IF statement

You need to think logically when you do an IF statement. Working on paper and pencil may help you to perform an IF statement before you directly type your statement into the cell.

An IF statement is a conditional test on values and formulas that returns one value if a condition you specify is TRUE and another value if it is FALSE.

IF(logical_test,value_if_true,value_if_false)

Basic IF Statement

For example, if the following sales people sold more than 45 items, in the assessment cell it should say "PASS", otherwise, "FAILED".

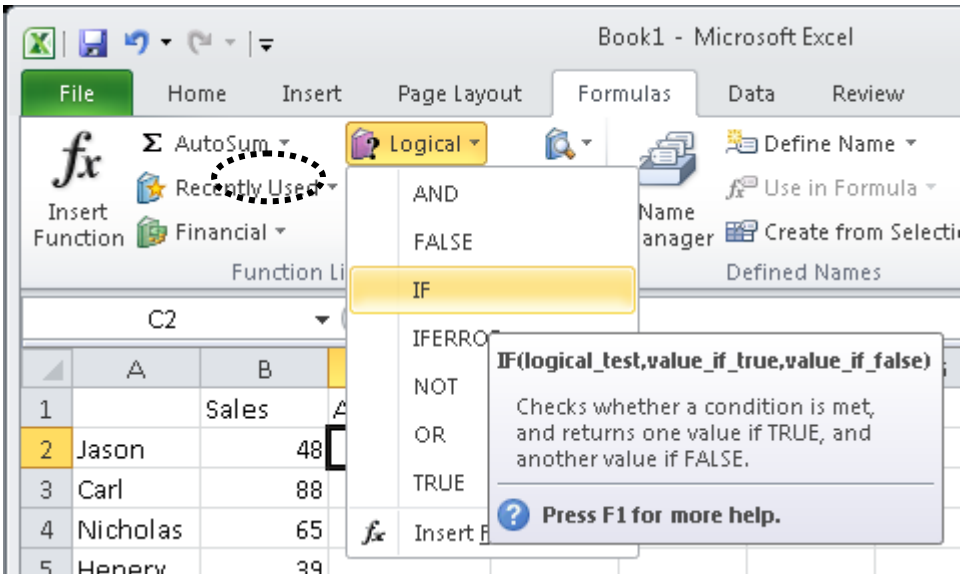
	A	B	C
1		Sales	Assessment
2	Jayson	48	
3	Carl	88	
4	Nicholas	65	
5	Henry	39	
6	Scott	70	

IF the sales > 45
say "PASS"
ELSE "FAILED"

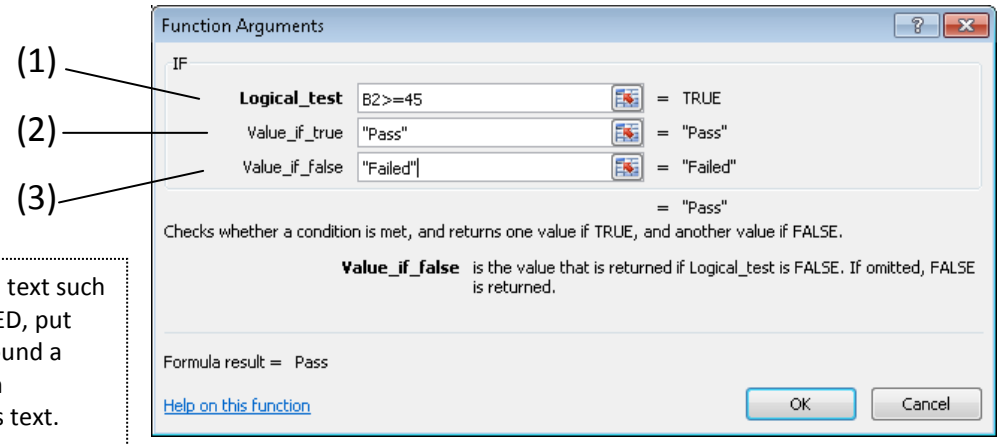
1. Select the cell where your result should go to, e.g. C2

	A	B	C
1		Sales	Assessment
2	Jayson	48	
3	Carl	88	
4	Nicholas	65	
5	Henry	39	
6	Scott	70	

Formulas tab > **Formula Library** Group > **Logical** drop list > Choose **IF**



2. Type logical test and the value for true and false > Click **OK**



Tip: If the value is text such as PASS and FAILED, put speech marks around a word so Excel can recognise that it's text.

