If Functions

The If Function is used to perform logical tests on data in a worksheet. If the logical test is True, one value will be displayed; if it is False, another value will be displayed. To input an If function, complete the steps below:

Creating a Simple IF Function
- Open the document Formula from the area where it was stored when it was downloaded from the Excel Training Web page.
- Click in cell C10.
- Click the Insert Function button next to the Formula Bar (see illustration at right).
- The Insert Function dialog box appears (see illustration below).

![Insert Function dialog box]

- In the Or select a Category list, select Logical.
- In the Select a Function box, click IF.
- Click the OK button.
- The second Function Arguments dialog box will appear (see illustration on next page).
- In the Logical_test box, input D7>50.
- In the Value_if_true box, input 5% discount.
- In the Value_if_false box, input No discount. This statement says:
  - If D7 is greater than 50, then input the words 5% discount for the results of the function.
  - If D7 is not greater than 50, then input the words No discount.
The information pertaining to the formula will appear in the dialog box (see illustration above).

Click the Help on this function link to find out more information about using IF functions.

Click OK to exit the dialog box.

The message 5% discount should appear in cell C10.

Click in cell D4.

Input a different value less than $30.00 to see what happens with the function results.

Using the AND Function
The AND function is used to specify more than one criteria that the selected data has to meet in order for the statement to be true. If it doesn’t meet both criteria, then the statement is False.

Open the Employee workbook from the area where it was stored when it was downloaded from the Excel Web page.

Click cell F2 to make it the active cell.

Input =IF(AND(B2="FT",D2>=1),E2*0.03,0).

The information in the Formula Bar will look like the illustration below.

This formula says:

☆ If the value in cell B2 equals FT and the value in cell D2 is greater than or equal to 1, then multiply the value in cell E2 by 0.03.

☆ If the values in both B2 and D2 do not meet the specified criteria, then input zero (0).

Press Enter or click the Enter button (check mark) on the Formula Bar to accept the formula.

Copy the formula in cell F2 to the range F3:F7.

Nesting IF Functions
With Excel, it is possible to place one IF statement into another IF statement. When this type of IF statement is used, the program looks at the first statement. If the first statement doesn’t match the criteria, then the program will look at the second statement and return a value meeting the criteria for the second statement. If neither condition is met, then the False value is input.
Click cell G2 to make it the active cell.

Type =IF(C2="F",5000,IF(C2="I",4000,0)). This formula says:
- If the value in C2 is equal to the letter F, then input 5000.
- If the value in C2 is equal to the letter I, then input 4000.
- If the value in C2 doesn’t equal either of these values, then input zero (0).
- The information in the Formula Bar will look like the illustration below.

Press the Enter key or click the Enter button on the Formula Bar to accept this formula.

Copy the formula in cell G2 to the range G3:G7.