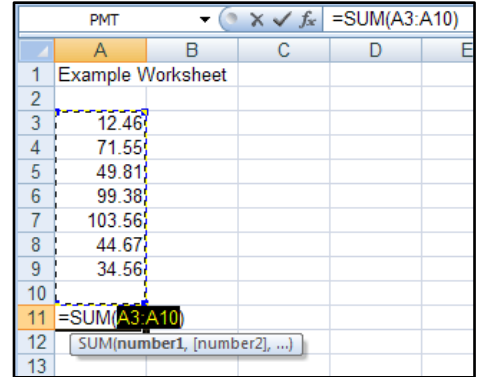
Press the Enter key to calculate the sum.
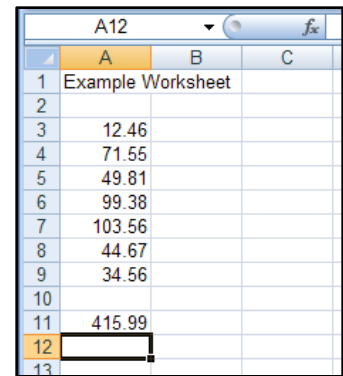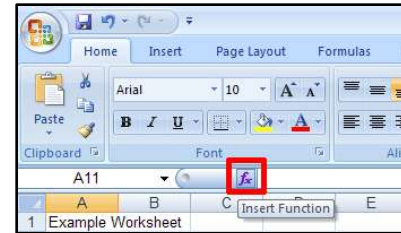
Deleting the Contents of a Cell

Other functions also are available. Let's erase the contents of cell A11 and use another function these. Move back to cell A11 and press the **Delete key** on the keyboard to delete the contents of the cell.
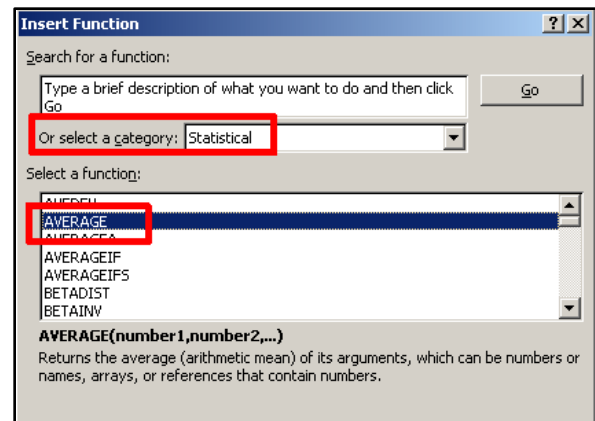
Calculations with Other Functions

Click on the **Function** button at the left of the formula bar.

Suppose that you want to calculate the average of the numbers in cells A3 through A9. Select the **Statistical** function category and the **AVERAGE** function name. Click on **OK**.

Next you will see the Function Arguments window. The function arguments default to the same range of numbers as for the AutoSum: A3 through A10. The function also is shown in the formula bar:

=AVERAGE(A3:A10)
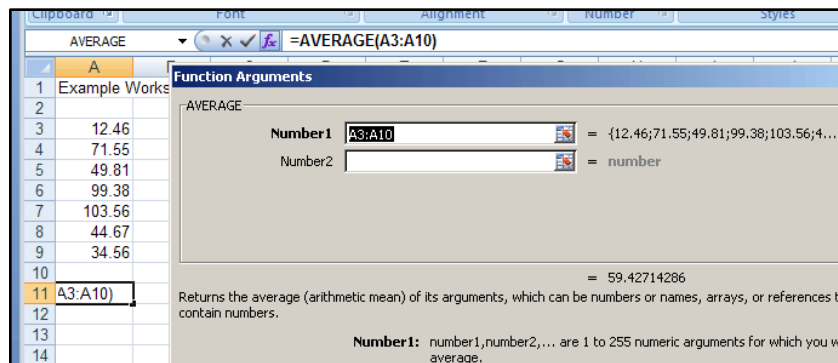
We could change the range to A3:A9, but in this case it does not matter. *The AVERAGE function ignores blank cells when calculating the average.*

