

Averages from Frequency Tables

For AQA GCSE Mathematics (8300) • Foundation tier

Name _____

Total marks: **23**

Answer **all** questions in the spaces provided. Show your working: marks are given for correct method.

- 1** The table shows the number of goals a team scored in 20 matches.

Number of goals	0	1	2	3	4
Frequency	3	7	6	3	1

- (a) Write down the mode.

[1 mark]

Answer _____

- (b) Write down the range.

[1 mark]

Answer _____

- (c) Work out the median.

[2 marks]

Answer _____

- (d) Work out the mean number of goals.

[3 marks]

Answer _____

- 2 The table shows the number of people in some cars.

Number of people	1	2	3	4
Frequency	8	10	12	5

Sam says, “The mode is 12”

Is Sam correct? Tick a box.

Give a reason for your answer.

[1 mark]

☐ Yes

☐ No

- 3 The table shows the number of brothers and sisters of 30 students.

Number of brothers and sisters	0	1	2	3	4
Frequency	8	11	6	3	2

- (a) Kim says,

“The mean is $(8 + 11 + 6 + 3 + 2) \div 5 = 6$ ”

Explain what Kim has done wrong.

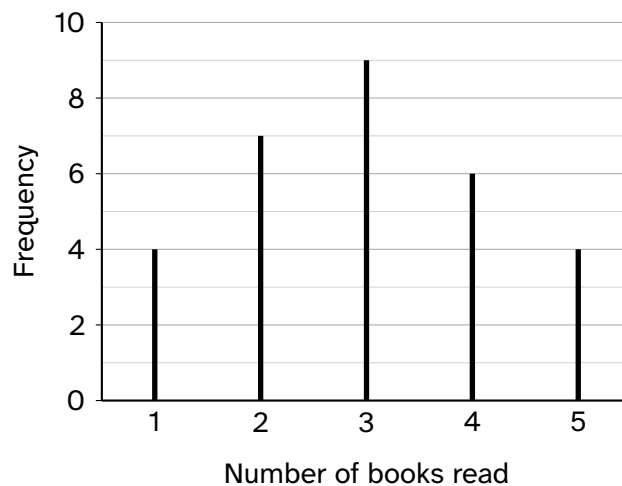
[1 mark]

- (b) Work out the mean number of brothers and sisters.
Give your answer to 2 decimal places.

[2 marks]

Answer _____

- 4 The members of a book club recorded how many books they each read in March. The chart shows information about the results for 30 members.



- (a) Work out the range of the number of books read.

[1 mark]

Answer _____

- (b) Work out the median number of books read.

[2 marks]

Answer _____

- (c) Work out the mean number of books read.
Give your answer to 2 decimal places.

[3 marks]

Answer _____

- 5 The table shows the number of pets owned by some students.

Number of pets	0	1	2	3
Frequency	4	6	x	2

The mean number of pets is 1.5
Work out the value of x .

[3 marks]

Answer $x =$ _____

- 6 The table shows the number of cars owned by each of 24 households.

Number of cars	Number of households
0	4
1	x
2	y
3	5

The median number of cars is 1.5
Work out the value of x and the value of y .

[3 marks]

$x =$ _____ $y =$ _____