

What is the purpose of the Excel OR function?

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The Excel OR function is a logical function that is used to evaluate multiple logical expressions and return a TRUE or FALSE result based on whether any of the expressions are TRUE. Its purpose is to simplify complex logical statements and make them more efficient, as it only requires one OR function rather than multiple nested IF statements. This function is commonly used in data analysis and decision making, allowing users to quickly determine if any of the specified conditions are met. It is especially useful in creating dynamic spreadsheets and automating tasks in Excel.

Excel OR Function

OR Function

The **OR** function is a premade function in Excel, which returns **TRUE** or **FALSE** based on two or more **conditions**.

It is typed =OR.

Note: The OR function is often used together with the IF function.

=OR(, , ...)

The **conditions** are referred to as , , and so on.

The conditions can check things like:

If a number is **greater than** another number >

If a number is **smaller than** another number <

If a number or text is **equal** to something =

Note: The different parts of the function are separated by a symbol, like comma , or semicolon ;

The symbol depends on your Language Settings.

Example OR Function

Check if the Pokemon type is water **OR** has defense **greater than** 60:

The function returns "TRUE" or "FALSE".


	A	B	C	D	E
1	Name	Type 1	Defense	Water Type OR more than 60 Defense	
2	Bulbasaur	Grass	49		
3	Ivysaur	Grass	63		
4	Venusaur	Grass	83		
5	Charmander	Fire	43		
6	Charmeleon	Fire	58		
7	Charizard	Fire	78		
8	Squirtle	Water	65		
9	Wartortle	Water	80		
10	Blastoise	Water	100		
11					

Example **OR** function, step by step:

Select the cell **D2**

Type **=OR**

Double click the **OR** command

	A	B	C	D	E	F	G	H	I
1	Name	Type 1	Defense	Water Type OR more than 60 Defense					
2	Bulbasaur	Grass	49	=OR					
3	Ivysaur	Grass	63	 OR	Checks whether any of the arguments are TRUE, and returns TRUE or FALSE. Returns FALSE only if all arguments are FALSE				
4	Venusaur	Grass	83						
5	Charmander	Fire	43						
6	Charmeleon	Fire	58						
7	Charizard	Fire	78						
8	Squirtle	Water	65						
9	Wartortle	Water	80						
10	Blastoise	Water	100						
11									

Specify the first condition **B2="Water"**

Type **,**

Specify the second condition **C2>60**

Hit enter

Note: You can add more conditions by repeating steps 5-6 before hitting enter.

	A	B	C	D	E
1	Name	Type 1	Defense	Water Type OR more than 60 Defense	
2	Bulbasaur	Grass	49	=OR(B2="Water"; C2>60)	
3	Ivysaur	Grass	63	OR (logical1; [logical2]; [logical3]; ...)	
4	Venusaur	Grass	83		
5	Charmander	Fire	43		
6	Charmeleon	Fire	58		
7	Charizard	Fire	78		
8	Squirtle	Water	65		
9	Wartortle	Water	80		
10	Blastoise	Water	100		
11					

Since the value in cell B2 is not "Water" the first condition is **FALSE**.

Since the value in cell C2 is less than 60 the second condition is also **FALSE**.

At least one condition need to be **TRUE** for the OR function to return **TRUE**.

Note: Text values needs to be in quotes: " "

The function can be repeated with the filling function for each row to perform the same check for each Pokemon:

	A	B	C	D	E
1	Name	Type 1	Defense	Water Type OR more than 60 Defense	
2	Bulbasaur	Grass	49	=OR(B2="Water"; C2>60)	
3	Ivysaur	Grass	63	=OR(B3="Water"; C3>60)	
4	Venusaur	Grass	83	=OR(B4="Water"; C4>60)	
5	Charmander	Fire	43	=OR(B5="Water"; C5>60)	
6	Charmeleon	Fire	58	=OR(B6="Water"; C6>60)	
7	Charizard	Fire	78	=OR(B7="Water"; C7>60)	
8	Squirtle	Water	65	=OR(B8="Water"; C8>60)	
9	Wartortle	Water	80	=OR(B9="Water"; C9>60)	
10	Blastoise	Water	100	=OR(B10="Water"; C10>60)	
11					

Now, each row has a check for Water Type **or** Defense greater than 60:

	A	B	C	D	E
1	Name	Type 1	Defense	Water Type OR more than 60 Defense	
2	Bulbasaur	Grass	49	FALSE	
3	Ivysaur	Grass	63	TRUE	
4	Venusaur	Grass	83	TRUE	
5	Charmander	Fire	43	FALSE	
6	Charmeleon	Fire	58	FALSE	
7	Charizard	Fire	78	TRUE	
8	Squirtle	Water	65	TRUE	
9	Wartortle	Water	80	TRUE	
10	Blastoise	Water	100	TRUE	
11					

For example:

Ivysaur is **not** Water type, but it has **more** than 60 defense, so the function returns "TRUE".

