

# ***EXCEL:***

## ***SESSION 5***

### ***IF Functions***

# ***IF Functions***

## ***Important Because . . .***

- Allows user to make comparisons between what is expected against a variable.
- Logical formula that if the criteria is true gives a specified response and another response if the criteria is false.
- Can be nested to use several comparisons for one output.
- IF Functions can be used with numbers, texts, & formulas

# IF Functions in this Session:

1. IF Function equals a “Text”, print that text



***Section I***  
***IF Function equals a “Text”,***  
***print that text***

# IF Function – Text

Client Data for 2018; want to see all Computer Equipment



INVOICE DATE	Vendor	Vendor Number	INVOICE	PO	Check #	Acct Code	Acct Description	Dept Code	Dept Description	Account Order	Voucher #	VOUCHER DATE	PERIOD	YEAR	TYPE	STATUS	AMOUNT
01/01/18	Newton Acme	12568	3105		0	4758052	BOARD & COMMISSION MEMBERS	7101	Main Office	26761	36704	02/05/18	1	2018	INV	P	\$ 351.00
07/18/18	Newton Acme	12568	94737PULSE		0	4747385	BOARD & COMMISSION MEMBERS	7101	Main Office	26761	36704	02/05/18	1	2018	INV	P	\$ 351.00
07/31/18	Newton Acme	12568	14105		0	4749602											
07/31/18	Newton Acme	12568	19568-32		0	4747806											
07/31/18	Newton Acme	12568	123807		0	4756694											
07/31/18	Newton Acme	12568	82894313		0	4756694											
08/09/18	Newton Acme	12568	AB84968		0	4748739											
08/23/18	Newton Acme	12568	32430		0	8810589											
08/27/18	Newton Acme	12568	V11342		0	8810400											
09/05/18	Newton Acme	12568	7711		0	4749917											
09/08/18	Newton Acme	12568	564688		0	4750278											
09/13/18	Newton Acme	12568	1931	20180262	0	8811216											
09/18/18	Newton Acme	12568	53467	20181072	0	8810906											

INVOICE DATE	Vendor	Vendor Number	INVOICE	PO	Check	Acct Code	Acct Description	Dept Code	Dept Description
01/01/18	Newton Acme	12568	3105		0	4758052	BOARD & COMMISSION MEMBERS	7101	Main Office
01/01/18	Newton Acme	12568	K-1525		0	4758013	508007 COMPUTER EQUIPMENT	3401	Boston
01/01/18	Newton Acme	12568	TTR07765		0	4758080	505505 EMPLOYEE TRAINING	1219	Extra Training
01/01/18	Newton Acme	12568	46956		0	4758077	505505 EMPLOYEE TRAINING	1219	Extra Training
01/01/18	Newton Acme	12568	P4925601614		0	4764820	508002 FURNITURE & FIXTURES	2103	New York
01/01/18	Newton Acme	12568	si-0033483	20180063	0	8813334	505401 LEASE/RENT EQUIPMENT	1215	Cleveland
01/01/18	Newton Acme	12568	C7484 81470		0	4758254	506001 OFFICE SUPPLIES	1201	Chicago
01/01/18	Newton Acme	12568	PO4019867160		0	4758014	506001 OFFICE SUPPLIES	1201	Chicago
01/01/18	Newton Acme	12568	PO4019873700		0	4758078	606001 OFFICE SUPPLIES DESK	61100	Chicago

Sort A to Z  
Sort Z to A

Sort by Color >

Clear Filter From "Acct Description"

Filter by Color >

Text Filters >

Search

- (Select All)
- BOARD & COMMISSION MEMBE
- COMPUTER EQUIPMENT**
- ELECTRICAL SERVICES
- EMPLOYEE TRAINING
- FURNITURE & FIXTURES
- HEATING SERVICES
- LEASE/RENT EQUIPMENT

