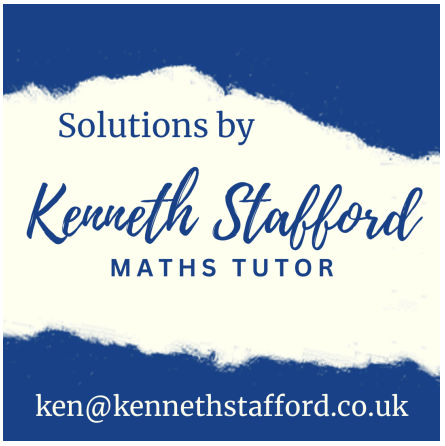
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GCSE (1 - 9)

Real Life Graphs



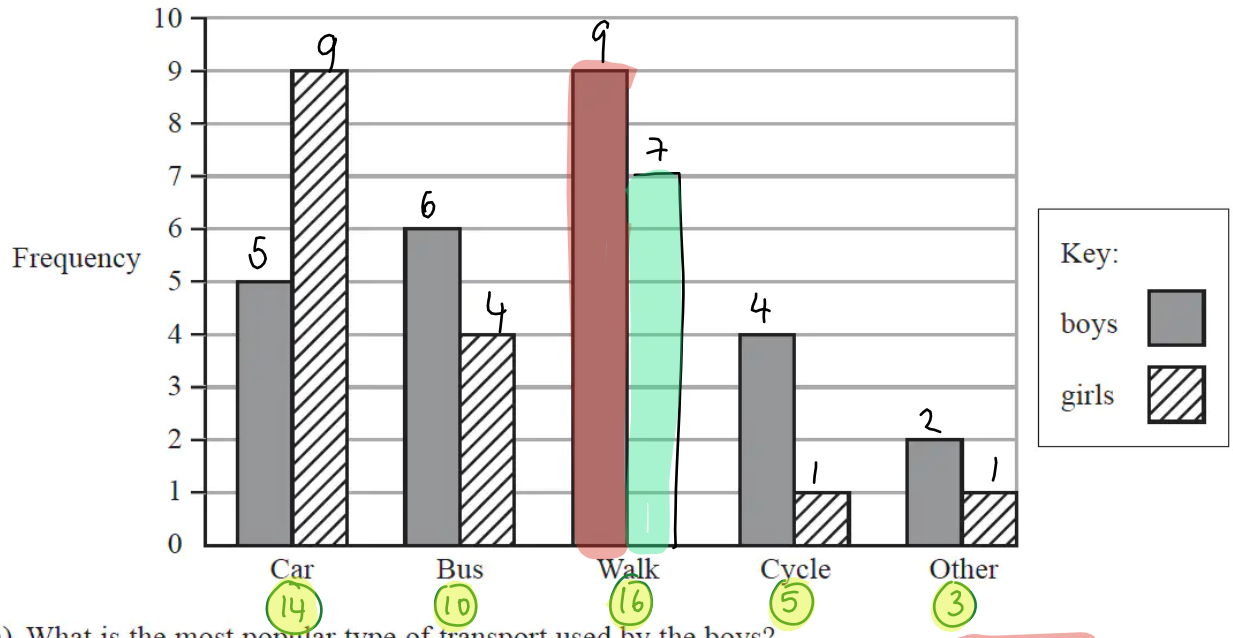


These questions are compiled from *released* Pearson Edexcel GCSE maths exam papers
They contain exam questions from up until the ***Summer 2023*** exam series
More recent exam papers do exist but are withheld for mock exams
As new exam papers are released these worksheets will gradually be updated
The ***most current*** version of these worksheets will always be available at: kennethstafford.co.uk

Question	Where the question appeared	Question	Where the question appeared
1	Edexcel, GCSE, Summer 2017, Paper 2F, Q3	17	Edexcel, GCSE, Summer 2022, Paper 2F, Q9
2	Edexcel, GCSE, Summer 2017, Paper 2F, Q11		
3	Edexcel, GCSE, Autumn 2017, Paper 2F, Q8		
4	Edexcel, GCSE, Summer 2018, Paper 1F, Q12		
5	Edexcel, GCSE, Autumn 2018, Paper 1F, Q12		
6	Edexcel, GCSE, Autumn 2018, Paper 3F, Q23		
7	Edexcel, GCSE, Summer 2019, Paper 1F, Q7		
8	Edexcel, GCSE, Summer 2019, Paper 3F, Q27		
9	Edexcel, GCSE, Autumn 2019, Paper 1F, Q16		
10	Edexcel, GCSE, Autumn 2019, Paper 2F, Q11		
11	Edexcel, GCSE, Autumn 2020, Paper 3F, Q6		
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13	Edexcel, GCSE, Autumn 2020, Paper 3F, Q18		
14	Edexcel, GCSE, Summer 2023, Paper 3F, Q13		
15	Edexcel, GCSE, November 2022, Paper 2F, Q6		
16	Edexcel, GCSE, November 2022, Paper 2F, Q19		

1

A teacher asks the students in Year 6 what type of transport they use to get to school.
The dual bar chart shows some of the results.



(a) What is the most popular type of transport used by the boys?

Walk

(1)

7 girls walk to school.

(b) Show this information on the dual bar chart.

(1)

More of the students get to school by car than by bus.

(c) How many more?

