Averages Revision

1. Find the mode and median of these thirteen numbers.

2 8 2 5 3 7 14 6 7 3 5 3 10

.....

Mode .....

(1)

.....

Median .....

(2)

(Total 3 marks)

2. The sizes of the first eleven pairs of shoes sold in a shop one morning are

8 5 4 5 7 10 9 5 11 5 6

(a) What is the mode of the data?

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Answer .....

(1)

(b) What is the median shoe size?

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Answer .....

(2)

(c) Which of the mode or median would be more useful to the shopkeeper when he is ordering more shoes?
Explain your answer.

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(1)

(Total 4 marks)

3. Jenna asks ten friends how many bedrooms they have in their houses.

Her results are

3 5 2 1 1 3 4 2 2 3

(a) Work out the median.

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Answer .....

(2)

(b) Calculate the mean.

.....

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Answer .....

(3)

(Total 5 marks)

4. Jim records how many text messages he receives each day for ten days.

3 0 1 4 1 4 6 1 20 0

(a) Work out the median.

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Answer ……

(2)

(b) Work out the mean.

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Answer ……

(2)

(c) Which of these two averages better represents the data?
Explain your answer.

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(1)

(Total 5 marks)

5. The number of aircraft landing at an airport each hour is shown below.

2 3 8 5 6 10 4 9 4 11 4

(a) Find the median of these numbers.

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Answer .....

(2)

(b) Write down the mode of these numbers.

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Answer .....

(1)

(c) Work out the range of these numbers.

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Answer .....

(1)

(d) Calculate the mean of these numbers.

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Answer .....

(3)

(Total 7 marks)

6. Chloe records the number of goals scored by her favourite football team in each of 40 matches.

Number of goals	Frequency
0	7
1	15
2	13
3	2
4	2
5	1

(a) Write down the mode of the number of goals scored.

Answer .....

(1)

(b) Calculate the mean number of goals scored per match.

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Answer .....

(3)

(Total 4 marks)

7. The number of goals scored in 15 hockey matches is shown in the table.

Number of goals	Number of matches
1	2
3	1
5	5
6	3
9	4

Calculate the mean number of goals scored.

…….....….....….....……..…….....

…….....….....….....……..…….....

Answer ..... goals

(Total 3 marks)

8. A police officer records the speeds of 60 cars on a dual carriageway.

Speed (mph)	Frequency	Midpoint	
40 to less than 50	9		
50 to less than 60	27		
60 to less than 70	21		
70 to less than 80	3		

Use the class midpoints to calculate an estimate of the mean speed of these cars.

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Answer ..... mph

(Total 3 marks)

9. Jane records the times taken by 30 pupils to complete a number puzzle.

Time, t (minutes)	Number of pupils
$2 < t \leq 4$	3
$4 < t \leq 6$	6
$6 < t \leq 8$	7
$8 < t \leq 10$	8
$10 < t \leq 12$	5
$12 < t \leq 14$	1

Calculate an estimate of the mean time taken to complete the puzzle.

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Answer ..... minutes

(Total 4 marks)