EXAM PAPERS PRACTICE

GCSE OCR Math J560
Mean, Median & Mode

Question Paper

"We will help you to achieve A Star "

EXAM PAPERS PRACTICE

Question 1

Ed has 4 cards.
There is a number on each card.

12	6	15	?

The mean of the 4 numbers on Ed's cards is 10

Work out the number on the 4th card.

[3 marks]

Question 2

The table gives information about the heights of 50 trees.

Height (h metres)	Frequency
$0 < h \leqslant 4$	8
$4 < h \leqslant 8$	21
$8 < h \leqslant 12$	12
$12 < h \leqslant 16$	7
$16 < h \leqslant 20$	2

Work out an estimate for the mean height of the trees.

[4 marks]

Question 3

(b) Work out an estimate for the mean height.

[4 marks]

Question 4

3 of the 25 women have a shoe size of 7

Zoe says that if you choose at random one of the 25 women, the probability that she has either a shoe size of 7 or a dress size of 14 is $\frac{9}{25}$ because

$$\frac{3}{25} + \frac{6}{25} = \frac{9}{25}$$

(b) Is Zoe correct?
You must give a reason for your answer.

[1 mark]

Question 5

Nadiya says,

"The mean may **not** be the best average to use to represent this information."

(b) Do you agree with Nadiya?
You must justify your answer.

[1 mark]

Question 6

(b) Calculate an estimate for the mean foot length.

[3 marks]

Question 7

Jenny works in a shop that sells belts.

The table shows information about the waist sizes of 50 customers who bought belts from the shop in May.

Belt size	Waist (w inches)	Frequency
Small	$28 < w \leqslant 32$	24
Medium	$32 < w \leqslant 36$	12
Large	$36 < w \leqslant 40$	8
Extra Large	$40 < w \leqslant 44$	6

(a) Calculate an estimate for the mean waist size.

[3 marks]

Question 8

Bob asked each of 40 friends how many minutes they took to get to work.

The table shows some information about his results.

Time taken (m minutes)	Frequency
$0 < m \leqslant 10$	3
$10 < m \leqslant 20$	8
$20 < m \leqslant 30$	11
$30 < m \leqslant 40$	9
$40 < m \leqslant 50$	9

Work out an estimate for the mean time taken.

[4 marks]

Question 9

Sumeet records the times, in minutes, for 40 runners to finish a half marathon.

Information about these times is shown in the table.

Time (t minutes)	Frequency
$60 < t \leqslant 90$	10
$90 < t \leqslant 120$	14
$120 < t \leqslant 150$	9
$150 < t \leqslant 180$	5
$180 < t \leqslant 210$	2

Calculate an estimate for the mean time.

[4 marks]

Question 10

The table gives information about the heights of 35 girls.

Height (h metres)	Frequency
$1.30 \leqslant h < 1.40$	11
$1.40 \leqslant h < 1.50$	9
$1.50 \leqslant h < 1.60$	7
$1.60 \leqslant h < 1.70$	6
$1.70 \leqslant h < 1.80$	2

(a) Find the class interval that contains the median.

[1 mark]

Question 11

The table shows some information about the dress sizes of 25 women.

Dress size	Number of women
8	2
10	9
12	8
14	6

(a) Find the median dress size.

[1 mark]

Question 12

There are 18 packets of sweets and 12 boxes of sweets in a carton.

The mean number of sweets in all the 30 packets and boxes is 14
The mean number of sweets in the 18 packets is 10

Work out the mean number of sweets in the boxes.

[3 marks]

Question 13

There are 10 boys and 20 girls in a class.
The class has a test.

The mean mark for all the class is 60
The mean mark for the girls is 54

Work out the mean mark for the boys.

[3 marks]

Question 14

Mr Brown gives his class a test.
The 10 girls in the class get a mean mark of 70%
The 15 boys in the class get a mean mark of 80%

Nick says that because the mean of 70 and 80 is 75 then the mean mark for the whole class in the test is 75%

Nick is not correct.
Is the correct mean mark less than or greater than 75%?
You must justify your answer.

[2 marks]

Question 15

Hertford Juniors is a basketball team.

At the end of 10 games, their mean score is 35 points per game.
At the end of 11 games, their mean score has gone down to 33 points per game.

How many points did the team score in the 11th game?

[3 marks]