Spreadsheets

Lookup Functions

100

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Skills Lesson Part 1 Overview

Objectives

To understand the practical use of Lookup Functions.

To understand the purpose of the:

- Lookup Value
- Table Array
- Col_Index_Num or Row_Index_Num
- Range_Lookup

To understand the need to use absolute cell referencing in Lookups.

Outcomes Pupils will complete the following activities: Task 1: Vlookup (Vertical) Task 2: Hlookup (Horizontal) Task 3: Using Extract Functions with LOOKUP Task 4: Lookup Task 5: Create your own question for your peer.

Task 1: Vlookup (Vertical)

Using VLOOKUP is similar to looking up a person's name in a telephone book to get a telephone number. VLOOKUP looks at a value in one column and finds its corresponding value in another column.

\square	Α	В	С	D
3	Student ID	Name	House Colour	Year
4	A00123			
5	B00765	Looku		
6	e00123			
7	C00769			
8				
9	A00124	Billy	Green	7
10	A00123	Sarah	Red	9
11	C00124	Jack	Blue	7
12	D00123	Mohammed	Table_Array or	
13	E00124	Abdulla		
14	B00765	Julie	lookup table	
15	B00766	Kayas	Yellow	12
16	e00123	Sofia	Green	8
17	e00124	Bob	Red	7
18	C00769	James	Blue	8
19	C00770	Jude	Yellow	10

	A	В	
3	Student ID	Name	Hous
4	A00123	=VLOOKUP(A4	
5	B00765	VLOOKUP(<u>lookup</u>	value,
-	00400		

1) Select the lookup value. The lookup value will appear also in the lookup table (table_array).

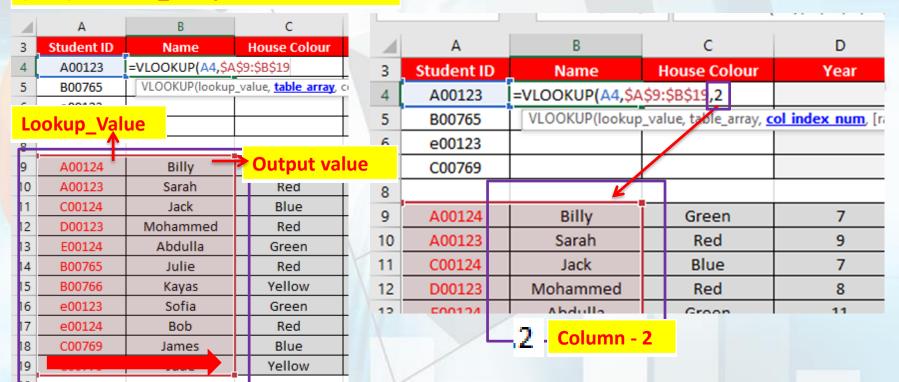
Task 1: Vlookup (Vertical)

2) Select the lookup table (table_array). This may be in the same sheet, next tab or another excel file. Select the lookup value and then the output value.

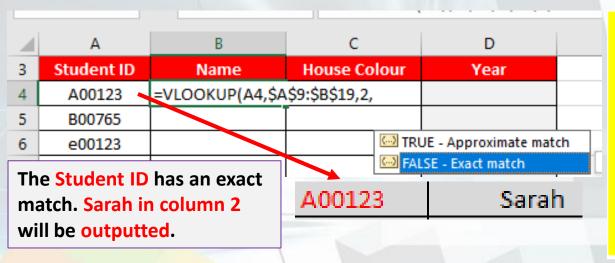
Make sure you absolute cell reference (Lock) the table_arrray.

3) Select the column in the table for the output value.

In this example the name is in the second column of the selected table so therefore you would write 2.



Task 1: Vlookup (Vertical)



4) You need to select false which is an exact match. This means the Vlookup will only find an exact match of the lookup value for the output value.

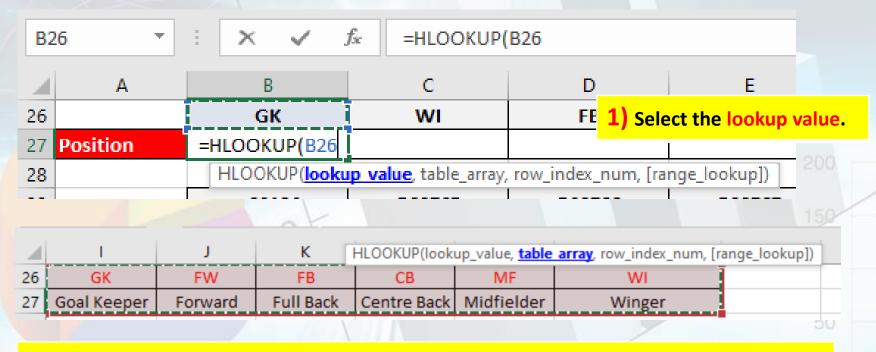
Remember to close the brackets.

