AVERAGES

Pearson Edexcel - Sample Paper 1 - (Non-Calculator) Higher Tier

1.

4 Gary drove from London to Sheffield.
It took him 3 hours at an average speed of 80km/h.

Lyn drove from London to Sheffield.
She took 5 hours.

Assuming that Lyn
drove along the same roads as Gary
and did not take a break,

(a) work out Lyn's average speed from London to Sheffield.

.....km/h
(3)

(b) If Lyn did **not** drive along the same roads as Gary, explain how this could affect your answer to part (a).

.....

.....

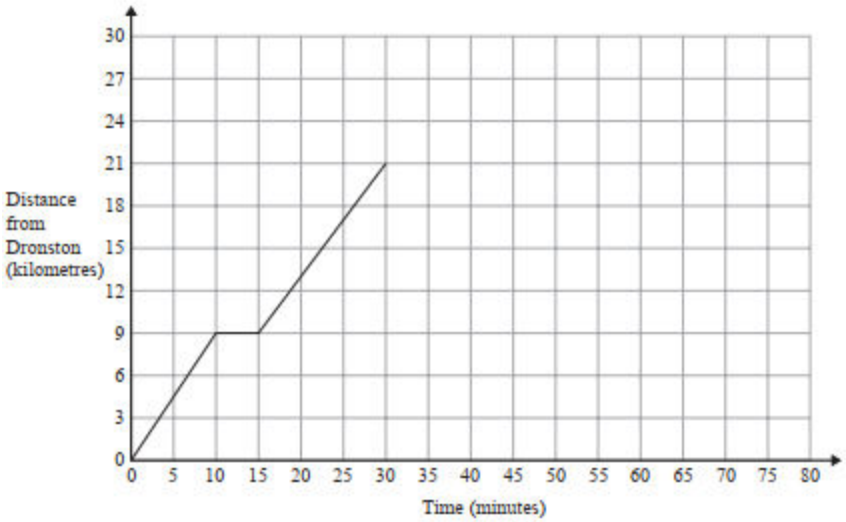
(1)

(Total for Question 4 is 4 marks)

Pearson Edexcel - Friday 6 November 2015 - Paper 2 (Calculator) Higher Tier

2.

10 A coach travels from Dronston to Luscoe.
The travel graph for this journey is shown below.



(a) Work out the average speed of the coach, in kilometres per hour, for the first 10 minutes of the journey.

..... km/h
(2)

The coach stops in Luscoe for 15 minutes.
The coach then returns to Dronston at a constant speed of 42km/h.

(b) Show this information on the travel graph.

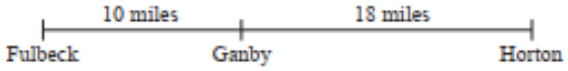
(3)

(Total for Question 10 is 5 marks)

Pearson Edexcel - Thursday 4 June 2015 - Paper 1 (Non-Calculator) Higher Tier

3.

14 The distance from Fulbeck to Ganby is 10 miles.
The distance from Ganby to Horton is 18 miles.



Raksha is going to drive from Fulbeck to Ganby.
Then she will drive from Ganby to Horton.

Raksha leaves Fulbeck at 10 00
She drives from Fulbeck to Ganby at an average speed of 40 mph.

Raksha wants to get to Horton at 10 35

Work out the average speed Raksha must drive at from Ganby to Horton.

..... mph

(Total for Question 14 is 3 marks)

Pearson Edexcel - Friday 7 November 2014 - Paper 2 (Calculator) Higher Tier

4.

*23 A road is 4530 m long, correct to the nearest 10 metres.
Kirsty drove along the road in 205 seconds, correct to the nearest 5 seconds.

The average speed limit for the road is 80 km/h.

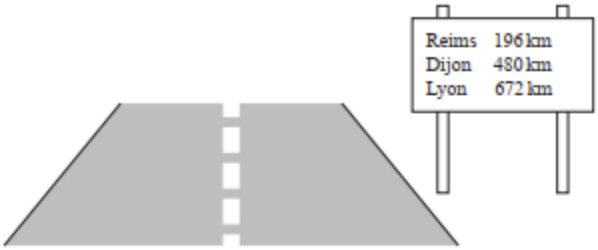
Could Kirsty's average speed have been greater than 80 km/h?
You must show your working.

(Total for Question 23 is 5 marks)

Pearson Edexcel - Monday 9 June 2014 - Paper 1 (Non-Calculator) Higher Tier

5.

14 Emily is driving in France.
She sees this sign.



Emily is going to drive to Dijon.
She plans to drive at an average speed of 50 miles per hour.

Work out how long it should take Emily to drive to Dijon.

.....

