Averages from Tables and Diagrams

SCAN ME

REVISE THIS TOPIC

1 The table shows the number of times some students were late to school in one week.

Number of Lates	Frequency
0	17
1	5
2	3
3	2
4	2
5	1
	30

0
5
6
6
8
5
30

(a) Find the modal number of lates.

0

(1)

(b) Work out the mean number of lates per student.

$\frac{30}{30} = 1$

1

(3)

(Total for Question 1 is 4 marks)

2 The table shows the number of bedrooms for 50 new houses being built.

Number of Bedrooms	Frequency
2	6
3	31
4	10
5	3
	50

12
93
40
15
160

(a) Find the modal number of bedrooms.

3

(1)

(b) Find the range of the number of bedrooms.

5 − 2

3

(1)

(c) Work out the mean number of bedrooms per house.

$\frac{160}{50} = 3.2$

3.2

(3)

(Total for Question 2 is 5 marks)

3 The table shows the number of holidays taken by some workers during a year.

Number of Holidays	Frequency
0	1
1	10
2	9
3	5

0
10
18
15
43

25

(a) Find the modal number of holidays.

1

(1)

(b) Work out the mean number of holidays per worker.

$\frac{43}{25} = 1.72$

1.72

(3)

(c) Work out the median number of holidays.

0, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 2, 2, 2, 2, 2, 2, 2, 2, 2, 3, 3, 3, 3, 3

2

(2)

(Total for Question 3 is 6 marks)

4 The table shows the shoe sizes of 30 students in a tutor group.

Shoe Size	Frequency
3	3
4	4
5	8
6	9
7	5
8	1
	30

9
16
40
54
35
8
162

(a) Find the modal shoe size.

6

.....

(1)

(b) Work out the mean shoe size.

$\frac{162}{30} = 5.4$

5.4

.....

(3)

(c) Work out the median shoe size.

3 3 4 4 4 4 5 5 5 5 5 5 6 6 6 6 6 6 6 7 7 7 7 8

5.5

.....

(2)

(Total for Question 4 is 6 marks)

5 The table shows the number of detentions received by some students in a week.

Number of Detentions	Frequency
0	20
1	9
2	2
3	1
4	0

0
9
4
3
0

(a) Find the modal number of detentions.

0

.....

(1)

(b) Find the range of the number of detentions.

3 - 0

3

.....

(1)

(c) Work out the **total** number of detentions received by students.

0 + 9 + 4 + 3 + 0 = 16

16

.....

(2)

(Total for Question 5 is 4 marks)

6 The table shows the number of phones owned by 20 students in a class.

Number of Phones Owned	Frequency
0	2
1	15
2	2
3	1

0
15
4
3
22
20

(a) Find the modal number of phones owned.

1

.....

(1)

(b) Find the range of the number of phones owned.

3 − 0

3

.....

(1)

(c) Work out the mean number of phones owned.

$\frac{22}{20} = 1.1$

1.1

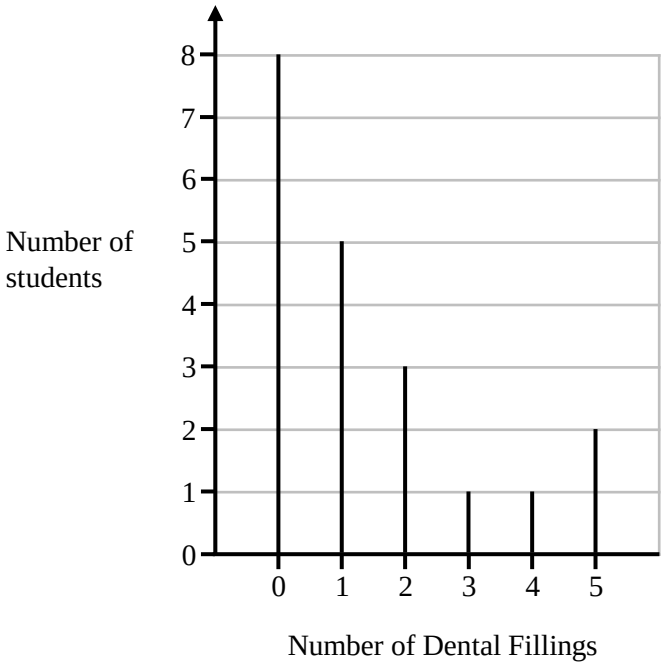
.....

(3)

(Total for Question 6 is 5 marks)

7 A class of 20 students were asked how many dental fillings they had.

The chart shows results.



(a) Find the modal number of dental fillings.

0

.....

(1)

(b) Work out the mean number of dental fillings per student.

$0 \times 8 = 0$

$1 \times 5 = 5$

$2 \times 3 = 6$

$3 \times 1 = 3$

$4 \times 1 = 4$

$5 \times 2 = 10$

$5+6+3+4+10 = 28$

$28 \div 20 = 1.4$

1.4

.....

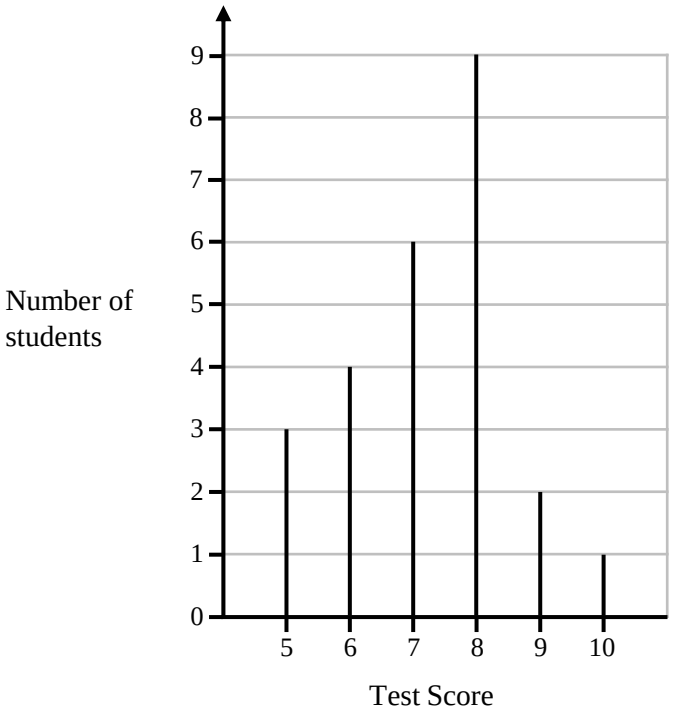
(3)

(Total for Question 7 is 4 marks)

8 A class of 25 students were given a maths test.

The maximum score for the test was 10 marks.

The chart shows results of the test.



(a) Find the range of the test scores.

10 − 5 = 5

5

(1)

(b) Work out the median test score.

5 5 5 6 6 6 6 7 7 7 7 7 7 8 8 8 8 8 8 9 9 10

7

(2)

(Total for Question 8 is 3 marks)