

How can I use excel to perform a match function?

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The match function in Excel is a powerful tool that allows users to search for a specific value in a range of cells and return the position of that value. This function can be used to quickly locate and retrieve data within a large dataset. To use the match function, users must first identify the range of cells to search in and the value to be matched. Once these parameters are entered, the function will return the position of the matching value, which can then be used in conjunction with other functions to manipulate data or perform calculations. The match function is a valuable tool for organizing and analyzing data in Excel.

Tip: Try using the new [XMATCH](#) function, an improved version of **MATCH** that works in any direction and returns exact matches by default, making it easier and more convenient to use than its predecessor.

The **MATCH** function searches for a specified item in a range of cells, and then returns the relative position of that item in the range. For example, if the range A1:A3 contains the values 5, 25, and 38, then the formula **=MATCH(25,A1:A3,0)** returns the number 2, because 25 is the second item in the range.



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Tip: Use **MATCH** instead of one of the **LOOKUP** functions when you need the position of an item in a range instead of the item itself. For example, you might use the **MATCH** function to provide a value for the **row_num** argument of the **INDEX** function.

Syntax

MATCH(lookup_value, lookup_array,)

The MATCH function syntax has the following arguments:

lookup_value Required. The value that you want to match in **lookup_array**. For example, when you look up someone's number in a telephone book, you are using the person's name as the lookup value, but the telephone number is the value you want.

The **lookup_value** argument can be a value (number, text, or logical value) or a cell reference to a number, text, or logical value.

lookup_array Required. The range of cells being searched.

match_type Optional. The number -1, 0, or 1. The **match_type** argument specifies how Excel matches **lookup_value** with values in **lookup_array**. The default value for this argument is 1.

The following table describes how the function finds values based on the setting of the **match_type** argument.

Match_type	Behavior
1 or omitted	MATCH finds the largest value that is less than or equal to lookup_value . The values in the lookup_array argument must be placed in ascending order, for example: ...-2, -1, 0, 1, 2, ..., A-Z, FALSE, TRUE.
0	MATCH finds the first value that is exactly equal to lookup_value . The values in the lookup_array argument can be in any order.
-1	MATCH finds the smallest value that is greater than or equal to lookup_value . The values in the lookup_array argument must be placed in descending order, for example: TRUE, FALSE, Z-A, ...2, 1, 0, -1, -2, ..., and so on.

MATCH returns the position of the matched value within **lookup_array**, not the value itself. For example, **MATCH("b",{"a","b","c"},0)** returns 2, which is the relative position of "b" within the array {"a","b","c"}.

MATCH does not distinguish between uppercase and lowercase letters when matching text values.

If **MATCH** is unsuccessful in finding a match, it returns the #N/A error value.

If **match_type** is 0 and **lookup_value** is a text string, you can use the wildcard characters -- the question mark (?) and asterisk (*) -- in the **lookup_value** argument. A question mark matches any single character; an asterisk matches any sequence of characters. If you want to find an actual question mark or asterisk, type a tilde (~) before the character.

Example

Copy the example data in the following table, and paste it in cell A1 of a new Excel worksheet. For formulas to show results, select them, press F2, and then press Enter. If you need to, you can adjust the column widths to see all the data.

Product	Count	
Bananas	25	
Oranges	38	
Apples	40	
Pears	41	
Formula	Description	Result
=MATCH(39,B2:B5,1)	Because there is not an exact match, the position of the next lowest value (38) in the range B2:B5 is returned.	2
=MATCH(41,B2:B5,0)	The position of the value 41 in the range B2:B5.	4
=MATCH(40,B2:B5,-1)	Returns an error because the values in the range B2:B5 are not in descending order.	#N/A

VLOOKUP function

INDEX function