MEAN, MEDIAN

Pearson Edexcel – Monday 8 June 2020 - Paper 3 (Calculator) Higher Tier

1.

7   There is a total of 45 boys and girls in a choir.

The mean age of the 18 boys is 16.2 years.
The mean age of the 27 girls is 16.7 years.
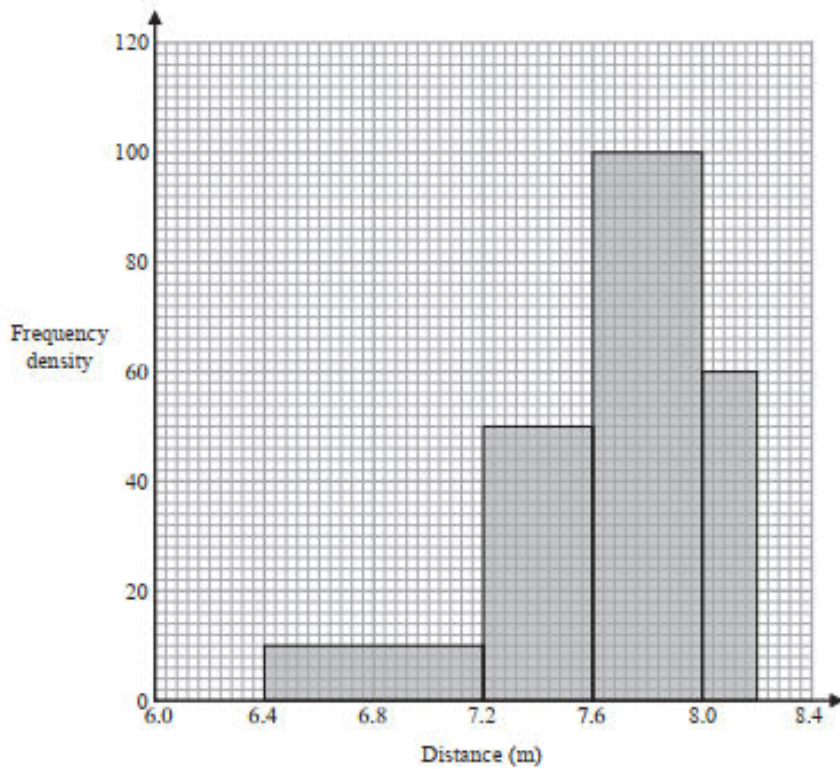
Calculate the mean age of all 45 boys and girls.

.... years

(Total for Question 7 is 3 marks)

Pearson Edexcel – Monday 8 June 2020 - Paper 3 (Calculator) Higher Tier

2.

17 The histogram gives information about the distances 80 competitors jumped in a long jump competition.

Calculate an estimate for the mean distance.

.... m

(Total for Question 17 is 4 marks)

Pearson Edexcel - Tuesday 21 May 2019 - Paper 1 (Non-Calculator) Higher Tier

3.

11 A bus company recorded the ages, in years, of the people on coach A and the people on coach B.

Here are the ages of the 23 people on coach A.

41	42	44	48	52	53	53	53	56	57	57	59
60	61	63	64	64	66	67	69	74	77	79

(a) Complete the table below to show information about the ages of the people on coach A.

Median	
Lower quartile	
Upper quartile	
Least age	41
Greatest age	79

(2)

Here is some information about the ages of the people on coach B.

Median	70
Lower quartile	54
Upper quartile	73
Least age	42
Greatest age	85

Richard says that the people on coach A are younger than the people on coach B.

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

....

....

....

(1)

Richard says that the people on coach A vary more in age than the people on coach B.
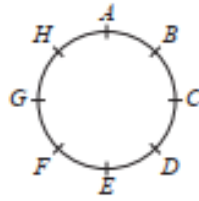
(c) Is Richard correct?
You must give a reason for your answer.

....

....

....

(1)

(Total for Question 11 is 4 marks)

Pearson Edexcel - Monday 6 November 2017 - Paper 2 (Calculator) Higher Tier

4.