OK Cancel

Last session, we saw how to filter a spreadsheet by columns. By filtering by Computer Equipment, we would only see the lines that have Computer Equipment in column H. Notice the row #s

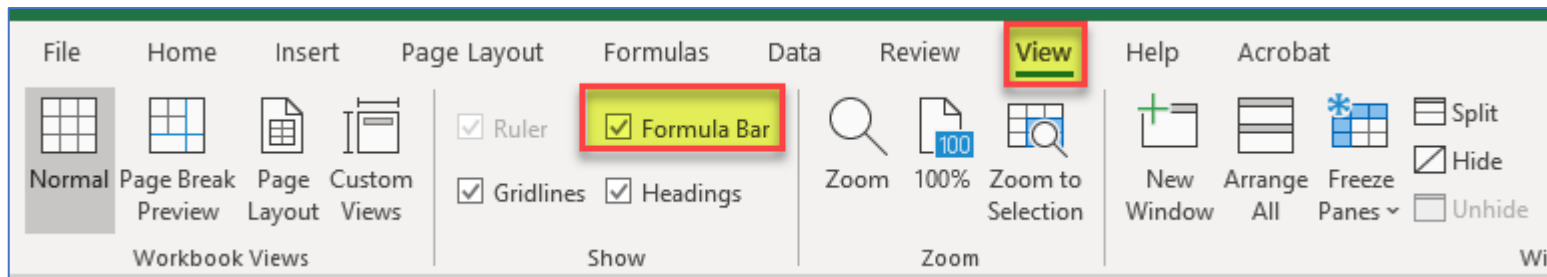
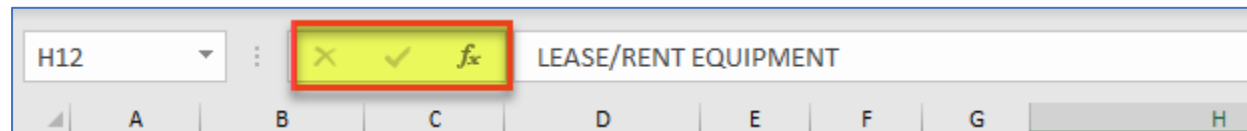
INVOICE DATE	Vendor	Vendor Number	INVOICE	PO	Check	Acct Code	Acct Description	Dept Code	Dept Description	AMOUNT
01/01/18	Newton Acme	12568	K-1525		0	4758013	COMPUTER EQUIPMENT	3401	Boston	\$ 187.00
01/05/18	Newton Acme	12568	95791		0	4758297	COMPUTER EQUIPMENT	3401	Boston	\$ 100.00
01/05/18	Newton Acme	12568	1020031018		0	8813913	COMPUTER EQUIPMENT	1220	Chicago Area	\$ 68.36
12/07/18	Newton Acme	12568	24004-FWKS		0	8813552	COMPUTER EQUIPMENT	3400	Atlanta	\$ 420.00
12/07/18	Newton Acme	12568	si-002769327708	20180440	0	8813036	COMPUTER EQUIPMENT	3401	Boston	\$ 311.15
12/07/18	Newton Acme	12568	1020031273		0	4757077	COMPUTER EQUIPMENT	3403	Cleveland	\$ 171.33
12/08/18	Newton Acme	12568	677481DEAS-1		0	4757063	COMPUTER EQUIPMENT	3403	Cleveland	\$ 22.61
12/08/18	Newton Acme	12568	53480880		0	4757089	COMPUTER EQUIPMENT	3403	Cleveland	\$ 20.00

## IF Function – Text

If we want to see which lines there are for Computer Equipment while also still being able to view all lines of the data, IF Function would be a better choice.

