

Frequency Tables

Frequency tables appear in both row and column form. The same rules apply to both but you will be looking either at the relevant row or the relevant column.

Frequency table in **row form**

Student nights out per week	0	1	2	3	4
Frequency	48	26	50	81	15

← Group labels
← Frequency data

Frequency table in **column form**

Student nights out per week	Frequency
0	48
1	26
2	50
3	81
4	15

If the next student who walked into college went out 1 night a week the frequency for that number of nights out would increase from 26 to 27.
Frequency is just the number of times the event occurs.

The Rules:

1. Immediately add a column and row to calculate your totals
2. Total frequency data individually and place value in the new column or row, next to the relevant frequency e.g. $0 \times 48 = 0$, $1 \times 26 = 26$, $2 \times 50 = 100$...
3. Total frequency data e.g. $48 + 26 + 50 + 81 + 15$
4. Total frequency values e.g. $0 + 26 + 100 + 243 + 60$

Frequency table in row form

Student nights out per week	0	1	2	3	4	Total
Frequency	48	26	50	81	15	220
Frequency Value	0	26	100	243	60	429

Frequency table in column form

Student nights out per week	Frequency	Frequency Value
0	48	0
1	26	26
2	50	100
3	81	243
4	15	60
Total	220	429

Total number: of students of nights out

	Definition	Definition when using frequency	Answer
Mean	Sum of the items divided by the number of items	total frequency values divided by total frequency $429 / 220 = 1.95$ (nights out per week per student)	1.95
Mode	The value that occurs most commonly in the list	frequency with the highest value most students (81) said they went out 3 nights per week	3
Median	Total number of items (n + 1) divided by 2	total frequency + 1 divided by 2 $(220 + 1) / 2$ $221 / 2 = 110.5$	2
		Remember Now find the 110.5 th value! $48 + 26 = 74 + 50 = 124$, so the 110.5 th value falls in the group with a frequency of 50.	
Range	The highest number minus the lowest number	The range is from 0 nights out to 4 nights out: $4 - 0 = 4$	4