Car = 5+9 = 14

Bus = 6+4 = 10

14 − 10 = 4

(1)

The number of students in Year 5 is the same as the number of students in Year 6

(d) What is the total number of students in Years 5 and 6?

14 + 10 + 16 + 5 + 3 = 48 (Year 5)

48 x 2 = 96

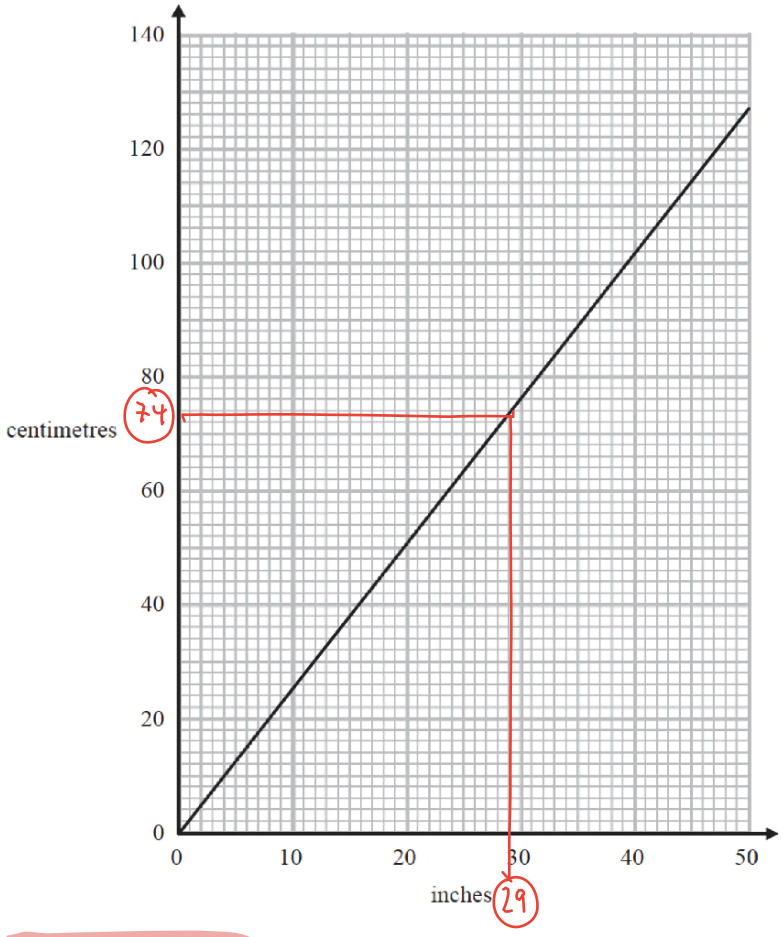
(2)

(Total for Question 3 is 5 marks)

[Edexcel, GCSE, Summer 2017, Paper 2F, Q3]

2

You can use this graph to change between inches and centimetres.



(a) Change 74 cm to inches.

29 ..... inches

(1)

Daniel's height is 6 feet 3 inches.

1 foot = 12 inches

(b) What is Daniel's height in centimetres?

6 x 12 + 3 = 75 inches

25 inches = 64cm (x3)

75 inches = 192cm (x3)

..... centimetres

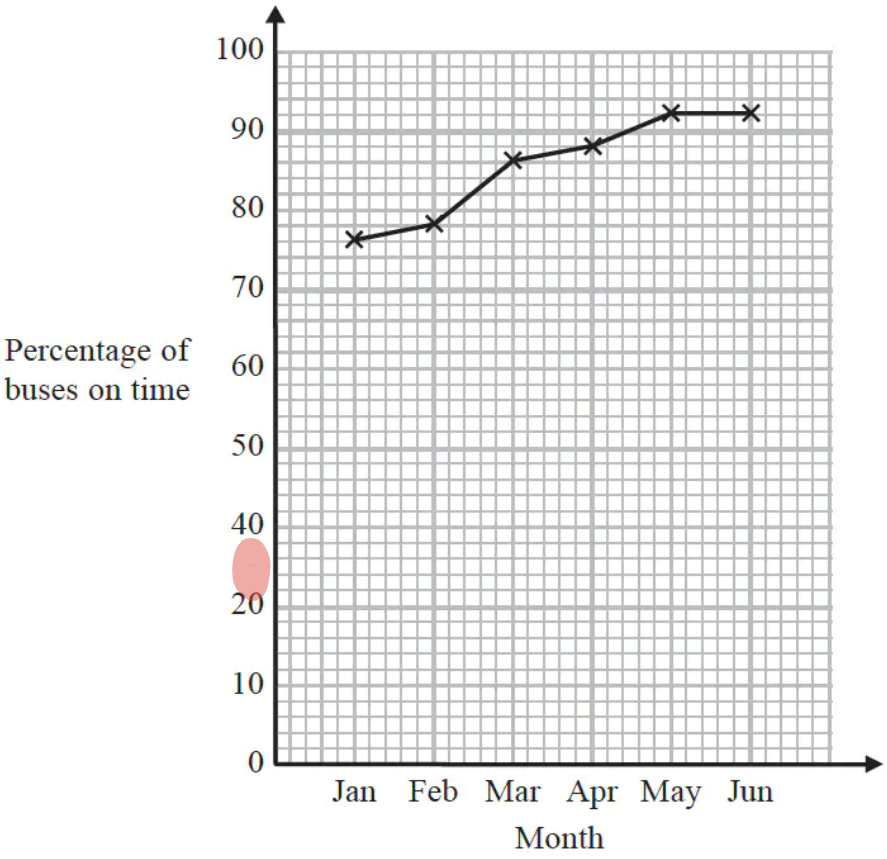
(3)

(Total for Question 11 is 4 marks)

[Edexcel, GCSE, Summer 2017, Paper 2F, Q11]

3

Chrissy drew this graph to show the percentage of buses that got to a bus stop on time for six months.