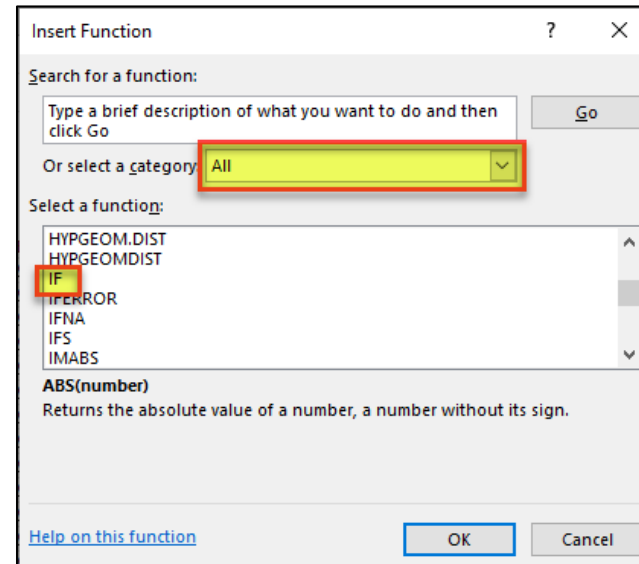
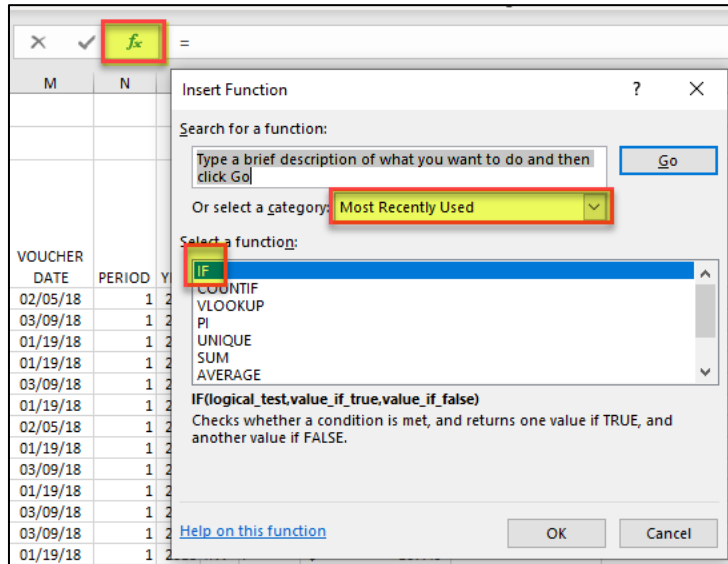
By setting up an IF Function in a separate column, a user can view information while still having access to the full set of data.

- To start make sure all filters are disabled.
- Check to see that the *fx* box on your screen.
- If not go to View Ribbon and select Formula Bar



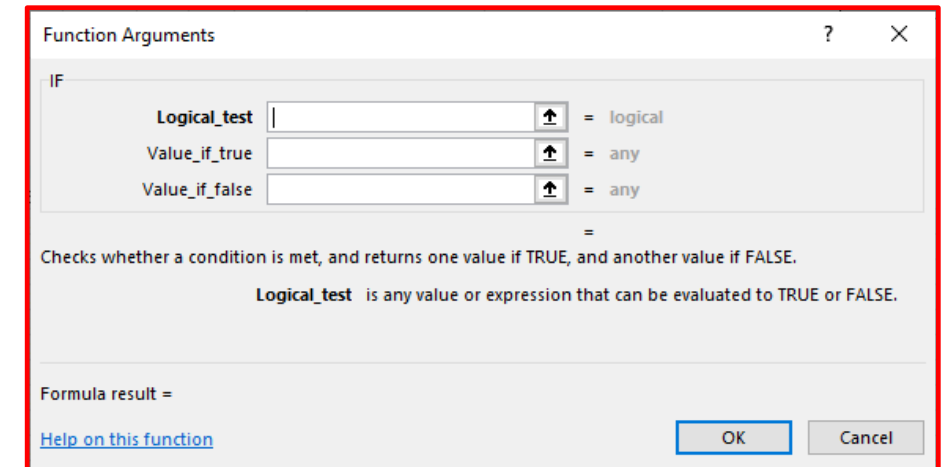
## IF Function – Text

- Click on the *fx* formula line
- A box will pop open.
- Either select from the most Recently Used
- Or from All
- Find IF and select it
- This opens the Function Argument



The Function Argument walks you through each function or formula. Reading this screen is the key to successful results.