(in the assessment cell)	→	C2
IF	→	Use IF statement
Sales item is more than 45	→	(1) C2 >=45
PASS	→	(2) "PASS"
If it's not, FAILED	→	(3) "FAILED"
(display this!)		

If C2 is greater than 45	C2>45
If C2 is greater than or equal to 45	C2>=45
If C2 is less than 45	C2<45
If C2 is less than or equal to 45	C2<=45
If C2 is equal to 45	C2=45

3. The first cell is done (C2)

	A	B	C
1		Sales	Assessment
2	Jason	48	Pass
3	Carl	88	
4	Nicholas	65	
5	Henery	39	
6	Scott	70	

4. Use **fill handle** to apply the IF statement for the rest of cells.

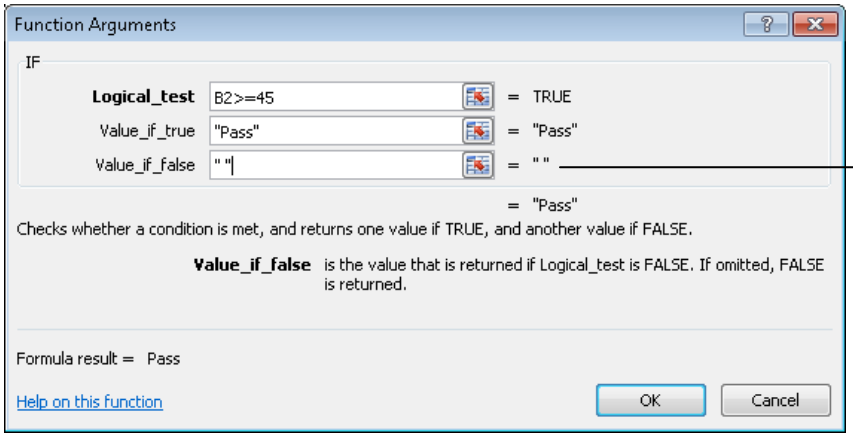
	A	B	C
1		Sales	Assessment
2	Jason	48	Pass
3	Carl	88	Pass
4	Nicholas	65	Pass
5	Henery	39	Failed
6	Scott	70	Pass
7			

Displaying a blank cell with IF statement

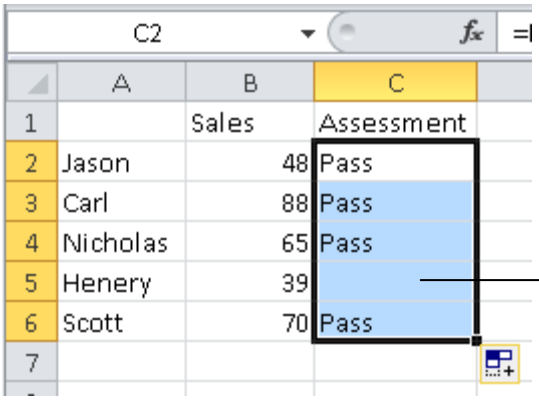
In the previous example, the assessment cell displays either “PASS” or “FAILED”. However, if the result is “FAILED”, it would look simpler to show the cell empty.

(in the assessment cell)	→	C2
IF	→	Use IF statement
Sales item is more than 45	→	(1) C2 >=45
PASS	→	(2) “PASS”
If it’s not, show empty cell. (display this!)	→	(3) “ ”

Use double quotations for the false argument.



The result



Notice: C5 is empty because the value is less than 45. It is “FAILED”.

Nested IF statements

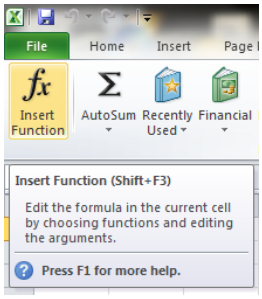
It is possible to nest multiple IF functions within one Excel formula. You can nest up to 7 IF functions to create a complex IF THEN ELSE statement.

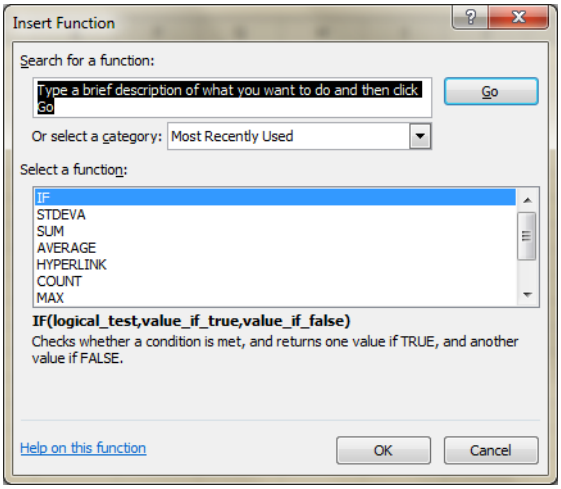
The syntax for the nesting the IF function is:

