



HOW IF FORMULAS WORK IN EXCEL

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Table of Contents

How IF Formulas work in MS Excel	2
Step 1: What is an IF Function.	2
Step 2: Creating IF functions.	2
Table of Figures	5



How IF Formulas work in MS Excel

MS Excel is a very powerful tool that comes with MS 365 and all Microsoft Office products. Excel allows users to format, analyse and run calculations on data through a spreadsheet. In this guide we will take a look at how the IF function works and how the output will look within the worksheet.

Step 1: What is an IF Function.

The IF function is one of the most popular formulas that is used within Excel, the way the formula works is by checking a value against a condition and returning a result, for example the result can be set to true or false.

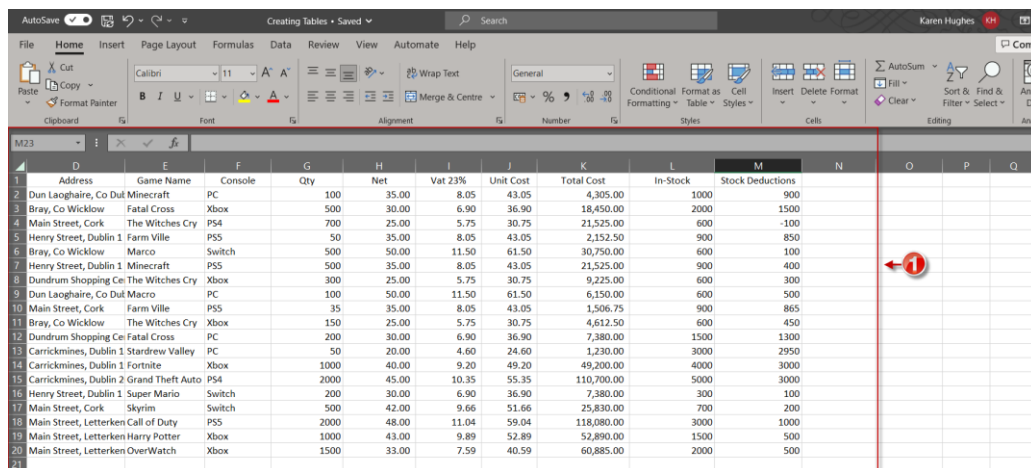
=IF(something is true, then do something, or do something else)

or

=IF(logical_test, value_if_true, value_if_false)

A worksheet has been created on based on popular games available using prices and stock within a company. In this example we will run different IF functions and see the results of each functions.

1. Worksheet used in the guide shown in *figure 1*.

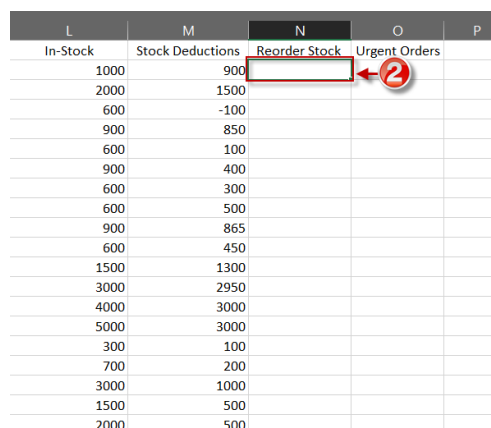


	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
	Address	Game Name	Console	Qty	Net	Vat 23%	Unit Cost	Total Cost	In-Stock	Stock Deductions				
2	Dun Laoghaire, Co Dub	Minecraft	PC	100	35.00	8.05	43.05	4,305.00	1000	900				
3	Bray, Co Wicklow	Fatal Cross	Xbox	500	30.00	6.90	36.90	18,450.00	2000	1500				
4	Main Street, Cork	The Witches Cry	PS4	700	25.00	5.75	30.75	21,525.00	600	-100				
5	Henry Street, Dublin 1	Farm Ville	PS5	50	35.00	8.05	43.05	2,152.50	900	850				
6	Bray, Co Wicklow	Marco	Switch	500	50.00	11.50	61.50	30,750.00	600	100				
7	Henry Street, Dublin 1	Minecraft	PS5	500	35.00	8.05	43.05	21,525.00	900	400				
8	Dundrum Shopping Ce	The Witches Cry	Xbox	300	25.00	5.75	30.75	9,225.00	600	300				
9	Dun Laoghaire, Co Dub	Macro	PC	100	50.00	11.50	61.50	6,150.00	600	500				
10	Main Street, Cork	Farm Ville	PS5	35	35.00	8.05	43.05	1,506.75	900	865				
11	Bray, Co Wicklow	The Witches Cry	Xbox	150	25.00	5.75	30.75	4,612.50	600	450				
12	Dundrum Shopping Ce	Fatal Cross	PC	200	30.00	6.90	36.90	7,380.00	1500	1300				
13	Carrickmines, Dublin 1	Stardew Valley	PC	50	20.00	4.60	24.60	1,230.00	3000	2950				
14	Carrickmines, Dublin 1	Fortnite	Xbox	1000	40.00	9.20	49.20	49,200.00	4000	3000				
15	Carrickmines, Dublin 2	Grand Theft Auto	PS4	2000	45.00	10.35	55.35	110,700.00	5000	3000				
16	Henry Street, Dublin 1	Super Mario	Switch	200	30.00	6.90	36.90	7,380.00	300	100				
17	Main Street, Cork	Skyrim	Switch	500	42.00	9.66	51.66	25,830.00	700	200				
18	Main Street, Letterken	Call of Duty	PS5	2000	48.00	11.04	59.04	118,080.00	3000	1000				
19	Main Street, Letterken	Harry Potter	Xbox	1000	43.00	9.89	52.89	52,890.00	1500	500				
20	Main Street, Letterken	OverWatch	Xbox	1500	33.00	7.59	40.59	60,885.00	2000	500				

Figure 1: Worksheet used in guide.

