



Averages from Tables and Diagrams



← 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	0
1	5	5
2	3	6
3	2	6
4	2	8
5	1	5
	<u>30</u>	<u>30</u>

1 (a) Write down the modal number of lates. [1 mark]

Answer 0

1 (b) Work out the mean number of lates per student. [3 marks]

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

Answer 1



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

Number of Bedrooms	Frequency	
2	6	12
3	31	93
4	10	40
5	3	15
	<u>50</u>	<u>160</u>

2 (a) Write down the modal number of bedrooms. [1 mark]

Answer 3

2 (b) Write down the range of the number of bedrooms. [1 mark]

5-2
Answer 3

2 (c) Work out the mean number of bedrooms per house. [3 marks]

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

Answer 3.2





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

Shoe Size	Frequency	
3	3	9
4	4	16
5	8	40
6	9	54
7	5	35
8	1	8
	<u>30</u>	<u>162</u>

4 (a) Write down the modal shoe size. [1 mark]

Answer 6

4 (b) Work out the mean shoe size. [3 marks]

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

Answer 5.4

4 (c) Work out the median shoe size. [2 marks]

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

Answer 5.5





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

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

5 (a) Write down the modal number of detentions. [1 mark]

Answer 0

5 (b) Write down the range of the number of detentions. [1 mark]

3-0

Answer 3

5 (c) Work out the **total** number of detentions received by students. [2 marks]

$$0 + 9 + 4 + 3 + 0 = 16$$

Answer 16



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

Number of Phones Owned	Frequency	
0	2	0
1	15	15
2	2	4
3	1	3
	<u>20</u>	<u>22</u>

6 (a) Write down the modal number of phones owned. [1 mark]

Answer 1

6 (b) Write down the range of the number of phones owned. [1 mark]

3-0

Answer 3

6 (c) Work out the mean number of phones owned. [3 marks]

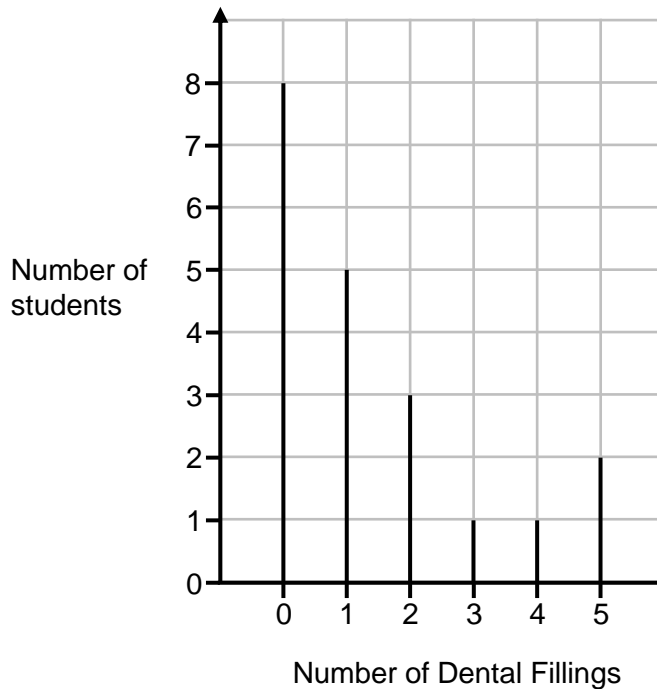
$$\frac{22}{20} = 1.1$$

Answer 1.1



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

The vertical line chart shows results.



7 (a) Write down the modal number of dental fillings. [1 mark]

Answer 0

7 (b) Work out the mean number of fillings per student. [3 marks]

$$0 \times 8 = 0$$

$$4 \times 1 = 4$$

$$1 \times 5 = 5$$

$$5 \times 2 = 10$$

$$2 \times 3 = 6$$

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

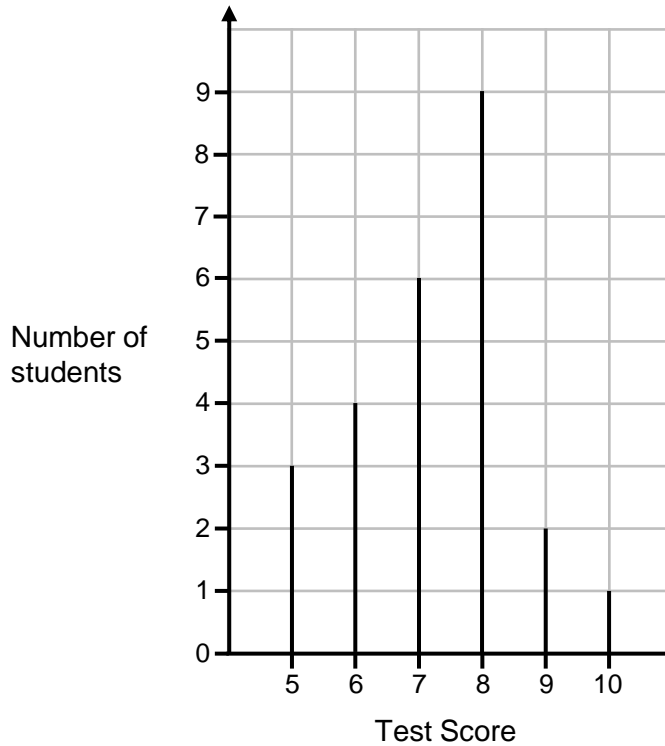
$$3 \times 1 = 3$$

$$28 \div 20 = 1.4$$

Answer 1.4



8 A class of 25 students were given a maths test.
The maximum score for the test was 10 marks.
The vertical line chart shows results of the test.



8 (a) Write down the range of the test scores.

[1 mark]

$10 - 5 = 5$

Answer 5

8 (b) Work out the median test score.

[2 marks]

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

Answer 7



9 The table shows the number of homeworks received by some students in a week.

Number of homeworks	Frequency
2	6
3	2
4	
5	8
6	3

The frequency for 4 homeworks was missed off.

Tick **one** box for each of the statements below.

[3 marks]

	Must be true	Could be true	Cannot be true
The modal number of homeworks is 4	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
The range of the number of homeworks is 4	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The mean of the number of homeworks is 4	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