IF(condition1, value_if_true1, IF(condition2, value_if_true2, value_if_false2))

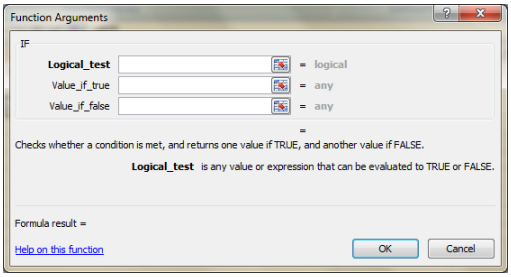
This would be equivalent to the following IF THEN ELSE statement:

```
IF condition1 THEN
   value_if_true1
ELSEIF condition2 THEN
   value_if_true2
ELSE
   value_if_false2
END IF
```



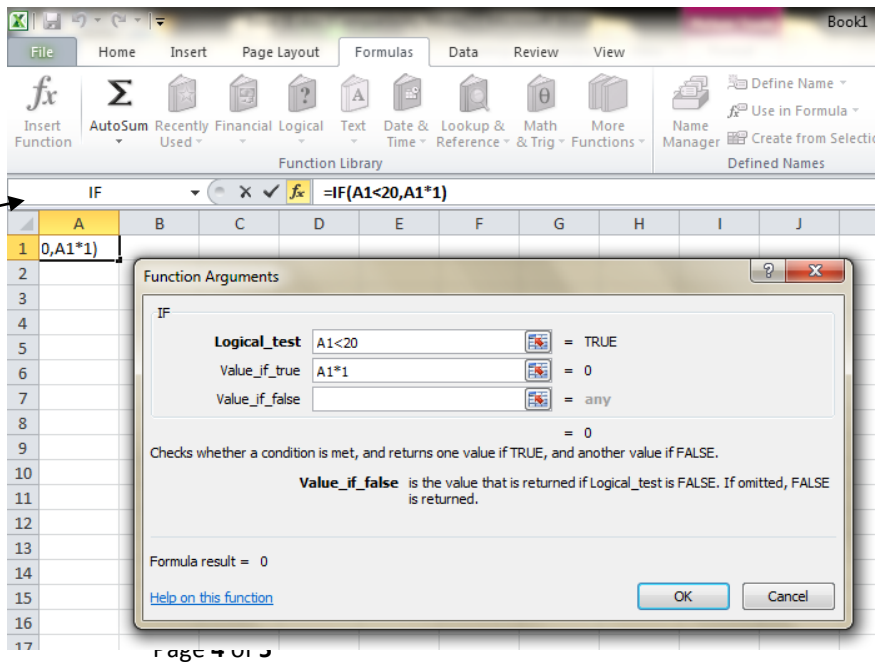


1. Click on Insert Function
2. Type IF in the search box
3. Select the IF function



4. Enter the Logical test
5. Enter the Value if true
6. Instead entering the Value if false to end the IF statement Continue the IF statement by clicking on IF function on the formula bar.

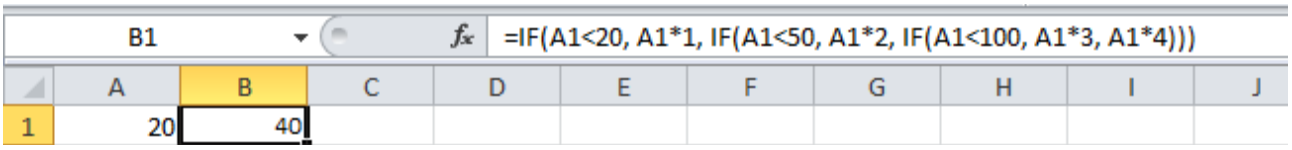
6. Click here to continue the IF statement. This will clear the "function Arguments" window in order to continue the IF statement.



Example of a nested IF statement

Question: In Excel, I need to write a formula that works this way:

If (cell A1) is less than 20, then multiply by 1,
If it is greater than or equal to 20 but less than 50, then multiply by 2
If it is greater than or equal to 50 and less than 100, then multiply by 3
And if it is great or equal to than 100, then multiply by 4

Answer: You can write a nested IF statement to handle this. For example:

=IF(A1<20, A1*1, IF(A1<50, A1*2, IF(A1<100, A1*3, A1*4)))