

How can I create an OR function in Excel?

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The OR function in Excel allows users to check if at least one of the conditions provided is true. To create an OR function in Excel, the user can use the logical operator "OR" followed by the list of conditions enclosed in parentheses. The function will return a TRUE value if any of the conditions are met, and a FALSE value if none of the conditions are met. This function is useful for data analysis and decision making in Excel.

Use the **OR** function, one of the logical functions, to determine if any conditions in a test are TRUE.

Example

	A	B	C
1	Formula	Description	Result
2	=OR(TRUE,TRUE)	All arguments are TRUE	TRUE
3	=OR(TRUE,FALSE)	One argument is FALSE	TRUE
4	=OR(1=1,2=2,3=3)	All arguments are TRUE	TRUE
5	=OR(1=2,2=3,3=4)	All arguments are FALSE	FALSE

The **OR** function returns TRUE if any of its arguments evaluate to TRUE, and returns FALSE if all of its arguments evaluate to FALSE.

One common use for the **OR** function is to expand the usefulness of other functions that perform logical tests. For example, the **IF** function performs a logical test and then returns one value if the test evaluates to TRUE and another value if the test evaluates to FALSE. By using the **OR** function as the logical_test argument of the **IF** function, you can test many different conditions instead of just one.

Syntax

OR(logical1, , ...)

The **OR** function syntax has the following arguments:

Argument	Description
Logical1	Required. The first condition that you want to test that can evaluate to either TRUE or FALSE.
Logical2, ...	Optional. Additional conditions that you want to test that can evaluate to either TRUE or FALSE, up to a maximum of 255 conditions.

Remarks

The arguments must evaluate to logical values such as TRUE or FALSE, or in arrays or references that contain logical values.

If an array or reference argument contains text or empty cells, those values are ignored.

If the specified range contains no logical values, **OR** returns the #VALUE! error value.

You can use an **OR** array formula to see if a value occurs in an array. To enter an array formula, press CTRL+SHIFT+ENTER.

Examples

Here are some general examples of using **OR** by itself, and in conjunction with **IF**.

	A	B	C	D	E
1	Values				
2	50				
3	100				
4					
5	Formula	Result			Result
6	=OR(A2>1,A2<100)				TRUE
7	=IF(OR(A2>1,A2<100),A3,"The value is out of range")				100
8	=IF(OR(A2<0,A2>50),A2,"The value is out of range")				The value is out of range

Formula	Description
=OR(A2>1,A2<100)	Displays TRUE if A2 is greater than 1 OR less than 100, otherwise it displays FALSE.
=IF(OR(A2>1,A2<100),A3,"The value is out of range")	Displays the value in cell A3 if it is greater than 1 OR less than 100, otherwise it displays the message "The value is out of range".
=IF(OR(A2<0,A2>50),A2,"The value is out of range")	Displays the value in cell A2 if it's less than 0 OR greater than 50, otherwise it displays a message.

Sales Commission Calculation

Here is a fairly common scenario where we need to calculate if sales people qualify for a commission using **IF** and **OR**.

D14					=IF(OR(B14>=\$B\$4,C14>=\$B\$5),B14*\$B\$6,0)
	A	B	C	D	E
1	Goals				
3	Criteria	Amount			
4	Sales Goal:	\$8,500			
5	Account Goal:	5			
6	Commission Rate:	2.0%			
7	Bonus Goal:	\$12,500			
8	Bonus %:	1.5%			
9					
10	Commisson Calculations with Conditions				
12	Salesperson	Total Sales	Accounts	Commission	Bonus
13	Millicent Shelton	\$10,260	9	\$205	
14	Miguel Ferrari	\$15,700	7	\$314	\$236
15	Claire Fox	\$13,275	5	\$266	\$199
16	Rosemarie Cobb	\$9,100	3	\$182	
17	Lorie Chen	\$7,480	4		
18					

=IF(OR(B14>=\$B\$4,C14>=\$B\$5),B14*\$B\$6,0) - IF Total Sales are greater than or equal to (>=) the Sales Goal, **OR** Accounts are greater than or equal to (>=) the Account Goal, then multiply Total Sales by the Commission %, otherwise return 0.

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