

# Statistical Measures

## Question Paper 2

Level	IGCSE
Subject	Maths
Exam Board	Edexcel
Topic	Handling Data Statistics
Sub Topic	Statistical Measures(Mean, Median, Mode)
Booklet	Question Paper 2

**Time Allowed:** 58 minutes

**Score:** /48

**Percentage:** /100

**Grade Boundaries:**

A*	A	B	C	D	E	U
>85%	75%	70%	60%	55%	50%	<50%

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- 1 The mean of four numbers is 2.6  
One of the four numbers is 5

Find the mean of the other three numbers.

.....  
**(Total for Question 1 is 3 marks)**

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- 2 Here are Ryan's scores in nine French tests.

4      6      4      7      8       $a$       6      7      7

The mean of Ryan's nine scores is 6

Work out the value of  $a$ .

$a =$  .....

**(Total for Question 2 is 3 marks)**

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**3** Zara must take 5 tests.

Each test is out of 100

After 4 tests, her mean score is 64%.

What score must Zara get in her 5th test to increase her mean score in all 5 tests to 70%?

.....  
**(Total for Question 3 is 4 marks)**

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4 Freya keeps hens.

The table shows information about the number of boxes of eggs she sold in each of 52 weeks.

Number of boxes sold in a week	Number of weeks
0 to 4	2
5 to 9	6
10 to 14	20
15 to 19	13
20 to 24	8
25 to 29	3

(a) Write down the modal class.

.....  
(1)

(b) Work out an estimate for the mean number of boxes of eggs that Freya sold each week.  
Give your answer correct to 3 significant figures.

.....  
(4)

Dan picks at random one of the 52 weeks.

(c) Find the probability that in this week Freya sold at least 15 boxes of eggs.

.....  
(2)

**(Total for Question 4 is 7 marks)**

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**5** The table shows information about the times, in minutes, taken by 50 people to get to work.

<b>Time taken (<math>t</math> minutes)</b>	<b>Frequency</b>
$0 < t \leq 10$	6
$10 < t \leq 20$	10
$20 < t \leq 30$	19
$30 < t \leq 40$	15

Work out an estimate for the mean time taken to get to work.

..... minutes

**(Total for Question 5 is 4 marks)**

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**6**  $a$ ,  $b$ ,  $c$  and  $d$  are four integers.

Their mean is 8

Their mode is 7

Their median is 7.5

(a) Find the value of the largest of the four integers.

.....  
(2)

(b) Find the mean value of the numbers  $(2a - 3)$ ,  $(2b - 3)$ ,  $(2c - 3)$  and  $(2d - 3)$ .

.....  
(2)

---

**(Total for Question 6 is 4 marks)**

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7 Here are the points that Carmelo scored in his last 11 basketball games.

23 20 14 23 17 24 24 18 16 22 21

(a) Find the interquartile range of these points.

.....  
(3)

Kobe also plays basketball.

The median number of points Kobe has scored in his games is 18.5

The interquartile range of these points is 10

(b) Which of Carmelo or Kobe is the more consistent points scorer?

Give a reason for your answer.

.....  
.....  
(1)

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**(Total for Question 7 is 4 marks)**

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- 8 The table shows information about the numbers of goals scored by some football teams last week.

Number of goals	Number of teams
0	5
1	8
2	2
3	3
4	2

Work out the total number of goals scored by these football teams last week.

.....  

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**(Total for Question 8 is 2 marks)**



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9 Here are the marks scored in a test by the girls in class 8C.

2    8    10    12    15    16    16    17    18    19    20

(a) Work out the interquartile range of the girls' marks.

.....  
(2)

The boys in class 8C did the same test.

The boys' marks had a range of 19 and an interquartile range of 11 marks.

Gareth says that the girls' marks are more spread out than the boys' marks.

(b) Is Gareth right?

Tick (✓) the appropriate box.

Yes

No

Give a reason for your answer.

.....  
.....  
(1)

---

**(Total for Question 9 is 3 marks)**

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- 10** Becky counted the number of matches in each of 50 boxes.  
The table shows information about her results.

Number of matches	Frequency
45	3
46	7
47	12
48	23
49	4
50	1

Work out the mean number of matches.

.....  
**(Total for Question 10 is 3 marks)**

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- 11** Three positive whole numbers are all different.  
The numbers have a median of 8 and a mean of 6  
Find the three numbers.

.....  

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**(Total for Question 11 is 2 marks)**

**12** The table gives information about the number of vehicles passing a point on a road in each of 70 intervals of equal length.

<b>Number of vehicles</b>	<b>Frequency</b>
1 to 5	8
6 to 10	10
11 to 15	18
16 to 20	20
21 to 25	10
26 to 30	4

(a) Write down the modal class interval.

.....  
(1)

(b) Calculate an estimate for the mean.

.....  
(4)

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**(Total for Question 12 is 5 marks)**

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**13**  $w, x, y$  and  $z$  are 4 integers written in order of size, starting with the smallest.

The mean of  $w, x, y$  and  $z$  is 13

The sum of  $w, x$  and  $y$  is 33

(a) Find the value of  $z$ .

$z = \dots\dots\dots$   
(2)

Given also that the range of  $w, x, y$  and  $z$  is 10,

(b) work out the median of  $w, x, y$  and  $z$ .

$\dots\dots\dots$   
(2)

**(Total for Question 13 is 4 marks)**