When the lookup value does not have an exact match in the table array then you have to use an approximate match. With the grades example if the percentage (%) is 90 or more than the grade will be A*.

Name	%	Grade	\wedge	Barcode	Brand	100	
Mohammed	96		11/4	A00123		24	
Abdulla	67	TRUE - Approximate match			- A	Nike	
Yousef	54	IRUE -	Appr	oximate match #	В	Addidas	
16-1	70	В			- Barrada - Mila aratabada		
80		Α		First letter of the Barcode will be matched to the value in the Table Array.			
	90	A*		the value in the I	able Array.		

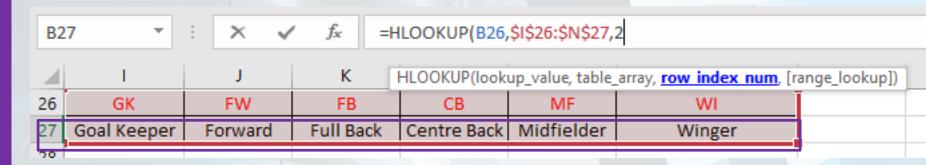
Task 2: Hlookup (Horizontal)

HLOOKUP works horizontally. You will be required to select the row rather than a column for a VLOOKUP.



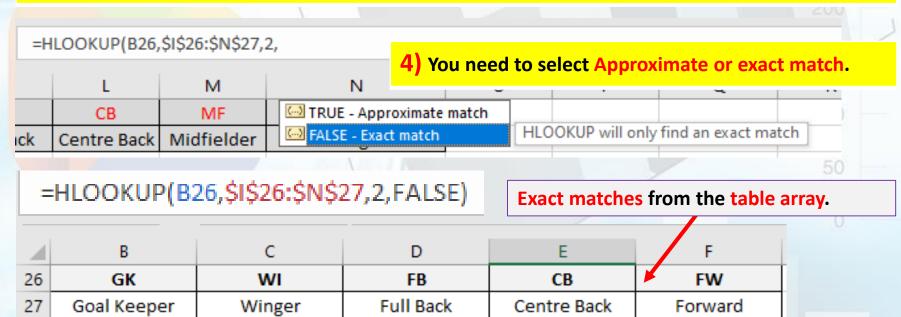
2) Select the Table Array and absolute cell reference if required.

Task 2: Hlookup (Horizontal)



3) Select the Row to find the output data. In this case the data is in Row 2.

IF the Lookup is FW then Forward will be the output from the second row.

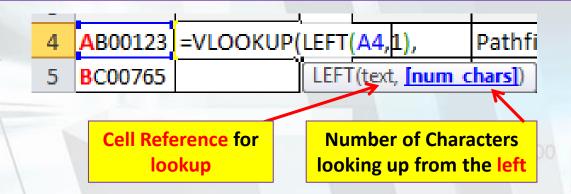


Task 3: Using Extract Functions with LOOKUP

Barcode	Brand		
AB00123	Lookup		
BC00765	- Value		
EF0123			
CD00769			
EF00183			
AB00324			
EF00725			
AB00226			
DE00127			
AB00153			
CD00123	Table		
EF00130	Array		
	Allay		
A	Samsung		
В	Nokia		
С	Apple		
D	LG		

Sony

In this example the first character of the Barcode needs to be used a single lookup value in the Table array shown below the table. The match will be an exact Match.