Charmeleon is **not** Water type, and has **less** than 60 defense, so the function returns "FALSE"

Wartortle is **both** Water type and has **more** than 60 defense, so the function returns "TRUE"

Example OR Function (with IF)

Combining the OR function with an IF function lets you check **multiple** conditions for the IF function:

Note: The IF function lets you specify the return values.

The IF function is typed `=IF` and has 3 parts:

`=IF(logical_test, ,)`

The OR function takes the place of the `logical_test` condition.

Here, the **IF** function returns "Yes" or "No".

Example **OR** function as the condition for **IF** function, step by step:

Select cell D2

Type `=IF`

Double click the **IF** command

	A	B	C	D	E	F	G	H	I
1	Name	Type 1	Defense	Water Type OR more than 60 Defense					
2	Bulbasaur	Grass	49	=IF					
3	Ivysaur	Grass	63	<div style="border: 1px solid black; padding: 5px;"> IF Checks whether a condition is met, and returns one value if TRUE, and another value if FALSE IFERROR IFNA IFS </div>					
4	Venusaur	Grass	83						
5	Charmander	Fire	43						
6	Charmeleon	Fire	58						
7	Charizard	Fire	78						
8	Squirtle	Water	65						
9	Wartortle	Water	80						
10	Blastoise	Water	100						
11									

Type **OR**

Double click the **OR** command

	A	B	C	D	E	F	G	H	I
1	Name	Type 1	Defense	Water Type OR more than 60 Defense					
2	Bulbasaur	Grass	49	=IF(OR					
3	Ivysaur	Grass	63	<div style="border: 1px solid black; padding: 5px;"> OR Checks whether any of the arguments are TRUE, and returns TRUE or FALSE. Returns FALSE only if all arguments are FALSE </div>					
4	Venusaur	Grass	83						
5	Charmander	Fire	43						
6	Charmeleon	Fire	58						
7	Charizard	Fire	78						
8	Squirtle	Water	65						
9	Wartortle	Water	80						
10	Blastoise	Water	100						
11									

Specify the first condition `B2="Water"`

Type `,`

Specify the second condition `C2>60`

Type `),`

Specify the value `"Yes"` for when either or both conditions are **TRUE**

Type `,`

Specify the value `"No"` for when both conditions are **FALSE**

Type `)` and hit enter

	A	B	C	D	E	F
1	Name	Type 1	Defense	Water Type OR more than 60 Defense		
2	Bulbasaur	Grass	49	=IF(OR(B2="Water"; C2>60); "Yes"; "No")		
3	Ivysaur	Grass	63			
4	Venusaur	Grass	83			
5	Charmander	Fire	43			
6	Charmeleon	Fire	58			
7	Charizard	Fire	78			
8	Squirtle	Water	65			
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The function can be repeated with the filling function for each row to perform the same check for each Pokemon:

	A	B	C	D	E
1	Name	Type 1	Defense	Water Type OR more than 60 Defense	
2	Bulbasaur	Grass	49	=IF(OR(B2="Water"; C2>60); "Yes"; "No")	
3	Ivysaur	Grass	63	=IF(OR(B3="Water"; C3>60); "Yes"; "No")	
4	Venusaur	Grass	83	=IF(OR(B4="Water"; C4>60); "Yes"; "No")	
5	Charmander	Fire	43	=IF(OR(B5="Water"; C5>60); "Yes"; "No")	
6	Charmeleon	Fire	58	=IF(OR(B6="Water"; C6>60); "Yes"; "No")	
7	Charizard	Fire	78	=IF(OR(B7="Water"; C7>60); "Yes"; "No")	
8	Squirtle	Water	65	=IF(OR(B8="Water"; C8>60); "Yes"; "No")	
9	Wartortle	Water	80	=IF(OR(B9="Water"; C9>60); "Yes"; "No")	
10	Blastoise	Water	100	=IF(OR(B10="Water"; C10>60); "Yes"; "No")	
11					

Now, each row has a check for Water Type **or** Defense greater than 60:

	A	B	C	D	E
1	Name	Type 1	Defense	Water Type OR more than 60 Defense	
2	Bulbasaur	Grass	49	No	
3	Ivysaur	Grass	63	Yes	
4	Venusaur	Grass	83	Yes	
5	Charmander	Fire	43	No	
6	Charmeleon	Fire	58	No	
7	Charizard	Fire	78	Yes	
8	Squirtle	Water	65	Yes	
9	Wartortle	Water	80	Yes	
10	Blastoise	Water	100	Yes	
11					

For example:

Ivysaur is **not** Water type, but it has **more** than 60 defense, so the function returns "Yes".

Charmeleon is **not** Water type, and has **less** than 60 defense, so the function returns "No"

Wartortle is **both** Water type and has **more** than 60 defense, so the function returns "Yes"

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