

# Microsoft Excel - FREQUENCY



## FREQUENCY(data\_array,bins\_array)

Where *data\_array* is the population of values and *bins\_array* is the set of intervals into which the values in *data\_array* are grouped. Blank cells and text are ignored.

F1		fx {=FREQUENCY(A1:C11,E1:E5)}				
	A	B	C	D	E	F
1	25	99	80		10	2
2	91	48	41		30	8
3	50	9	24		50	9
4	90	42	88		70	1
5	11	71	49		90	9
6	57	100	98			
7	74	20	80			
8	44	33	23			
9	12	36	80			
10	14	75	87			
11	10	44	21			

The number of elements in the returned array is one more than the number of elements in *bins\_array*. The extra element in the returned array returns the count of any values above the highest interval.

So, for example, when counting three ranges of values that are entered into

three cells, you should enter the formula into four cells for the full set of results. The extra cell returns the number of values in *data\_array* that are greater than the last interval value.

In the illustration, there are 29 observations in the frequency distribution but there are 33 values in the population, the values greater than the top bin limit are not reported.

## Dynamic Transposition

You can use *Edit, Paste Special, Transpose* to shift the vertical and horizontal orientation of a range of cells on a worksheet but the results of the transposition are static and you would have to repeat the transposition if the original values were changed. To return the transposed results as a dynamic formula you need to use the TRANSPOSE function:

B6		fx {=TRANSPOSE(A1:D4)}			
	A	B	C	D	E
1	Jan	Feb	Mar	Apr	
2	10	20	30	40	
3	100	200	300	400	
4	50	100	150	200	
5					
6	Jan	10	100	50	
7	Feb	20	200	100	
8	Mar	30	300	150	
9	Apr	40	400	200	
10					

## TRANSPOSE(array)

Where *array* is the range of cells to be transposed. The formula has to be entered as an array formula into a range that has the same number of rows and columns, respectively, as *array* has columns and rows.

The first row of *array* becomes the first column of the returned array. Any changes made in the range of cells A1:D4 are reflected in the array of cells, B6:E9.

