Microsoft Excel
VLOOKUP Refresher

When you use VLOOKUP, you're essentially saying, "Here's a value. Go to another location, find a match for my value, and then show me the words or numbers that reside in a cell that corresponds to that matching value." If it helps, think of that third value (col_index_num) as your search result. The first three arguments for VLOOKUP are required; the last one is optional, but defaults to TRUE if you leave it out.

VLOOKUP(lookup_value, table_array, col_index_num, [range_lookup])

Description

What value are you searching for?

This is the lookup value. Excel will look for a match to this value in the leftmost column of your lookup table.

Where do you want to search?

This is the lookup table. If you plan to copy your VLOOKUP formula, you may want to use absolute references to "lock" the range.

Which column contains the search result?

This value will appear in the cell with the VLOOKUP formula. Count over from the first column to figure out what this number should be, starting with 1.

Should the lookup value be an exact match (FALSE or 0) or is an approximate match (TRUE or 1) okay if an exact match doesn't exist?

For TRUE, sort the leftmost column in ascending order for correct results.

Examples

Cell reference
=VLOOKUP(**A2**, $D$2:$G$145, 4, 0)

Text or number
= VLOOKUP(**"DI-328"**, A2:D6, 3, FALSE

= VLOOKUP(**"John Smith"**, A2:D6, 3, FALSE

=VLOOKUP(**0.7**,A2:C10, 3, FALSE)

Range (absolute reference)
=VLOOKUP(A2, **D$2:$G$15**, 4, 0)

Named range
=VLOOKUP(021345, **2010SalesData**, 4, 0)

Sheet reference
=VLOOKUP(A2, **Grades! $D$2:$C$10,** 3, TRUE)

Workbook reference
=VLOOKUP(G2, **[Products.xlsx]Sheet1! $A$2:$C$200**, 3, FALSE)

Number
=VLOOKUP (A2,$D$2:$G$145, **2**, 0)

=VLOOKUP (A2,$D$2:$G$145, **3**, 0)

In the examples shown here, column D is 1, column E is 2, column F is 3, and so on.

Exact match
=VLOOKUP(**"John Smith"**, $D$2:$G$145, 4, **FALSE**)

Exact match
=VLOOKUP(**"John Smith"**, $D$2:$G$145, 4, **0**)

Approximate match
=VLOOKUP(Sales, 2010ComRates, 3, **TRUE**)

Approximate match
=VLOOKUP(Sales, 2010ComRates, 3, **1**)

Approximate match
=VLOOKUP(Sales, 2010ComRates, 3)

VLOOKUP Refresher

Let's look at a VLOOKUP formula in action. Imagine that you have a workbook containing data about your web site. The workbook contains a worksheet called Page Views (with a set of page IDs that uniquely identify each site page and the hits it receives) and another called Pages (with the page IDs and the names of the pages that correspond to each ID). Your goal is to find and display page names that match the page IDs. *For a more detailed explanation of this example, see page 3.*

=VLOOKUP(A2, PAGES!$A$2:$B$39, 2, FALSE)

1 On the **Page Views** worksheet, the VLOOKUP formula in cell B2 tells Excel to take the value in cell A2, switch to the **Pages** worksheet, and locate a match.

The FALSE argument at the end of the the formula tells Excel that the match must be exact.

	B2		f_x	=VLOOKUP(A2, Pages!$A$2:$B$39, 2, FALSE)	
	A	B	C	D	
1	Page ID	Page Name	Page Views	Hit Percentage	
2	28000546	Home Page	1,457,170	49.49%	
3	28001169		490,190	16.65%	
4	28000519		163,540	5.55%	
5	28000438		117,360	3.99%	
6	28000411		75,060	2.55%	
7	28000550				
8	28000410				
9	28000409				
10	28000440				
11	28000520				

Page Views / Pages

3 Back on the **Page Views** worksheet, in the cell containing the formula, Excel displays the page name it found.

2 On the **Pages** worksheet, VLOOKUP looks in the leftmost column of cells A2 through B39 for a match to the value in cell A2 on the **Page Views** tab…

…if a match exists, the formula moves to column 2 (Page Name) to retrieve the corresponding page name.

	A	B
1	**Page ID**	**Page Name**
2	28000911	National News 1
3	28001616	National News 2
4	28000413	National News 3
5	28000543	National News 4
6	28000546	Home Page
7	28001169	Comics & Humor
8	28000519	International News 1
9	28000438	International News 2
10	28000411	International News 3
11	28000550	International News 4

Page Views / Pages

Microsoft Excel
VLOOKUP Refresher

Let's look at a VLOOKUP formula in action. Imagine that you have a workbook containing data about your web site. The workbook contains a worksheet called Page Views (with a set of page IDs that uniquely identify each site page and the hits it receives) and another called Pages (with the page IDs and the names of the pages that correspond to each ID). Your goal is to find and display page names that match the page IDs. *For a visual explanation of this example, see page 2.*

=VLOOKUP(A2, PAGES!$A$2:$B$39, 2, FALSE)

On the **Page Views** worksheet, use the value in cell A2 as your search term

On the **Pages** worksheet, search the leftmost column of cells A2 through B39 for a match to the value in cell A2...

...and when you find a match, display the corresponding page name

...while you're at it, find an exact match to the search term

Argument	Notes
lookup_value	This is your search term, or the word or value that you want to find. In this example, the search term is the 8-digit page ID number found in cell A2 on the Page Views worksheet.
table_array	Think of this as the lookup table, or the range of cells that you want to search. The cells reside on another worksheet, so the worksheet name (Pages) precedes the range values ($A$2:$B$39). The exclamation point (!) separates the sheet reference from the cell reference. If you want to search through a range residing on the same page as the formula, remove the sheet name and exclamation point. Also, the dollar signs in this range indicate that this range is an absolute—or "locked"—reference. If you lock the lookup table, Excel always refers back to cells A2 through B38, no matter where you copy the VLOOKUP formula.
col_index_num	This is the column in the lookup table that contains the values you want to find. For example, column B in the Pages worksheet contains the page names that you want to find. Since B is the second column in the defined range of cells (A$2:$B$39), the function uses 2.
range_lookup	The fact that we've used FALSE here means that Excel will try to find an exact match for our Page ID number. If Excel can't find an exact match, you'll see a #N/A error. If you use a value of TRUE or 1, or leave this argument out altogether, VLOOKUP returns the next lowest match to your search term. For example, if you're looking for the number 96, and there is no such number in the table, but there is a 90, VLOOKUP will consider that a match and deliver 90 as the result.