A function can be typed into a cell, but until you are comfortable, using the Function Argument is a Best Practice



## IF Function – Text

Now that we know where to get the Function Argument box for IF functions, select the cell you want to locate the formula.

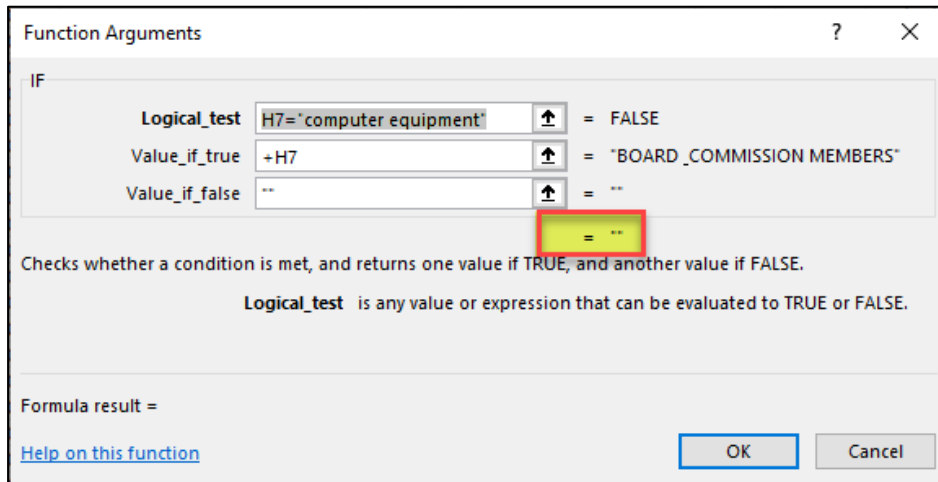
- Position our cursor in cell S7
- Select the *fx* to open the function box for IF

For this example we want to see if there is the word “Computer Equipment” is in Column H and if it is, we want it to show up in Column S so we can see it easily.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
4																			
5																			1a, 1b
6	INVOICE DATE	Vendor	Vendor Number	INVOICE	PO	Check #	Acct Code	Acct Description	Dept Code	Dept Description	Account Order	Voucher #	VOUCHER DATE	PERIOD	YEAR	TYPE	STATUS	AMOUNT	IF Acct =Computer Equipment
7	01/01/18	Newton Acme	12568	3105	0	4758052	501811	BOARD & COMMISSION MEMBERS	7101	Main Office	26761	36704	02/05/18	7101	2018	INV	P	\$ 351.00	
8	01/01/18	Newton Acme	12568	K-1525	0	4758013	508007	COMPUTER EQUIPMENT	3401	Boston	26744	36684	03/09/18	1	2018	INV	P	\$ 187.00	
9	01/01/18	Newton Acme	12568	TTR07765	0	4758080	505505	EMPLOYEE TRAINING	1219	Extra Training	26773	36716	01/19/18	1	2018	INV	P	\$ 54.00	
10	01/01/18	Newton Acme	12568	46956	0	4758077	505505	EMPLOYEE TRAINING	1219	Extra Training	26784	36728	01/19/18	1	2018	INV	P	\$ 348.00	
11	01/01/18	Newton Acme	12568	P4925601614	0	4764820	508002	FURNITURE & FIXTURES	2103	New York	50624	330079	03/09/18	1	2018	INV	P	\$ 2,670.00	
12	01/01/18	Newton Acme	12568	si-0033483	20180063	8813334	505401	LEASE/RENT EQUIPMENT	1215	Cleveland	29467	39364	01/19/18	1	2018	INV	P	\$ 180.50	
13	01/01/18	Newton Acme	12568	C7484 81470	0	4758254	506001	OFFICE SUPPLIES	1201	Chicago	27409	37314	02/05/18	1	2018	INV	P	\$ 18.50	
14	01/01/18	Newton Acme	12568	PO4019867160	0	4758014	506001	OFFICE SUPPLIES	1201	Chicago	26774	36717	01/19/18	1	2018	INV	P	\$ 465.00	
15	01/01/18	Newton Acme	12568	PO4019873700	0	4758078	606001	OFFICE SUPPLIES DESK	61100	Chicago	26785	36729	03/09/18	1	2018	INV	P	\$ 568.00	



