Extra Help for Logic Statements in Excel

Chapter 3 introduces the concept of "If"analysis, which is one way to use logic statements in Excel.

Argument – No, it's not a disagreement with another person. In Excel, an argument is:

Independent data-holding items that are used to pass values into and out of functions. For example, if a function is =SUM(*argument*), you would replace *argument* with the values you wanted summed (added), such as A3+A4. Roughly synonymous with parameters.

Parameter – No, it's not the limit of what you will learn in class. In Excel, parameter refers to:

A value or values that are passed to a function so that it can accomplish its task. Excel parameters are the things held within function parentheses and separated by commas.

Example: = IF(G20>500,0,G20*5%)
The parameter is everything inside the parentheses.

Function – No, it's not a social gathering. In Excel, a function is:

A programmed routine that accomplishes some task. Most Excel functions take information from your worksheet in pieces called arguments which they use in their work for computing formulas or computations.

A function is a kind of wheel built into Excel – a wheel that lets you quickly figure something out or manipulate your data. Instead of your having to recreate a solution, you simply use one of Excel's functions.

TEACHER'S NOTE: I often refer to functions as 'pre-programmed formulas'. Formulas that we don't have to memorize or create each time we wish to use them. As long as we know the key term for the function and use the correct syntax (=keyterm()), the function will perform the calculation.

An Excel function has three parts:

- **The function name identifies it to you and to Excel. There's a couple of things you'll want to remember about function names:**
  - **First, spell it correctly as you type it in.**
  - **Second, although you may type in lowercase, when Excel accepts your entry as being correct, it converts the function name to uppercase. Nice little double-check, isn't it?**

* THE COMPLETE INDIOT'S GUIDE TO EXCEL and EXCEL ONE STEP AT A TIME.

- **A pair of parentheses that immediately follow the name, with no space between them and the name. They are there to enclose the function's arguments.**

- **One or more arguments allow you to give the function the information it needs to do its calculation. Each argument is separated by a comma. Arguments can be numbers, a cell reference, a name, or text – or another function. You enclose test arguments in quotation marks. That way Excel can know that this is text and not the name of a cell (or group of cells) or a cell reference.**

Now that you know some important vocabulary associated with If analysis and functions, here is a slight definition:

The most powerful of the logical functions is =IF. This function returns one value if a condition is true, another if the condition is false. The syntax (correct format) is:

=IF(condition, value-when -true, value-when-false)

As an example, suppose you use a worksheet to prepare an invoice. If the order is over $500, you do not charge shipping. Otherwise, the shipping charge is 5% of the order amount. If the order amount were in cell G20, you would use this function to calculate the amount in the cell where you wish to determine shipping charge:

=IF(G20>500,0,G20*5%)