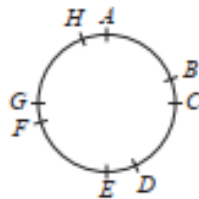**3** Hasmeet walks once round a circle with diameter 80 metres.

There are 8 points equally spaced on the circumference of the circle.

(a) Find the distance Hasmeet walks between one point and the next point.

....m

(2)

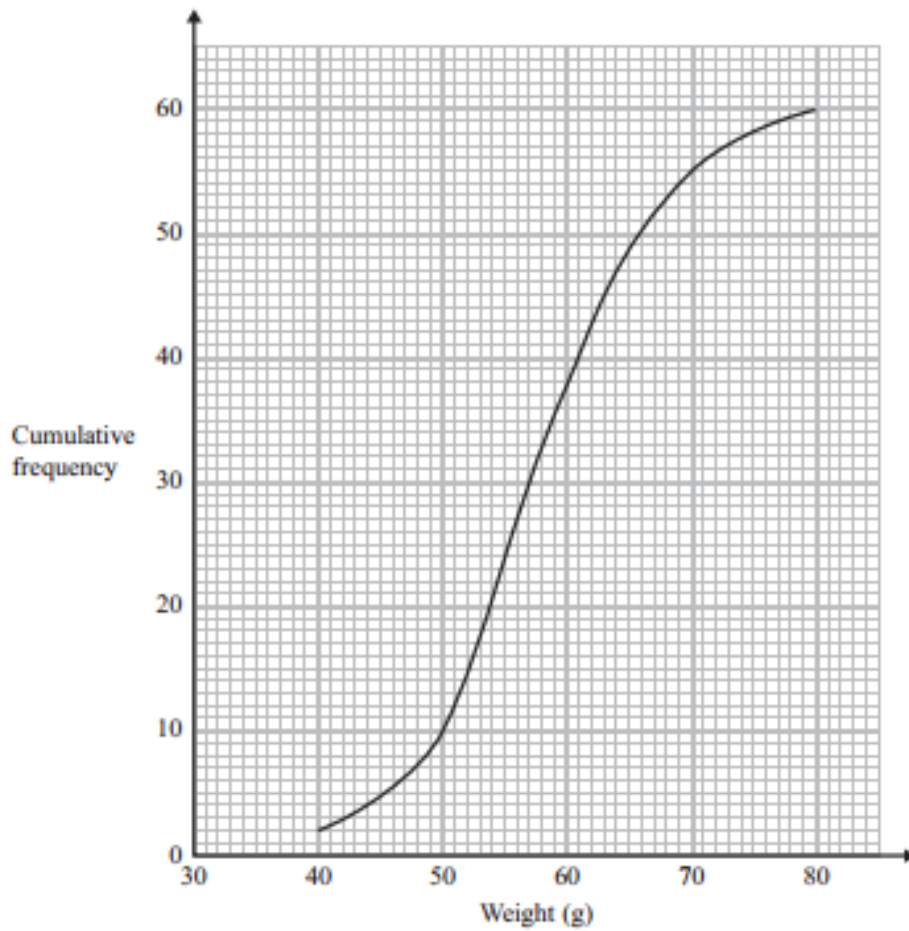Four of the points are moved, as shown in the diagram below.

Hasmeet walks once round the circle again.

(b) Has the mean distance that Hasmeet walks between one point and the next point changed?
    You must give a reason for your answer.

....

....

(1)

(Total for Question 3 is 3 marks)

Pearson Edexcel - Wednesday 8 November 2017 - Paper 3 (Calculator) Higher Tier

5.

11 The cumulative frequency graph shows information about the weights of 60 potatoes.

Weight (g)

(a) Use the graph to find an estimate for the median weight.

.... g

(1)

Jamil says,

"80 − 40 = 40 so the range of the weights is 40 g."

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

....

....