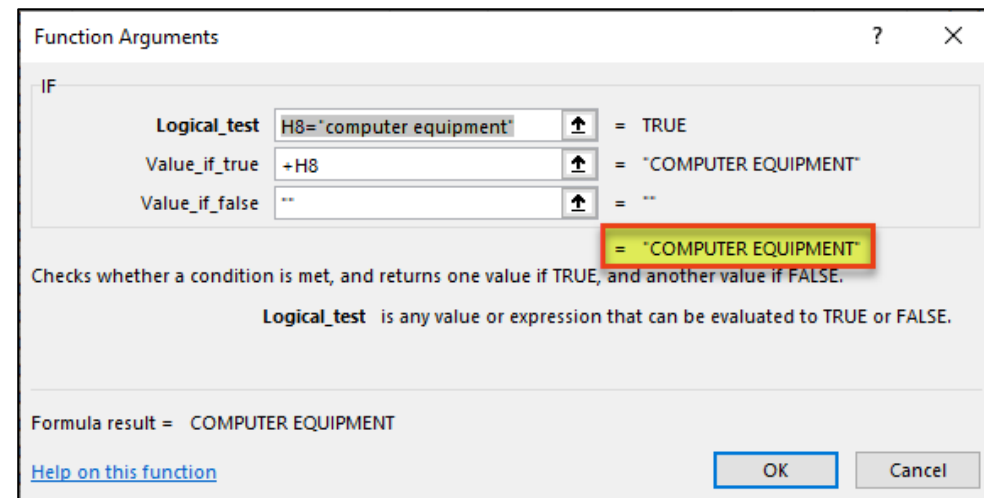
## IF Function – Text



- Logical test is if **H7 = “computer equipment”**; doesn’t have to be case sensitive, but if its text it needs quotation marks.
- If the logical test is true, the contents of cell **+H7** will be entered in the cell.
- If the logical test is false, then **“”** which means empty/blank/vacant will be showing in the cell.

The Function Argument also gives you tips as you enter the arguments on what will show given the logical test and values. For H7, it shows its not Computer Equipment and the cell will show “” or blank.

If you enter this on line 8, the results will be different. Excel know when you copy a formula down that you want to use the next lines data.