(a) Write down **one** thing that is wrong with the graph.

Missing "30" from the percentage axis.

(1)

(b) Describe the trend in the percentage of buses that got to the bus stop on time.

The trend is that the percentage of busses on time is increasing. Positive trend.

(1)

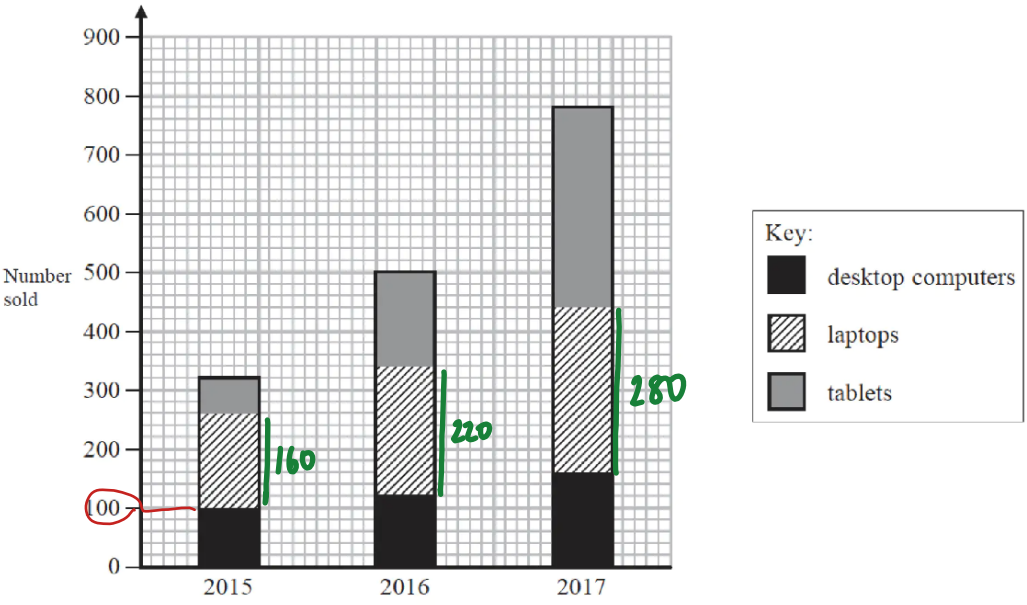
(Total for Question 8 is 2 marks)

[Edexcel, GCSE, Autumn 2017, Paper 2F, Q8]

4

A shop sells desktop computers, laptops and tablets.

The composite bar chart shows information about sales over the last three years.



(a) Write down the number of desktop computers sold in 2015

100

(1)

(b) Work out the total number of laptops sold in the 3 years.

160 + 220 + 280 = 660

(3)

(c) State the item that had the greatest increase in sales over the 3 years.
Give a reason for your answer.

Tablets. Bars get proportionally longer over time.

(2)

Alex says,

"In 2017, more tablets were sold than desktop computers. This means the shop makes more profit from the sale of tablets than from the sale of desktop computers."

(d) Is Alex correct?
You must justify your answer.

No. We don't know prices, costs or profits per item.

(1)

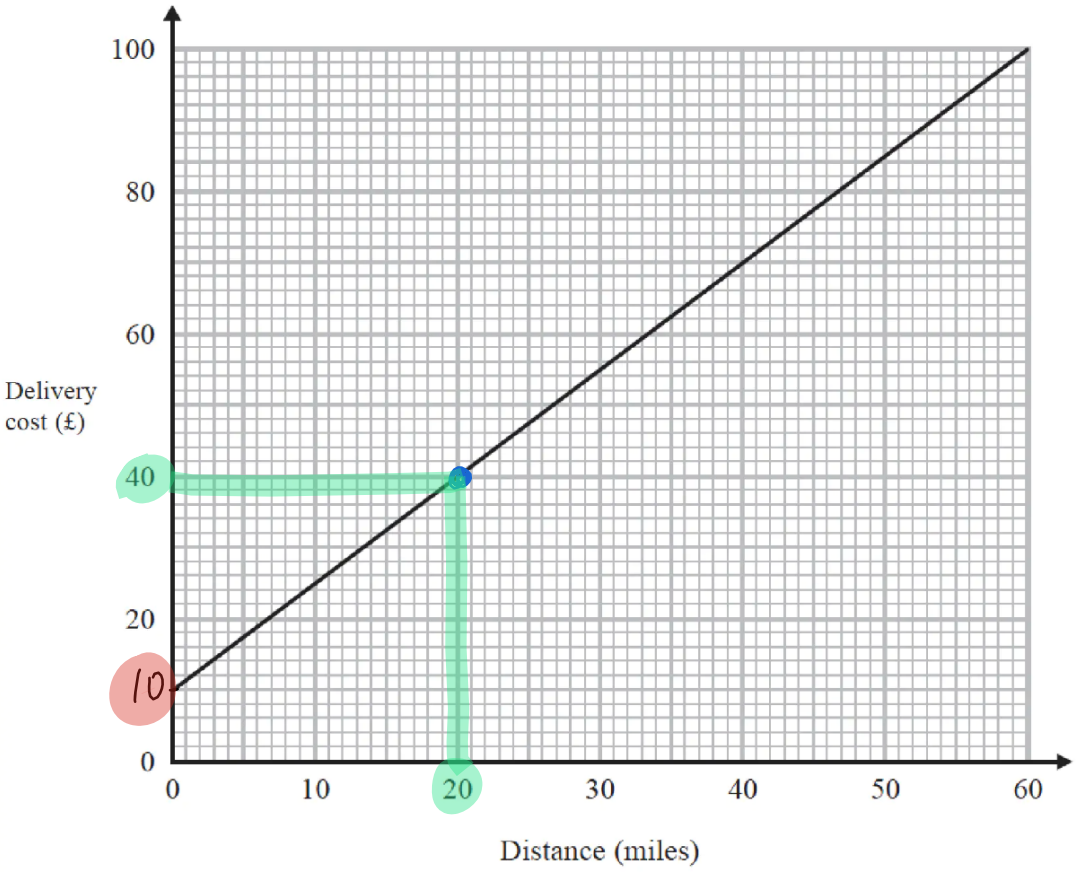
(Total for Question 12 is 7 marks)

