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This useful function can analyse a series of values and summarise them into a number of specified ranges. For example the heights of some children can be grouped in to four categories of [Less than 150cm]; [151 - 160cm]; [161 - 170cm]; [More than 170cm].

Frequency is an unusual array function and it works differently to most other normal functions. It can not simply be typed into a cell or even entered properly using the Excel Function Wizard.

Note that this function does not analyse values into categories e.g. household expenditure into groups such as gas, electricity, water, rates etc. To perform this kind of analysis, use the [array version of Sum\(\)](#).

The frequency function has two arguments - the first is the range of cells containing values to be analysed; the second is the range of cells containing the upper values of each group. i.e. **=Frequency(A3:A120, B6:B10)**

The second argument (the group upper limits) will obviously exclude any values which exceed the highest category or banding. The function allows you to take account of this and extend the range of analysis to an additional category of all values that exceed the upper limit.

A step by step example of how to use the frequency function:

1. Identify a range of data on which you want to perform your frequency analysis. (C5:C16)
2. Create a vertical range of cells containing the upper bandings with which you wish to group your data (i.e.

	B	C
4		Trained Staff
5	Ward A	12
6	Ward B	14
7	Ward C	8
8	Ward D	15
9	Ward E	4
10	Ward F	14
11	Ward G	19
12	Ward H	22
13	Ward I	14
14	Ward K	15
15	Ward L	20
16	Ward M	27
17	-c-d-b-	

0-12, 13-16, 17-20, 21-24)

3. Highlight a vertical range of cells in which you wish the analysis to be reported. Note that by extending this range by one extra cell, you can capture all values above the maximum banding (i.e. over 24).

E	F
Bandings	Frequency
12	
16	
20	
24	

4. With the whole destination range highlighted, type the formula.

= Frequency(C5:C16, E5:E8)

5. Do not press enter.

Because this is an array function, use the alternative key strokes of <Ctrl> + <Shift> + <Enter>

	E	F
4	Bandings	Frequency
5	12	3
6	16	5
7	20	2
8	24	1
9		1
10		

6. The results will then be automatically entered in all 5 cells (F5:F9). You will notice (in the formula bar) that the formula appears with curly brackets / braces around it. This indicates that it is an array function. If you type the formula in a single cell and don't enter it using the correct key combination, the function will only return the first value (i.e. 3).

Trained staff on Wards	
Trained staff	No of Wards
0-12	3
13-16	5
17-20	2
21-24	1
>= 25	1

7. It is not necessary to have the output range adjacent to the range of bandings. It can be placed anywhere so long as the number of cells is sufficient. You may wish to place the results directly into a table which contains narrative text versions of the bandings for display purposes. The actual range of bandings used by the function is hidden elsewhere and need not be displayed / printed.

This function can be of assistance in grouping data to be displayed on a graph