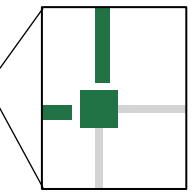


# IF Function – Text



INVOICE DATE	Vendor	Vendor Number	INVOICE	PO	Check #	Acct Code	Acct Description	Dept Code	Dept Description	Account Order	Voucher #	VOUCHER DATE	PERIOD	YEAR	TYPE	STATUS	AMOUNT	IF Acct =Computer Equipment
01/01/18	Newton Acme	12568	3105		0	4758052	501811 BOARD & COMMISSION MEMBERS	7101	Main Office	26761	36704	02/05/18	1	2018	INV	P	\$ 351.00	
01/01/18	Newton Acme	12568	K-1525		0	4758013	508007 COMPUTER EQUIPMENT	3401	Boston	26744	36684	03/09/18	1	2018	INV	P	\$ 187.00	COMPUTER EQUIPMENT
01/01/18	Newton Acme	12568	TTR07765		0	4758080	505505 EMPLOYEE TRAINING	1219	Extra Training	26773	36716	01/19/18	1	2018	INV	P	\$ 54.00	
01/01/18	Newton Acme	12568	46956		0	4758077	505505 EMPLOYEE TRAINING	1219	Extra Training	26784	36728	01/19/18	1	2018	INV	P	\$ 348.00	
01/01/18	Newton Acme	12568	P4925601614	20180063	0	4764820	508002 FURNITURE & FIXTURES	2103	New York									
01/01/18	Newton Acme	12568	si-0033483	20180063	8813334	505401	LEASE/RENT EQUIPMENT	1215	Cleveland									
01/01/18	Newton Acme	12568	C7484 81470		0	4758254	506001 OFFICE SUPPLIES	1201	Chicago									
01/04/18	Newton Acme	12568	651069		0	4761878	503301 REPAIRS & MAINTENANCE	2107	Alarms	40383	320103	02/08/18	1	2018	INV	P	\$ 263.00	
01/05/18	Newton Acme	12568	95791		0	4758297	508007 COMPUTER EQUIPMENT	3401	Boston	27317	37217	03/13/18	1	2018	INV	P	\$ 100.00	COMPUTER EQUIPMENT
01/05/18	Newton Acme	12568	1020031018		0	8813913	508007 COMPUTER EQUIPMENT	1220	Chicago Area	33915	313652	01/23/18	1	2018	INV	P	\$ 68.36	COMPUTER EQUIPMENT
01/05/18	Newton Acme	12568	78764RA		0	4758516	506001 OFFICE SUPPLIES	1211	Boston	28428	38368	01/23/18	1	2018	INV	P	\$ 441.91	
01/05/18	Newton Acme	12568	13384		0	4758302	506001 OFFICE SUPPLIES	1101	Chicago	27319	37219	02/09/18	1	2018	INV	P	\$ 100.00	
01/05/18	Newton Acme	12568	CorpB-59909		0	4758149	506014 OTHER OPERATING SUPPLIES	1302	New York	27506	37402	12/31/17	1	2018	INV	P	\$ 35.00	
01/05/18	Newton Acme	12568	i353853		0	3.92E+08	506014 OTHER OPERATING SUPPLIES	1302	New York	28024	37927	01/23/18	1	2018	DIR	P	\$ 27,968.10	
01/05/18	Newton Acme	12568	CorpB-70954		0	4758314	505201 POSTAGE	2201	Operations	27331	37237	03/13/18	1	2018	INV	P	\$ 100.00	
01/05/18	Newton Acme	12568	37670		0	8813070	505504 PROFESSIONAL DEVELOPMENT	1201	Chicago	28174	38113	02/09/18	1	2018	INV	P	\$ 147.00	
01/05/18	Newton Acme	12568	70043IDEAS-1		0	4758407	503100 PROFESSIONAL SERVICES	1402	Training	28551	38492	01/23/18	1	2018	INV	P	\$ 31.50	
01/05/18	Newton Acme	12568	TTR04706		0	4758313	503301 REPAIRS & MAINTENANCE	1220	Electrical	27330	37236	01/23/18	1	2018	INV	P	\$ 100.00	
01/05/18	Newton Acme	12568	56113SOUND	20180249	0	8813783	503301 REPAIRS & MAINTENANCE	1220	Electrical	33081	312856	01/23/18	1	2018	INV	P	\$ 184.01	
01/05/18	Newton Acme	12568	16991		0	8812965	503301 REPAIRS & MAINTENANCE	3103	Plumbing	27566	37463	01/23/18	1	2018	INV	P	\$ 182.09	
01/05/18	Newton Acme	12568	1722808626		0	4758171	505103 WATER & SEWER SERVICES	3302	New York	26810	36754	01/23/18	1	2018	INV	P	\$ 61.05	
01/07/18	Newton Acme	12568	226901		0	4760297	603301 REPAIRS & MAINTENANCE	62110	Cleveland	35795	315496	01/25/18	1	2018	INV	P	\$ 97.50	
01/08/18	Newton Acme	12568	222871	20180158	8813176	508007	COMPUTER EQUIPMENT	3203	New York	29280	39196	01/26/18	1	2018	INV	P	\$ 80.00	COMPUTER EQUIPMENT
01/08/18	Newton Acme	12568	39499		0	4758272	505101 ELECTRICAL SERVICES	4203	Atlanta	27466	37360	01/26/18	1	2018	INV	P	\$ 11.79	

Using the box, the right bottom corner of the cell, drag the formula, copy down for the column.