[Edexcel, GCSE, Summer 2018, Paper 1F, Q12]

5

Tom uses his lorry to deliver bricks.

You can use this graph to find the delivery cost for different distances.



For each delivery, there is a fixed charge plus a charge for the distance.

(a) How much is the fixed charge?

£ 10

(1)

Tom makes two deliveries of bricks.
The distance of one delivery is 20 miles more than the distance of the other delivery.

(b) Work out the difference between the two delivery costs.

0 miles = £10

20 miles = £40

40 − 10 = 30

£ .....

(2)

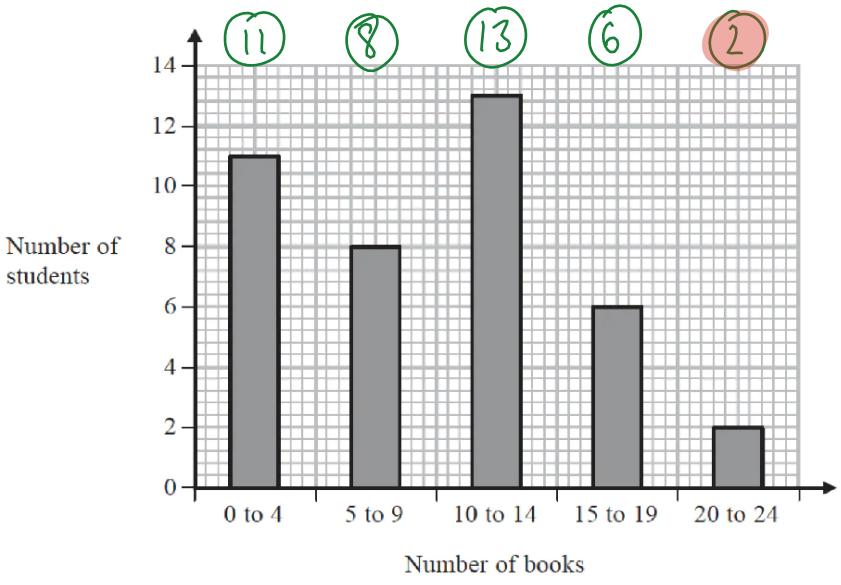
(Total for Question 12 is 3 marks)

[Edexcel, GCSE, Autumn 2018, Paper 1F, Q12]

6

Fran asks each of 40 students how many books they bought last year.

The chart below shows information about the number of books bought by each of the 40 students.



(a) Work out the percentage of these students who bought 20 or more books.

$\frac{2}{40} = \frac{1}{20} = \frac{5}{100}$

5 ..... %

(2)

(b) Show that an estimate for the mean number of books bought is 9.5
You must show all your working.

Books	Frequency		midpoint	
0 to 4	11	x	2	= 22
5 to 9	8	x	7	= 56
10 to 14	13	x	12	= 156
15 to 19	6	x	17	= 102
20 to 24	2	x	22	= 44
				380 ÷ 40 = 9.5

(4)

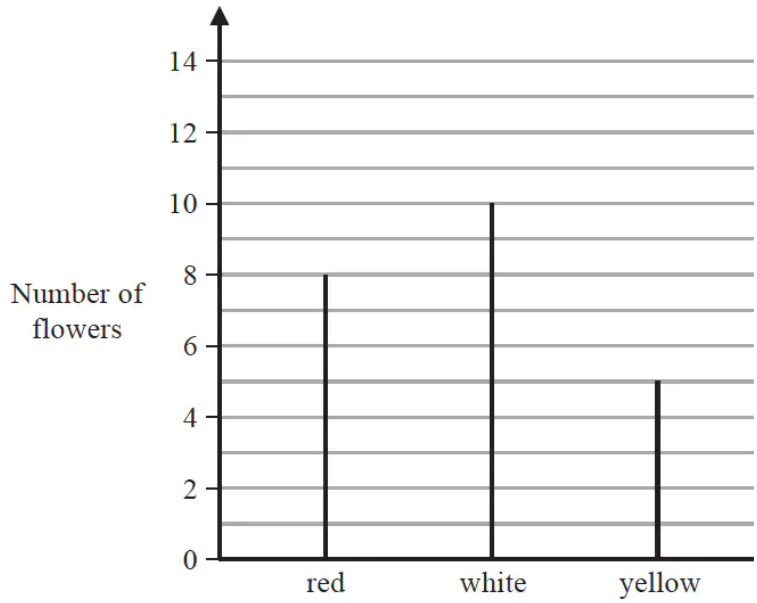
(Total for Question 23 is 6 marks)

[Edexcel, GCSE, Autumn 2018, Paper 3F, Q23]

7

In Adam's garden, the flowers are only red or white or yellow or blue.

