VLookups

VLookups: What's the Purpose?

- Quickly lookup values in one table in another table or range

- Check whether values in one table are in another range of values

- Basically—You're looking for one value (or a list of values) in another table and pulling information that is associated with that value. It's like looking for phone number in the phone book by a name.

Vlookups: Tables

In this example, table 1 has information that we would like to add to table 2 based on doc #

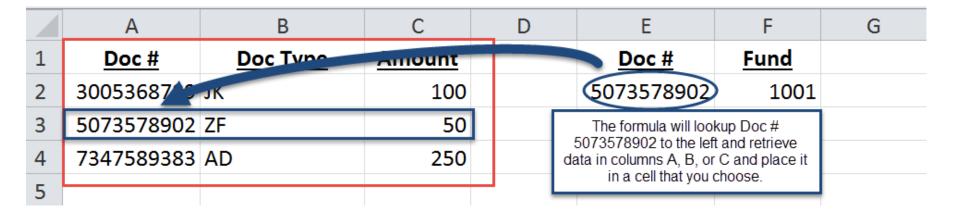|	A	Table 1	C	D	Table 2	G
1	**Doc #**	**Doc Type**	**Amount**		**Doc #**	**Fund**
2	3005368789	JK	100		5073578902	1001
3	5073578902	ZF	50		7347589383	3500
4	7347589383	AD	250		3005368789	5550
5						

We want to add Doc Type and Amount to Table 2 without having to manually key it in the rows next to Doc #

	A	B	C	D	E	F	G
1	**Doc #**	**Doc Type**	**Amount**		**Doc #**	**Fund**	
2	3005368789	JK	100		5073578902	1001	
3	5073578902	ZF	50		7347589383	3500	
4	7347589383	AD	250		3005368789	5550	
5							

In this example, the Vlookup will look for the first value in the second table in the first table and return the Doc Type associated with the Doc #

	A	B	C	D	E	F	G
1	**Doc #**	**Doc Type**	**Amount**		**Doc #**	**Fund**	
2	30053687 JK		100		5073578902	1001	
3	5073578902 ZF		50				
4	7347589383 AD		250				
5							

The formula will lookup Doc # 5073578902 to the left and retrieve data in columns A, B, or C and place it in a cell that you choose.

The VLookup formula placed in column G looks for the Doc # in the first table and returns the Doc Type

G2		f_x	=VLOOKUP(E:E,A:C,2,FALSE)			

	A	B	C	D	E	F	G
	Doc #	**Doc Type**	**Amount**		**Doc #**	**Fund**	
	3005368789	JK	100		5073578902	1001	ZF
	5073578902	ZF	50		7347589383	3500	
	7347589383	AD	250		3005368789	5550	

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VLookups: Tables

❖ The VLookup formula can then by copied and pasted to all values in a range

	G1			*jx*	=VLOOKUP(E:E,A:C,2,FALSE)

	A	B	C	D	E	F	G
	Doc #	**Doc Type**	**Amount**		**Doc #**	**Fund**	Doc Type
	3005368789	JK	100		5073578902	1001	ZF
	5073578902	ZF	50		7347589383	3500	AD
	7347589383	AD	250		3005368789	5550	JK

VLookups: How to

Select the first cell that you would like to bring in the new information, then go to the "Formulas" tab and select "Insert Formula". This prompt will appear.

When you select the VLookup formula to insert, this help box will appear. There are 3 mandatory fields and one optional.

The Lookup_value is where you will enter the range of values to lookup. Since we're wanting to lookup values in column E, we can click into the Lookup_value field and select column E on the spreadsheet.

The Table_array is the table that we're going to in order to lookup the information. When you click into the Table_array field, you can then select the range of your table. In this example, you can select the top of column A and drag to column C.

Col_index_num

⚲ The Col_index_num is the number of columns over from the key that you want to look up. The first column will be value to lookup, and in this example, column B (or the second column) will bring in the Doc Type. ("3" would bring in the Amount).

The Range_lookup field is optional and defaults to "True". 99.9% of the time you will enter false. False tells the formula to look for an exact match. We'll discuss when to use "True" later.

VLOOKUP   =VLOOKUP(E:E,A:C,2,false)

	A	B	C	D	E	F	G
1	Doc #	Doc Type	Amount		Doc #	Fund	
2	3005368789	JK	100		5073578902	1001	,2,false)
3	5073578902	ZF	50		7347589383	3500	
4	734...				...9	5550	

Function Arguments

VLOOKUP

Lookup_value	E:E	= 5073578902
Table_array	A:C	= {...}
Col_index_num	2	= 2
Range_lookup	false	= FALSE
		= "ZF"

The Finished Product

Once the Lookup_value (the value you're looking for), the Table_array (the table with matching value to the left), The Column_index (the number of columns with the value that you're looking for) and the Range_lookup (false) is entered the Vlookup is complete.

=VLOOKUP(E:E,A:C,2,FALSE)

	B	C	D	E	F	G
	Doc Type	**Amount**		**Doc #**	**Fund**	
	JK	100		5073578902	1001	ZF
	ZF	50		7347589383	3500	AD
	AD	250		3005368789	5550	

- If you were to enter 3 in the Column_index field, you would bring in the 3rd column in the Table_array (Amount) in the cell where you entered the Vlookup formula.

| G2 | | | f_x | =VLOOKUP(E:E,A:C,3,FALSE) |

	A	B	C	D	E	F	G
	Doc #	**Doc Type**	**Amount**		**Doc #**	**Fund**	
	3005368789	JK	100		5073578902	1001	50
	5073578902	ZF	50		7347589383	3500	250
	7347589383	AD	250		3005368789	5550	

Vlookups: Other Purposes

You can search two lists to see if one value is in another list by doing a Vlookup. If you enter 1 into the Column_index and the value isn't in the table_array range, a "#N/A" error will appear.

Vlookups: When to use "True"

⟡ If you're doing a lookup against a list of values arranged in ascending order, you can use true in the Vlookup command to find an approximate match. The Vlookup will look for the closest value that does not exceed the looked up amount.

| | F2 | f_x | =VLOOKUP(E:E,$A$2:$C$4,3,TRUE) |

	A	B	C	D	E	F
1	Low End	High End	Discount		Goods Amount	Discount
2	$0.00	$999.99	5.00%		$400.00	5.00%
3	$1,000.00	$9,999.99	6.00%		$25,000.00	10.00%
4	$10,000.00	$1,000,000.00	10.00%		$2,000.00	6.00%
5						