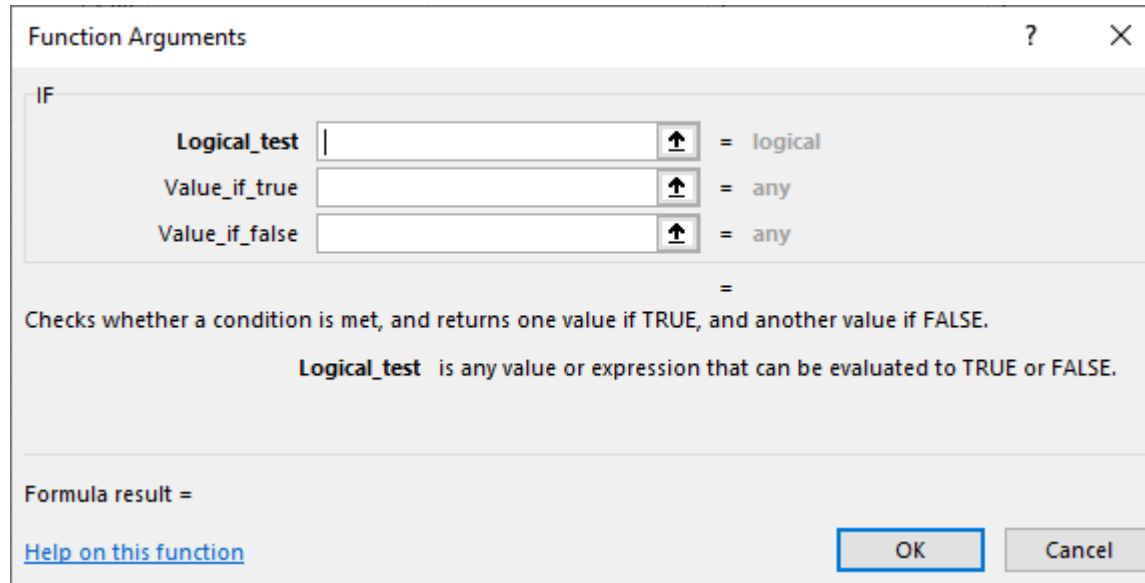


# *Conclusion*

There are many ways to use formulas, the IF formula is one of the most used when working in Excel.

This session showed the most common and the best practice for some.

Use the function box, when possible, it makes using formulas easier.



The image shows the 'Function Arguments' dialog box for the IF function in Microsoft Excel. The dialog box has a title bar with a question mark and a close button. The main area is titled 'IF' and contains three input fields: 'Logical\_test', 'Value\_if\_true', and 'Value\_if\_false'. Each field has a small icon to its right. Below the input fields, there is a description of the function: 'Checks whether a condition is met, and returns one value if TRUE, and another value if FALSE.' and a note: 'Logical\_test is any value or expression that can be evaluated to TRUE or FALSE.' At the bottom, there is a 'Formula result =' field, a 'Help on this function' link, and 'OK' and 'Cancel' buttons.

Argument	Type
Logical_test	logical
Value_if_true	any
Value_if_false	any

Checks whether a condition is met, and returns one value if TRUE, and another value if FALSE.

**Logical\_test** is any value or expression that can be evaluated to TRUE or FALSE.

Formula result =

[Help on this function](#) OK Cancel

*The End*

***Questions?***

***Comments?***