The chart shows the number of red flowers, the number of white flowers and the number of yellow flowers.



8 + 10 + 5 = 23

The total number of flowers is 30

(a) Work out the number of blue flowers.

30 - 23 = 7

7

(2)

(b) Write down the mode.

White

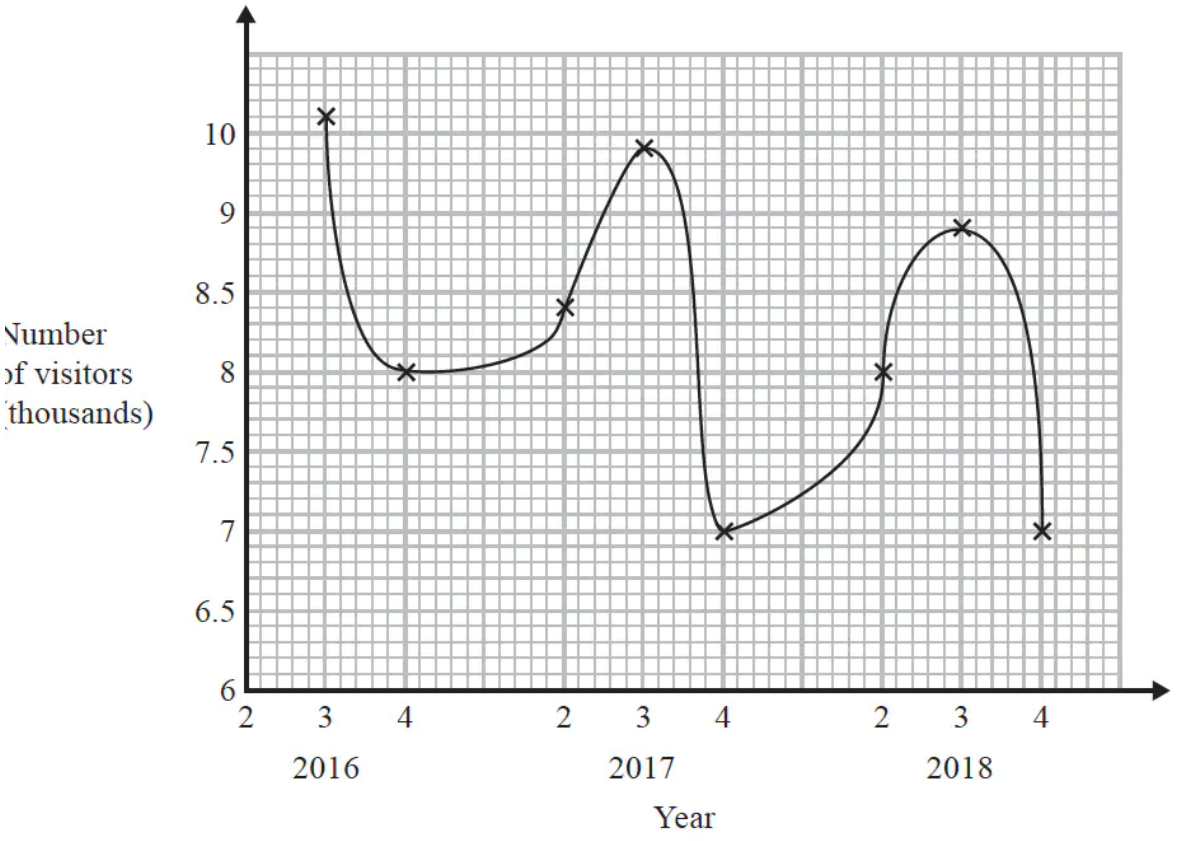
(1)

(Total for Question 7 is 3 marks)

[Edexcel, GCSE, Summer 2019, Paper 1F, Q7]

8

Sean has drawn a time series graph to show the numbers, in thousands, of visitors to a fun park.



Write down two things that are wrong or could be misleading with this graph.

(1) Should be straight lines

(2) 9.5 missing from vertical axis

(3) Visitors starts at 6.