Step 2: Creating IF functions.

2. Click in the cell where you want to place the formula.



L	M	N	O	P
In-Stock	Stock Deductions	Reorder Stock	Urgent Orders	
1000	900			
2000	1500			
600	-100			
900	850			
600	100			
900	400			
600	300			
600	500			
900	865			
600	450			
1500	1300			
3000	2950			
4000	3000			
5000	3000			
300	100			
700	200			
3000	1000			
1500	500			
2000	500			

Figure 2: Blank Cell



3. Type the IF functions example =IF(



Please note: It is important to type the IF in capitals and have the open bracket at the beginning and close the bracket and the end.

L	M	N	O	P
In-Stock	Stock Deductions	Reorder Stock	Urgent Orders	
1000	900	=IF(		
2000	1500	IF(logical_test, [value_if_true], [value_if_false])		
600	-100			
900	850			
600	100			
900	400			
600	300			
600	500			
900	865			
600	450			
1500	1300			
3000	2950			
4000	3000			
5000	3000			
300	100			
700	200			
3000	1000			
1500	500			
2000	500			

Figure 3: Start IF function.

4. For this IF function type =IF(M2<=500, "Order Stock", "In Stock")

	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
	Company Name	Address	Game Name	Console	Qty	Net	Vat 23%	Unit Cost	Total Cost	In-Stock	Stock Deductions	Reorder Stock	Urgent Orders		
2	GameUp Ireland	Dun Laoghaire, Co Du	Minecraft	PC	100	35.00	8.05	43.05	4,305.00	1000	900	"In Stock"			
3	Game Stop	Bray, Co Wicklow	Fatal Cross	Xbox	500	30.00	6.90	36.90	18,450.00	2000	1500				
4	GameUp Ireland	Main Street, Cork	The Witches Cry	PS4	700	25.00	5.75	30.75	21,525.00	600	-100				
5	HMV	Henry Street, Dublin 1	Farm Ville	PSS	50	35.00	8.05	43.05	2,152.50	900	850				
6	Game Stop	Bray, Co Wicklow	Marco	Switch	500	50.00	11.50	61.50	30,750.00	600	100				
7	HMV	Henry Street, Dublin 1	Minecraft	PSS	500	35.00	8.05	43.05	21,525.00	900	400				
8	Golden Discs	Dundrum Shopping Ce	The Witches Cry	Xbox	300	25.00	5.75	30.75	9,225.00	600	300				
9	GameUp Ireland	Dun Laoghaire, Co Du	Macro	PC	100	50.00	11.50	61.50	6,150.00	600	500				
10	GameUp Ireland	Main Street, Cork	Farm Ville	PSS	35	35.00	8.05	43.05	1,506.75	900	865				
11	Game Stop	Bray, Co Wicklow	The Witches Cry	Xbox	150	25.00	5.75	30.75	4,612.50	600	450				
12	Golden Discs	Dundrum Shopping Ce	Fatal Cross	PC	200	30.00	6.90	36.90	7,380.00	1500	1300				
13	Synths Ireland	Carrickmines, Dublin 1	Stardew Valley	PC	50	20.00	4.60	24.60	1,230.00	3000	2950				
14	Synths Ireland	Carrickmines, Dublin 1	Fortnite	Xbox	1000	40.00	9.20	49.20	49,200.00	4000	3000				
15	Synths Ireland	Carrickmines, Dublin 2	Grand Theft Auto	PS4	2000	45.00	10.35	55.35	110,700.00	5000	3000				
16	HMV	Henry Street, Dublin 1	Super Mario	Switch	200	30.00	6.90	36.90	7,380.00	300	100				
17	Game Stop	Main Street, Cork	Skyrim	Switch	500	42.00	9.66	51.66	25,830.00	700	200				
18	Excel Gaming	Main Street, Letterken	Call of Duty	PSS	2000	48.00	11.04	59.04	118,080.00	3000	1000				
19	Excel Gaming	Main Street, Letterken	Harry Potter	Xbox	1000	43.00	9.89	52.89	52,890.00	1500	500				
20	Excel Gaming	Main Street, Letterken	Overwatch	Xbox	1500	33.00	7.95	40.95	60,885.00	2000	500				

Figure 4: Completed IF function.



Please note: It is important to enclose text within inverted commas, and they must have commas in between each command section of our IF function.



5. Let's break down this function.

We are taking the value of 900 in cell M2 and saying if the value is less than or equal to 500 then we need to order more stock, else the company has enough in stock of the product.

L	M	N	O	P
In-Stock	Stock Deductions	Reorder Stock	Urgent Orders	
1000	900	In Stock		
2000	1500	In Stock		
600	-100	Order Stock		
900	850	In Stock		
600	100	Order Stock		
900	400	Order Stock		
600	300	Order Stock		
600	500	Order Stock		
900	865	In Stock		
600	450	Order Stock		
1500	1300	In Stock		
3000	2950	In Stock		
4000	3000	In Stock		
5000	3000	In Stock		
300	100	Order Stock		
700	200	Order Stock		
3000	1000	In Stock		
1500	500	Order Stock		
2000	500	Order Stock		

Figure 5: IF Function Results

Step 3: Other Function that are useful in Excel.

Equal =	Sum function	Max
Greater than >	Vlookup	Median
Greater than or equal to >=	Average	PMT
Less than <	Round	Rate
Less that or equal to <=	RoundDown	And
Not equal <>	INT	Or



Table of Figures

Figure 1: Worksheet used in guide.	2
Figure 2: Blank Cell.....	2
Figure 3: Start IF function.	3
Figure 4: Completed IF function.	3
Figure 5: IF Function Results	4