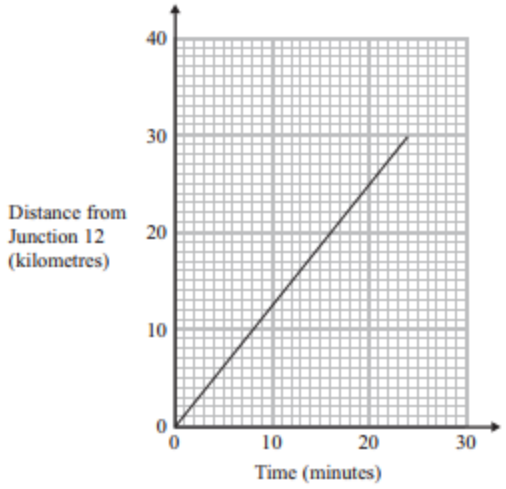
(Total for Question 14 is 4 marks)

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

6.

11 Debbie drove from Junction 12 to Junction 13 on a motorway.

The travel graph shows Debbie's journey.



Ian also drove from Junction 12 to Junction 13 on the same motorway.
He drove at an average speed of 66 km/hour.

Who had the faster average speed, Debbie or Ian?
You must explain your answer.

(Total for Question 11 is 4 marks)

Pearson Edexcel - Monday 4 March 2013 - Paper 2 (Calculator) Higher Tier

7.

7 Peter goes for a walk.
He walks 15 miles in 6 hours.

(a) Work out Peter's average speed.
Give your answer in miles per hour.

..... mph
(2)

5 miles = 8 km.
Sunita says that Peter walked more than 20 km.

*(b) Is Sunita right?
You must show all your working.

(2)

(Total for Question 7 is 4 marks)

Pearson Edexcel - Friday 12 November 2010 - Paper 4 (Calculator) Higher Tier

8.

13. A family went on holiday to Miami.
They travelled from London by plane.

The distance from London to Miami is 7120 km.
The plane journey took 8 hours.

Calculate the average speed of the plane.

.....km/h

(Total 2 marks)

OCR GSCE – Tuesday 12 June 2018 – Paper 6 (Calculator) Higher Tier

9.

1 Ping chooses four numbers.

The mode of these four numbers is 8, the range is 7 and the mean is 11.

Find Ping's four numbers.

..... , ... , ... , ... **[3]**

OCR GSCE – Thursday 8 June 2017 – Paper 5 (Non - Calculator) Higher Tier

10.

6 Jenny played four games of golf.
For these games her modal score was 76 and her mean score was 75.
Her range of scores was 10.

What were her scores for the four games?

.... **[4]**

AQA GSCE – Thursday 8 June 2020 – Paper 3 (Calculator) Higher Tier

11.

12 Here is some information about 26 houses.

a, b and c are all **different** numbers.

Number of bedrooms	Number of houses
1	7
2	a
3	b
4	c
5	8

The median number of bedrooms is 3.5

Work out a possible set of values for a, b and c.

[3 marks]

$a =$ _____

$b =$ _____

$c =$ _____

AQA GSCE – Monday 12 November 2018 – Paper 3 (Calculator) Higher Tier

12.

14 The mean mass of a squad of 19 hockey players is 82 kg

A player of mass 93 kg joins the squad.

Work out the mean mass of the squad now.

[3 marks]

Answer _____ kg

AQA GSCE – Monday 24 May 2018 – Paper 1 (Non - Calculator) Higher Tier

13.

9 The range of a set of numbers is $15\frac{1}{4}$

The smallest number is $-2\frac{7}{8}$

Work out the largest number.

[3 marks]

Answer _____

AQA GSCE – Thursday 7 June 2018 – Paper 2 (Calculator) Higher Tier

14.

15 100 men and 100 women took a test.

Scores

	Median	Interquartile range	Range
Men	28	7.5	31
Women	30	9	37

Using this data, which statement **must** be true?

Tick **one** box.

[1 mark]

- ☐ Men had a higher average score than women
- ☐ Men had more consistent scores than women
- ☐ A woman had the highest score
- ☐ A man had the lowest score

AQA GSCE – Thursday 2 November 2017 – Paper 1 (Non - Calculator) Higher Tier

15.

9 Circle the expression for the range of n consecutive integers.

[1 mark]

$\frac{n+1}{2}$ $n-1$ n $n+1$

AQA GSCE – Thursday 2 November 2017 – Paper 1 (Non - Calculator) Higher Tier

16.

20 In one month, the number of hours of exercise taken by 10 people are

4 7 2 8 6 5 1 82 3 9

Which is the appropriate average to use in this situation?

Tick a box.

☐ Mean ☐ Median ☐ Mode

Give one reason for each of the other two averages as to why they are **not** appropriate.

[2 marks]

Reason 1 _____

_____

Reason 2 _____

_____

AQA GSCE – Thursday 6 November 2017 – Paper 2 (Calculator) Higher Tier

17.

12 The table shows information about the UK and Germany.

	Population	**Area (square miles)**
UK	64 000 000	95 000
Germany	82 000 000	140 000

$$\text{Population density} = \frac{\text{population}}{\text{area}}$$

Compare the population densities of the UK and Germany.

[3 marks]

AQA GSCE – Tuesday 13 June 2017 – Paper 3 (Calculator) Higher Tier

18.

13 In a class of 28 students

the mean height of the 12 boys is 1.58 metres

the mean height of all 28 students is 1.52 metres.

Work out the mean height of the girls.

[4 marks]

Answer _____ metres