(1)

(c) Show that less than 25% of the potatoes have a weight greater than 65 g.

(2)

(Total for Question 11 is 4 marks)

Pearson Edexcel - Thursday 25 May 2017 - Paper 1 (Non-Calculator) Higher Tier

6.

7   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.

....

(Total for Question 7 is 3 marks)

Pearson Edexcel - Tuesday 13 June 2017 - Paper 3 (Calculator) Higher Tier

7.

3 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)

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)

(Total for Question 3 is 2 marks)

Pearson Edexcel - Specimen Papers Set 2 - Paper 1 (Non-Calculator) Higher Tier

8.

13 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.

....

....

....

(Total for Question 13 is 2 marks)

Pearson Edexcel - Specimen Papers Set 1 - Paper 1 (Non-Calculator) Higher Tier

9.

9 Walkden Reds is a basketball team.

At the end of 11 games, their mean score was 33 points per game.
At the end of 10 games, their mean score was 2 points higher.

Jordan says,
"Walkden Reds must have scored 13 points in their 11th game."

Is Jordan right?
You must show how you get your answer.

....

(Total for Question 9 is 3 marks)

Pearson Edexcel - Wednesday 4 November 2015 - Paper 1 (Non-Calculator) Higher Tier

10.

13 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.

....

(Total for Question 13 is 3 marks)

Pearson Edexcel - Friday 13 June 2014 - Paper 2 (Calculator) Higher Tier

11.

20 25 students in class A did a science exam.
30 students in class B did the same science exam.

The mean mark for the 25 students in class A is 67.8
The mean mark for all the 55 students is 72.0

Work out the mean mark for the students in class B.

....

(Total for Question 20 is 3 marks)

Pearson Edexcel - Wednesday 6 November 2013 - Paper 1 (Non-Calculator) Higher Tier

12.

13 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?

....

(Total for Question 13 is 3 marks)

Pearson Edexcel - Tuesday 11 June 2013 - Paper 1 (Non-Calculator) Higher Tier

13.

6 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.

....

(Total for Question 6 is 3 marks)

Pearson Edexcel - Wednesday 13 June 2012 - Paper 2 (Calculator) Higher Tier

14.

13 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.

.... minutes

(Total for Question 13 is 4 marks)

Pearson Edexcel - Monday 5 March 2012 - Paper 4 (Calculator) Higher Tier

15.

2. A rugby team played six games.
    The mean score for the six games is 14.5

    The rugby team played one more game.
    The mean score for all seven games is 16

    Work out the number of points the team scored in the seventh game.

.... points

(Total 2 marks)

Pearson Edexcel - Friday 10 June 2011 - Paper 4 (Calculator) Higher Tier

16.

11. Bianca asked 32 women about the number of children they each had.

The table shows information about her results.

Number of children	Frequency	
0	9	
1	6	
2	7	
3	8	
4	2	
more than 4	0	

(a) Find the mode.

....
(1)

(b) Calculate the mean.

....
(3)

(Total 4 marks)

Pearson Edexcel - Tuesday 10 November 2009 - Paper 4 (Calculator) Higher Tier

17.

18. The table shows some information about the heights (h cm) of 100 students.

Height (h cm)	Frequency		
$120 \leqslant h < 130$	8		
$130 \leqslant h < 140$	16		
$140 \leqslant h < 150$	25		
$150 \leqslant h < 160$	30		
$160 \leqslant h < 170$	21		

(a) Find the class interval in which the median lies.

....

(1)

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

.... cm

(4)

(Total 5 marks)

OCR GSCE – Tuesday 3 November 2020 – Paper 4 (Calculator) Higher Tier

18.

2 James is taking three examination papers in Spanish.
Here are his first two results.

Paper 1: $\dfrac{43}{80}$ Paper 2: $\dfrac{38}{65}$

Paper 3 is out of 95.
The marks in each of the three papers are added together.

Find the lowest mark that James needs in Paper 3 to achieve 60% of the total marks.

19.