Click on **OK** in the Function Arguments window.
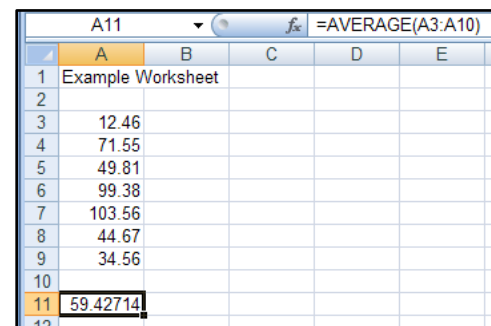
Formatting Text

You can change the format of text. Suppose that we want the title of the worksheet to be larger and to be emphasized in bold. Move the cursor to cell A1 and, in the **Home** ribbon, click on the small triangle at the right of the **font size** box in the formatting toolbar. Choose **12-point** text.
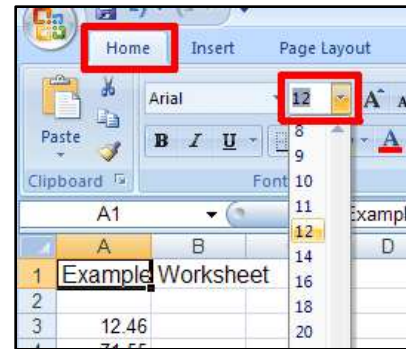
With the cursor still on cell A1, click on **Bold** icon in the **Home** ribbon.

Finally, with the cursor in cell A1, hold down the **Shift key** and click on cell I26. This will select all the text between these cells. Choose **Arial** font.
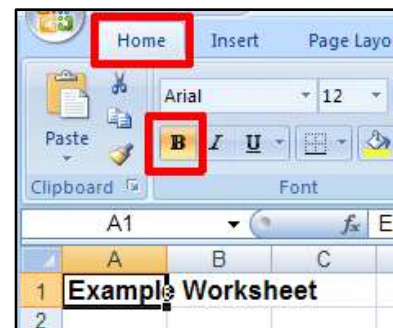
Changing the Decimal Places in a Number

You also can change the format of numbers. You may want to change the number of decimal places displayed for one or more numbers, for example. In our example worksheet, the data have only two decimal places, but the average is displayed with five decimal places – more significance than is justified for the calculated number. We would like to display the average so that it too is displayed with only two decimal places.

Click on cell **A11**. In the **Home** ribbon, click on the **Decrease Decimal** icon three times until it becomes **59.43**.
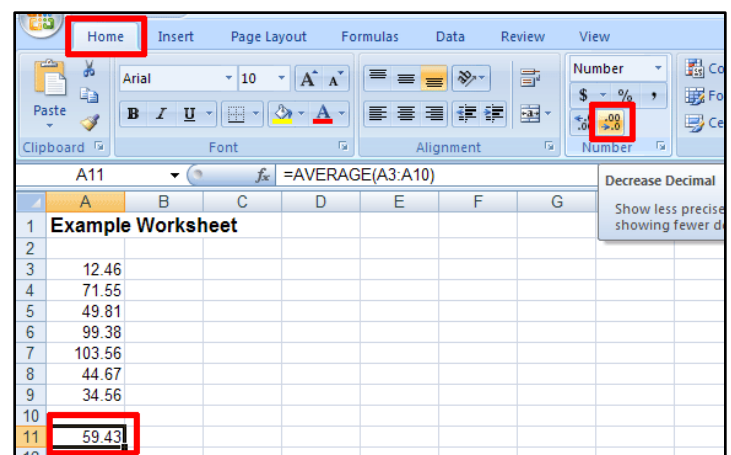
NOTE: Although the number in cell A11 is only displayed with two decimal places, Excel actually retains many more decimal places for the number than this. The format of a number changes only what you see on the screen, not what is in the computer's memory.

Saving a Worksheet

Click on the **File** and and **Save As**.

Save the file on your H: drive as an **Excel Workbook** with the name "MySS".