MATCH function

⊞ Show All

This article describes the formula syntax and usage of the **MATCH** function in Microsoft Excel.

Description

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.

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, [match_type])
```

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.

NOTES

- **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

The example may be easier to understand if you copy it to a blank worksheet.

⊞ How do I copy an example?

	A	B	C
1	**Product**	**Count**	
2	Bananas	25	
3	Oranges	38	
4	Apples	40	
5	Pears	41	
6	**Formula**	**Description**	**Result**
7	=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
8	=MATCH (40,B2:B5,-1)	Returns an error because the values in the range B2:B5 are not in descending order.	#N/A
9			

See Also

- Lookup and reference functions (reference)