(4) It is not clear what 2, 3 or 4 mean. (x axis)

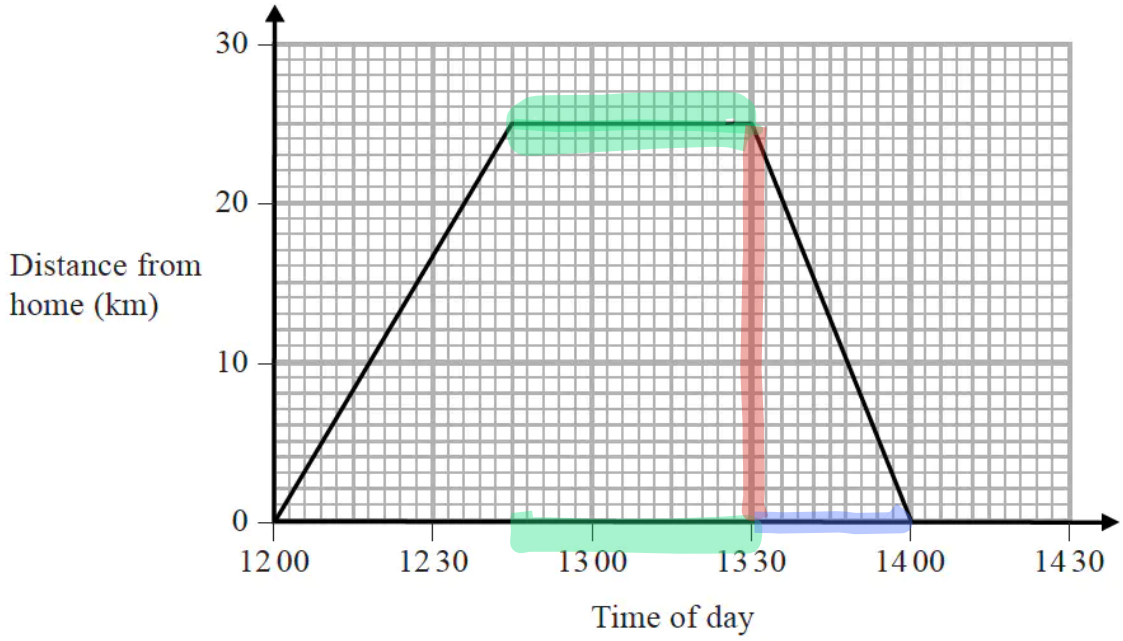
(Total for Question 27 is 2 marks)

[Edexcel, GCSE, Summer 2019, Paper 3F, Q27]

9

Steve drove from his home to his friend's house.
He stayed at his friend's house and then drove home.

Here is Steve's travel graph.



(a) For how many minutes did Steve stay at his friend's house?

45 minutes

(1)

(b) What was Steve's average speed on his journey home?

25 ÷ 0·5 = 50

30 minutes = 0·5 hours

50 km/h

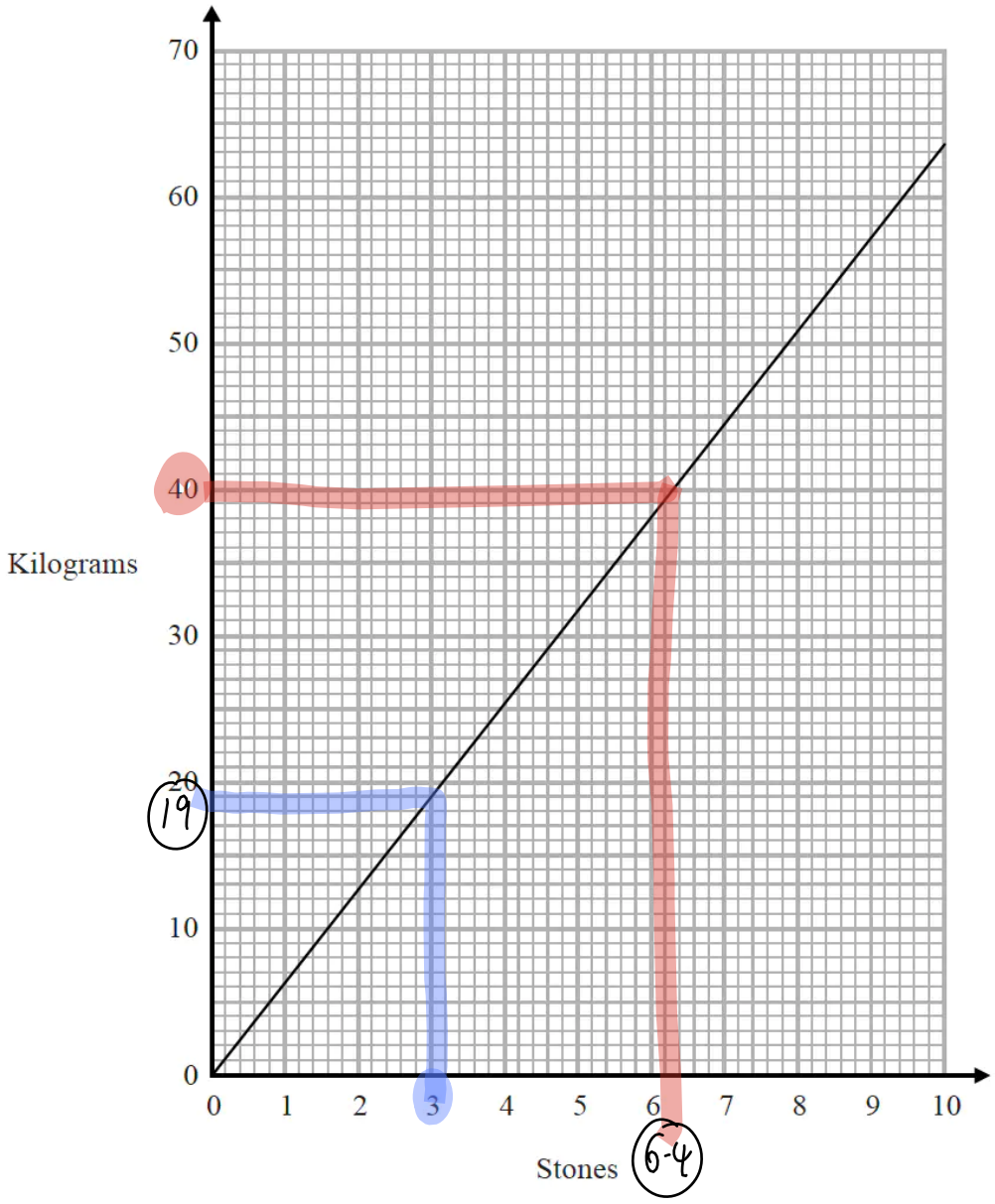
(2)

(Total for Question 16 is 3 marks)

[Edexcel, GCSE, Autumn 2019, Paper 1F, Q16]

10

You can use this graph to change between stones and kilograms.



(a) Change 3 stones to kilograms.

19 kilograms

(1)

(b) Change 80 kilograms to stones.

40kg = 6·4stones

80kg = 12·8stones

12·8 stones

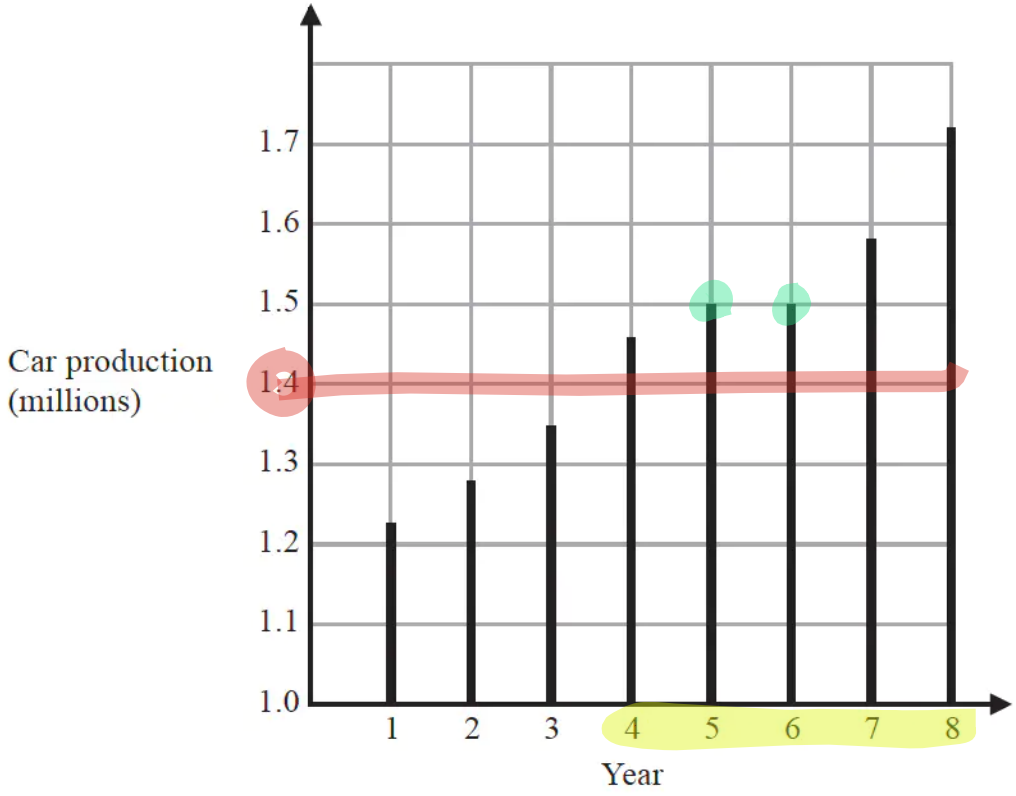
(2)

(Total for Question 11 is 3 marks)

[Edexcel, GCSE, Autumn 2019, Paper 2F, Q11]

11

The graph shows some information about car production in the UK over eight years.



(a) For how many of these years was car production more than 1.4 million?

5

(1)

(b) In which two years was car production the same?

