

How can I use the VLOOKUP function in Excel to find a value that falls within a specified range?

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The VLOOKUP function in Excel is a useful tool for finding a specific value within a specified range of data. This function allows you to search for a particular value in a table or range of cells and return a corresponding value from another column. To use the VLOOKUP function to find a value within a specified range, you will need to enter the function in a cell, specify the lookup value, and define the range of data to search within. The function will then search for the lookup value within the specified range and return the corresponding value from another column. This can be helpful for tasks such as categorizing data or finding a specific value within a large dataset.

Excel: Use VLOOKUP to Find Value That Falls Between Range

You can use the VLOOKUP function in Excel with TRUE as the last argument to look up a value that falls in a range and return the corresponding value in another range.

Note that the VLOOKUP function uses the following basic syntax:

VLOOKUP (lookup_value, table_array, col_index_num,)

where:

lookup_value: The value to look up
table_array: The range of cells to look in
col_index_num: The column number that contains the return value
range_lookup: TRUE = look for approximate match, FALSE = look for exact match

By using a value of TRUE for the last argument, you can look up a value that falls in a range.

The following example shows how to do so in practice.

Example: Use VLOOKUP to Find Value that Falls Between Range

Suppose we have the following dataset in Excel that shows the minimum sales needed by an employee at a company to earn a certain bonus amount:

	A	B	C	D	E
1	Sales	Bonus			
2	0	0			
3	500	25			
4	1000	50			
5	2000	75			
6	5000	100			
7	10000	150			
8					
9					
10					
11					
12					
13					
14					

Here is how to interpret this dataset:

If an employee has $0 < 500$ sales, they earn \$0 as a

bonus. If an employee has $500 < 1,000$ sales, they earn \$25 as a bonus. If an employee has $1,000 < 2,000$ sales, they earn \$50 as a bonus.

And so on.

Suppose we would like to use the VLOOKUP function to look up the value of 870 in the Sales column and return the corresponding amount in the Bonus column.

We can type the following formula into cell E2 to do so:

`=VLOOKUP(E1, A2:B7, 2, TRUE)`

The following screenshot shows how to use this formula in practice:

E2	✓	:	✕ ✓ <i>fx</i>	=VLOOKUP(E1, A2:B7, 2, TRUE)		
	A	B	C	D	E	F
1	Sales	Bonus		Sales	870	
2	0	0		Bonus	25	
3	500	25				
4	1000	50				
5	2000	75				
6	5000	100				
7	10000	150				
8						
9						
10						
11						
12						
13						

Since the exact value of 870 didn't exist in the Sales column, the VLOOKUP function looked for the next largest value in the Sales column that was less than 870.

The formula identified the value of 500 and returned the bonus value that corresponded to this value, which was 25.

	A	B	C	D	E	F	G
1	Sales	Bonus		Sales	870	Lookup value	
2	0	0		Bonus	25		
3	500	25					
4	1000	50					
5	2000	75					
6	5000	100					
7	10000	150					
8							
9							
10							
11							
12							
13							
14							
15							

Next largest value less than lookup value

Note that the values in the Sales column are already sorted from least to greatest, which is why the VLOOKUP function was able to correctly identify the next largest value that was less than the lookup value.

If the first column in your lookup range is not sorted, the VLOOKUP function could return unexpected results.

The following tutorials explain how to perform other common tasks in Excel: