Name:

GCSE (1 - 9)

Averages

Instructions

- Use black ink or ball-point pen.
- Answer all Questions.
- Answer the Questions in the spaces provided
- there may be more space than you need.
- Diagrams are **NOT** accurately drawn, unless otherwise indicated.
- You must show all your working out.

Information

- The marks for each Question are shown in brackets
- use this as a guide as to how much time to spend on each Question.

Advice

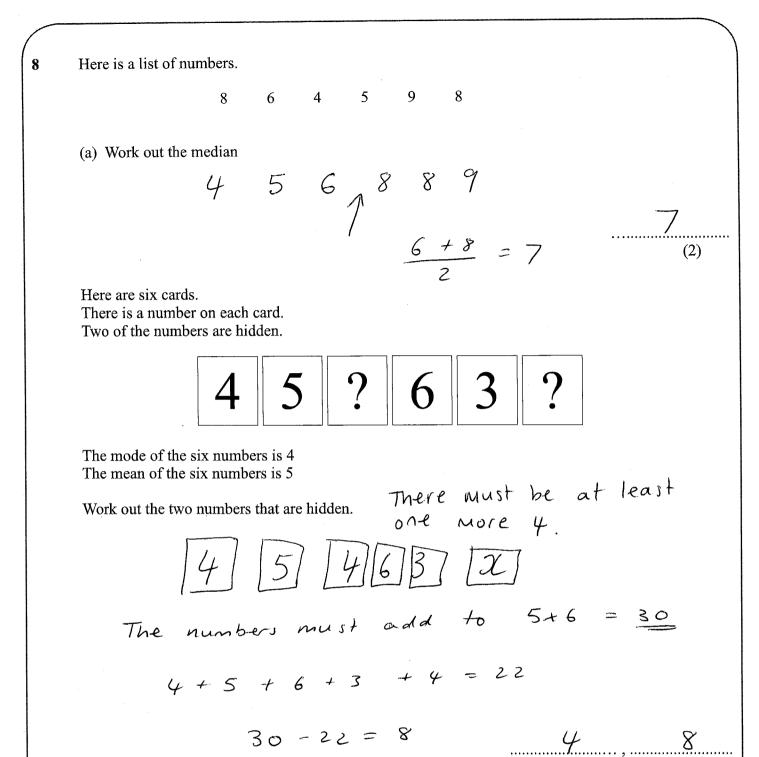
- Read each Question carefully before you start to answer it.
- · Keep an eye on the time.
- Try to answer every Question.
- · Check your answers if you have time at the end

1	Here is a list of 10 numbers.	·
	2 3 4 4 4 5 6 6 7 7	
	(a) Work out the range.	
	7-2=5	,
	···	(1)
	(b) Find the mode.	(*)
		4
	(c) Calculate the mean.	(1)
	2+3+4+4+4+5+6+6+7+7 = 48	
	48 = 4 8	
	$\frac{48}{10} = 4.8$	<i>4</i> . 8 (2)
*************	(Total for question	
2	Here is a list of 5 numbers.	
	4 6 9 10 11	
	(a) Work out the range.	
	17 - 4 - 7	7
	(b) Write down the median.	(1)
	(c) Calculate the mean	9
	(c) Calculate the inean.	<u>/</u> (1)
	4+6+9+10+11=40	
	40 - 0	
	$\frac{40}{5} = 8$	8
	(Total for question 2	(2) 2 is 4 marks)

3	Here are the heights, in cm, of 8 people.
	155 171 164 171 167 188 190 151
	(a) Work out the range.
	190 - 151
	39 cm
	(b) Find the mode. (1)
	en de la companya de La companya de la co
	(c) Calculate the mean.
	155+171+164+171+167+188+190+151
	= 1357
	$\frac{1357}{8} = 169.625 169.625 \text{ cm}$ (2)
	(Total for question 3 is 4 marks)
4	(Total for question 3 is 4 marks) Here are the weights, in grams, of 6 potatoes
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4	Here are the weights, in grams, of 6 potatoes 150 129 125 133 144 105 (a) Work out the range. 150 - 105 = 45 (b) Work out the median weight. 105 125 129 133 144 150 129 + 133 = 131

5	Here are six cards. Each card has a number on it.	
	19 7 11 8 15 15	
	(a) Work out the range of the numbers on the cards.	
	19-7=12	
		12
	(b) Work out the mean of the numbers on the cards.	(1)
	19 + 7 +	
	19+11+15+15+8+7=75	
	$\frac{75}{6} = 12.5$	12.5
_	(Total for ques	tion 5 is 3 marks)
6	Here is a list of 10 numbers.	
	1 4 4 5 6 8 11 11 14	
	(a) Work out the range.	
	14-1 = 13	
		13
	(b) Find the mode.	(1)
)/
		(1)
-	(Total for ques	
To 100 and 100	(Total for ques	(1)

	seven cards. Each card has a number on it.
	12 5 10 18 12 11 9
(a) Work	out the range of the numbers on the cards.
	18 - 5 = 13
(b) Work	out the median of the numbers on the cards.
	5 9 10 11 12 12 18
(c) Work	out the mean of the numbers on the cards.
	5 + 9 + 10 + 11 + 12 + 12 + 18 = 77
	$\frac{77}{7} = 11$
	$\frac{77}{7} = 11$
	$\frac{77}{7} = 1/$ (Total for question 18 is 5 m



(Total for question 8 is 3 marks)

9	Here is a list of numbers.
	14 19 15 20 11 14 19
	(a) Find the range
	20 -11 = 9
	(b) Calculate the mean (2)
	14+19+15+20+11+14+19 = 112
	$\frac{112}{7} = 16$
434	Andrew says, "The median is the middle number, so the median is 20." (c) Andrew is incorrect, explain why.
	The numbers have to be ordered first. The median is 15, (Total for question 9 is 5 marks)
10	Here is a list of seven numbers. One of the numbers is hidden.
	11 6 7 10 7 9 ?
	The mean of the numbers is 9.
	Find the value of the hidden number.
	7x9=63 The numbers must add to 63
	11+6+7+10+7+9=50
	63 - 50 = 13
	(Total for question 10 is 2 marks)

The mean of eight numbers is 41. 11

The mean of two of the numbers is 29.

Work out the mean of the other six numbers.

$$328 - 58 = 270$$

$$\frac{270}{6} = 45$$

(Total for question 11 is 3 marks)

Mark ran ar mean distance of 13.2 km in five days. 12

The next day Mark ran 20 km.

Find the mean distance Mark ran in the six days.

$$\frac{86}{6} = 14.3 \text{ km}$$

(Total for question 12 is 3 marks)