#### VLOOKUP

[Syntax](Syntax.docx):

VLOOKUP ( lookup-value , table-array , col-index-num [ , [ range-lookup-flag ] ] )

Description: Performs a [vertical](vertical.docx) search for a value in the left-most column of a [table](table.docx) or an array, noting the [row](row.docx) in which the matching value is found. From that [row](row.docx), the value from a given column is returned.

Arguments:

|  |  |  |
| --- | --- | --- |
| Name | Type | Description |
| lookup-value | value of any type or a [reference](reference.docx) to a value of any type. | The value to be located in the left-most column of the table. If range-lookup is [FALSE](FALSE.docx) and lookup-value is a string, the wildcard characters, question mark (?) and asterisk (\*), can be included in lookup-value. A question mark matches any single character; an asterisk matches any sequence of characters. To find a question mark or asterisk, type a tilde (~) before the character. |
| table-array | array, [reference](reference.docx), [name](name.docx) | Designates the [table](table.docx) of information to be searched. The values in the left-most column of table-array can be text, numbers, or logical values. The values in the left-most column of table-array shall be placed in "ascending order", as follows: ..., -2, -1, 0, 1, 2, ..., A–Z, [FALSE](FALSE.docx), [TRUE](TRUE.docx). Uppercase and lowercase text is treated as equivalent. |
| col-index-num | number | The column number in table-array from which the matching value is to be returned. (A col-index-num of 1 returns the left-most column value in table-array, a col-index-num of 2 returns the next column in table-array, and so on.) |
| range-lookup-flag | logical | Specifies whether [HLOOKUP](HLOOKUP.docx) is to find an exact or approximate match. If [TRUE](TRUE.docx) or omitted, an approximate match is returned. That is, if an exact match is not found, the next largest value that is less than lookup-value is returned. If [FALSE](FALSE.docx), an exact match is performed, in which case, the values in the left-most column of table-array need not be sorted. If there are two or more values in the left-most column of table-array that match lookup-value, the top-most value found is used. |

Return Type and Value: any – The value from a given [row](row.docx) number, where the column is determined by a search of the top [row](row.docx) looking for a match with a given value.

However, if

* An exact match is performed, but no match is found, #N/A is returned.
* col-index-num is less than 1, #VALUE! is returned.
* col-index-num is greater than the number of columns in table-array, #REF! is returned.
* lookup-value is smaller than the smallest value in the left-most column of table-array, #N/A is returned.

[Example: Given the following data:

|  |  |  |  |
| --- | --- | --- | --- |
|  | A | B | C |
| 1 | Density | Bearings | Bolts |
| 2 | 0.457 | 3.55 | 500 |
| 3 | 0.525 | 3.25 | 400 |
| 4 | 0.616 | 2.93 | 300 |
| 5 | 0.675 | 2.75 | 250 |
| 6 | 0.746 | 2.57 | 200 |
| 7 | 0.835 | 2.38 | 150 |
| 8 | 0.946 | 2.17 | 100 |
| 9 | 1.09 | 1.95 | 50 |
| 10 | 1.29 | 1.71 | 0 |

VLOOKUP(1,A2:C10,2) results in 2.17  
VLOOKUP(1,A2:C10,3,TRUE) results in 100.00  
VLOOKUP(2,A2:C10,2,TRUE) results in 1.71  
  
end example]