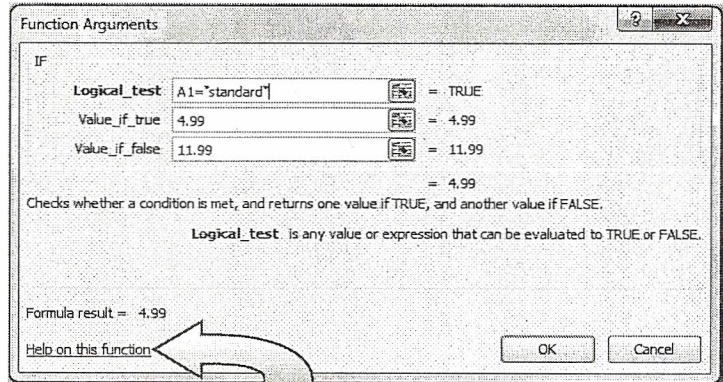


The IF function can be one of Excel's trickiest functions to understand, but also one of the most useful! Put simply, the purpose of an IF function is to test whether a certain condition is true or false.

There are 3 components to an IF Function:

- 1) Logical Test
- 2) Value if True
- 3) Value if False

The **logical test** is based on comparisons. For example, the logical test could check whether the value in cell A1 is equal to, greater than, less than, greater than or equal to, less than or equal to, or not equal to a numerical value, a certain text, or the value in another cell (which may be numerical or textual).



If you're stuck, use Microsoft's handy Help page concerning IF functions!

Tests whether A1 is ____ another value	
A1=	Equal to
A1>	Greater than
A1<	Less than
A1>=	Greater than or equal to
A1<=	Less than or equal to
A1<>	Not equal to

Logical Test Examples			
A1>100	A1<=B1	A1="standard"	A1<>0
A1>=10	A1=C5	A1="overnight"	A1<>D1

I used cell A1 in all examples, but you will need to find the cell with the data that pertains to your specific function.

Practical Advice- Be sure you insert the IF function where you want to display the results of the function. If you are inserting a function to determine the shipping cost on an order, put the function where the shipping cost (in \$) will be displayed.

Once the purpose of the logical test and what context to use it in is understood, all that remains is the possible outcomes of the function- **Value if true** and **value if false**. These can be quite simple or fairly difficult depending on the purpose of the If functions. Here are some examples.

Purpose	Logical Test	Value if True	Value if False
† To charge customer either a "standard" or "overnight" shipping rate	A1="standard"	4.99 [standard shipping rate (\$)]	11.99 [overnight shipping rate (\$)]
†† To offer 10% discount on orders of 100 units or more	A1>=100	A20*.10	0

† See example in top right corner

†† Substitute A1 for the cell in which the **number of units ordered** would be located. A20 would be the **subtotal price of the order** times the 10% discount and function should be inserted into the cell containing the **discount**. Value if False is 0 because no discount will be given to orders for less than 100 units. The subtotal minus the discount will give the total.