



CENTRAL TENDENCY TEMPLATE FOR LARGE SAMPLES

A frequency data table to record and calculate large samples

Frequency Data Table (to calculate statistics of large samples) 'acc' means accumulated; running sum of frequency					
x Value of variable being measured	Tally ticks (if doing a survey)	f frequency each value happens [count]	acc	f*x <i>f times x</i>	
					Mode; most frequent x: _____
					Mean: $\frac{\Sigma(f * x)}{n} =$
					Median Halfway up the data acc; in between two values if n is EVEN. _____
		sum: n = _____		sum Σ all the <i>f * x</i> 's _____	

*A quick way to find the middle place of a string of numbers is to take $(n + 1)/2$. That will tell you where the middle place would fall. If the result is a half value then you then you are in between the two places. So in a string of 83 numbers the middle number would be in the 42nd place. In a string of an even number of numbers however, say 180, the middle place would be in the $181 \div 2$ place or the 'ninety and a halfth' place; so you would need find the mean of the two numbers either side; so the mean of the two numbers in the 90th and the 91st place.

EXAMPLE

Frequency Data Table (to calculate statistics of large samples) 'acc' means accumulated, running sum of frequency					
x Value of variable being measured	Tally ticks (if doing a survey)	f frequency each value happens [count]	acc	f*x <i>f times x</i>	
					Mode; most frequent x: Mode = <u>14</u>
10		2	2	2*10=20	
11		4	6	6*11 = 66	
12		8	14	96	
13		6	20	78	Mean:
14		9	24	126	$\frac{\Sigma(f * x)}{n} = \frac{379}{25}$
15		1	25	15	= 15.16
					Median
					Halfway up the data (acc); in between two values if n is EVEN.
					$\tilde{x} = \underline{12}$
					(13 th place down list)
		sum: n = <u>25</u>		sum <i>Σall the f * x's</i> = <u>379</u>	

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