=VLOOKUP(LEFT(A4,1),\$A\$17:\$B\$21,2,FALSE)

Extract Functions:

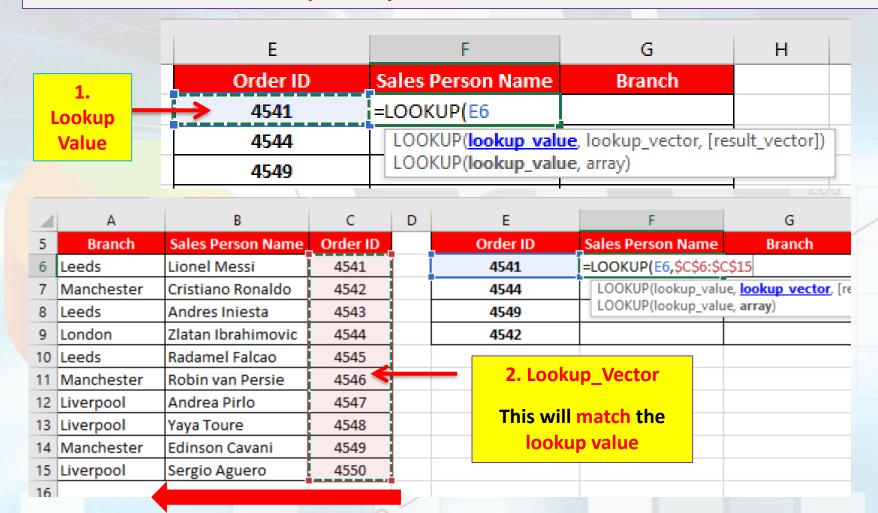
Left: Returns the specified number of characters from the start of a text string.

Right: Returns the specified number of characters from the end of a text string.

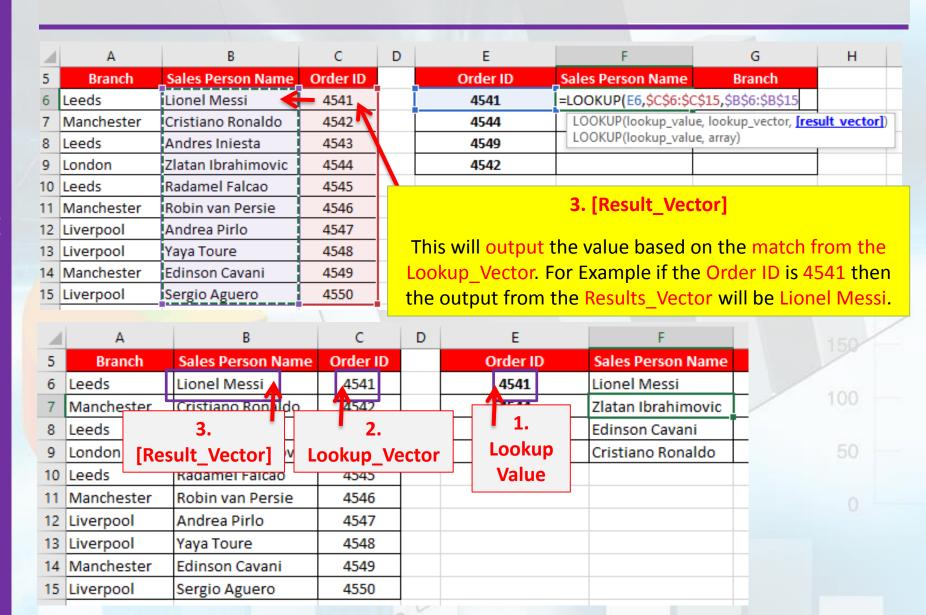
Mid: Returns the character from the middle of a text string, given a starting position and length.

Task 4: LOOKUP

Looks up a value either from a one-row or one-column range or from an array. Provided for backward Compatibility

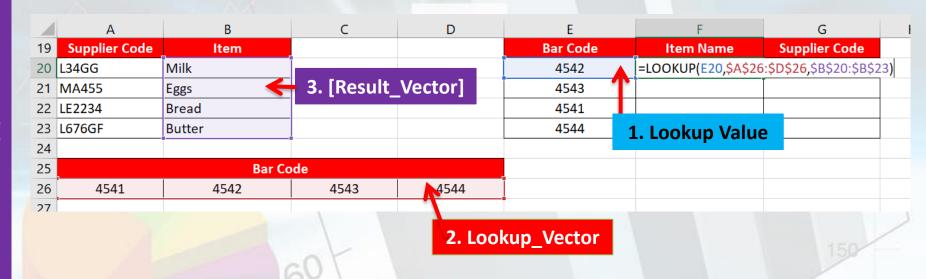


Task 4: LOOKUP



Task 4: LOOKUP

The Look_Vector and the Result_Vector can be selected either vertically or horizontally.



The Lookup_Vector and the Result Vector needs to be the same length (4 in this example).

Plenary – Refer to the Lesson Objectives

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Plenary Task (Q&A)

Can you describe the difference between the following lookup functions:

- Vlookup
- Hlookup
- Lookups