5 , 6

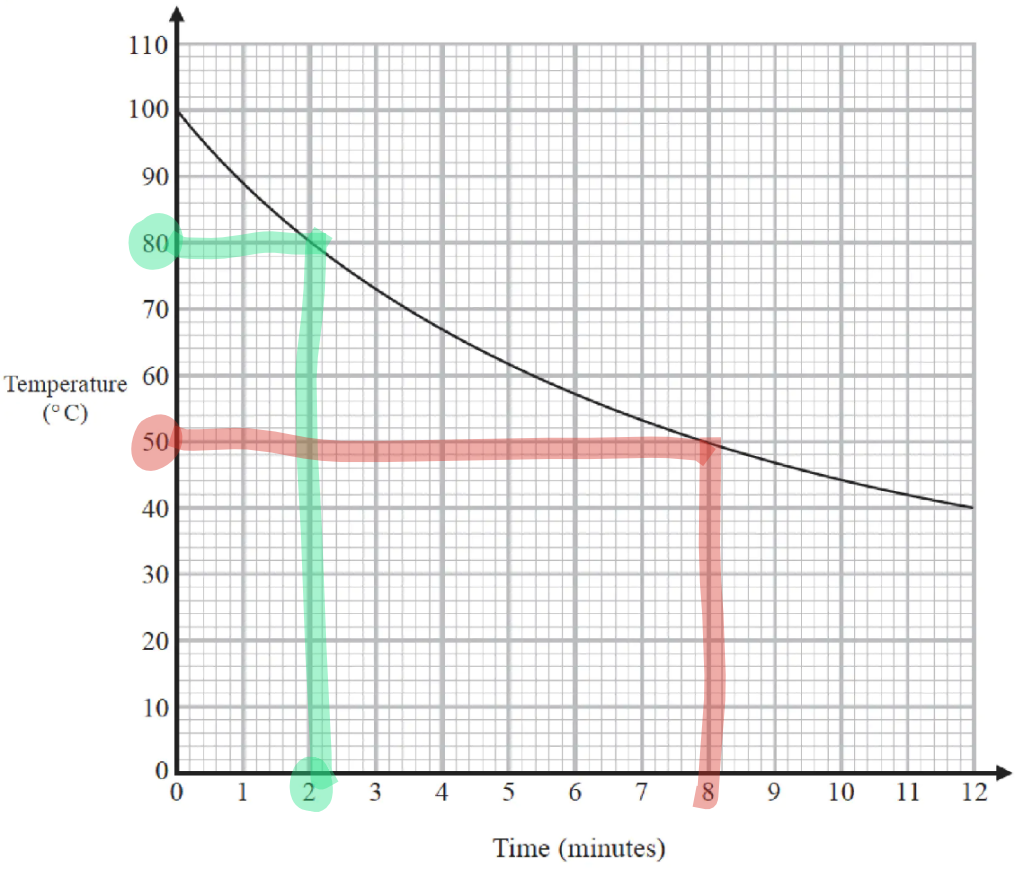
(1)

(Total for Question 6 is 2 marks)

[Edexcel, GCSE, Autumn 2020, Paper 3F, Q6]

12

The graph shows information about the time, in minutes, a liquid has been cooling and the temperature of the liquid in °C.



(a) What is the temperature of the liquid at time 2 minutes?

80 °C

(1)

Pam recorded the time when the liquid had a temperature of 50°C.

(b) Write down this time.

8 minutes

(1)

Pam says that the temperature of the liquid drops more in the first 3 minutes of cooling than it does between time 9 minutes and time 12 minutes.

(c) Is Pam correct?
Give a reason for your answer.

Yes. Drops more than 20°C in the first 3 minutes
Drops less than 20°C between 9 and 12 minutes.

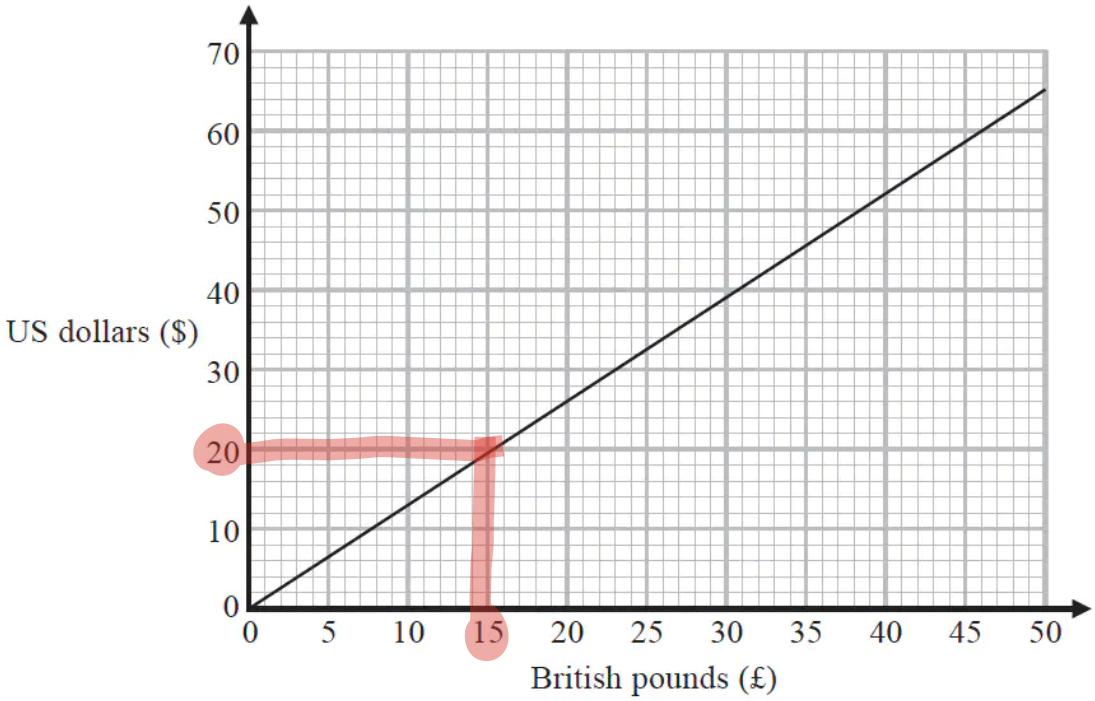
(1)

(Total for Question 10 is 3 marks)

[Edexcel, GCSE, Autumn 2020, Paper 3F, Q10]

13

This graph can be used to change between US dollars ($) and British pounds (£).



Rosie bought a ring in the USA.
She paid 345 US dollars.

Work out in pounds the amount Rosie paid for the ring.

$20 = £15
÷20
$1 = £0·75
÷20
x345
$345 = £258·75
x345

£ 258·75

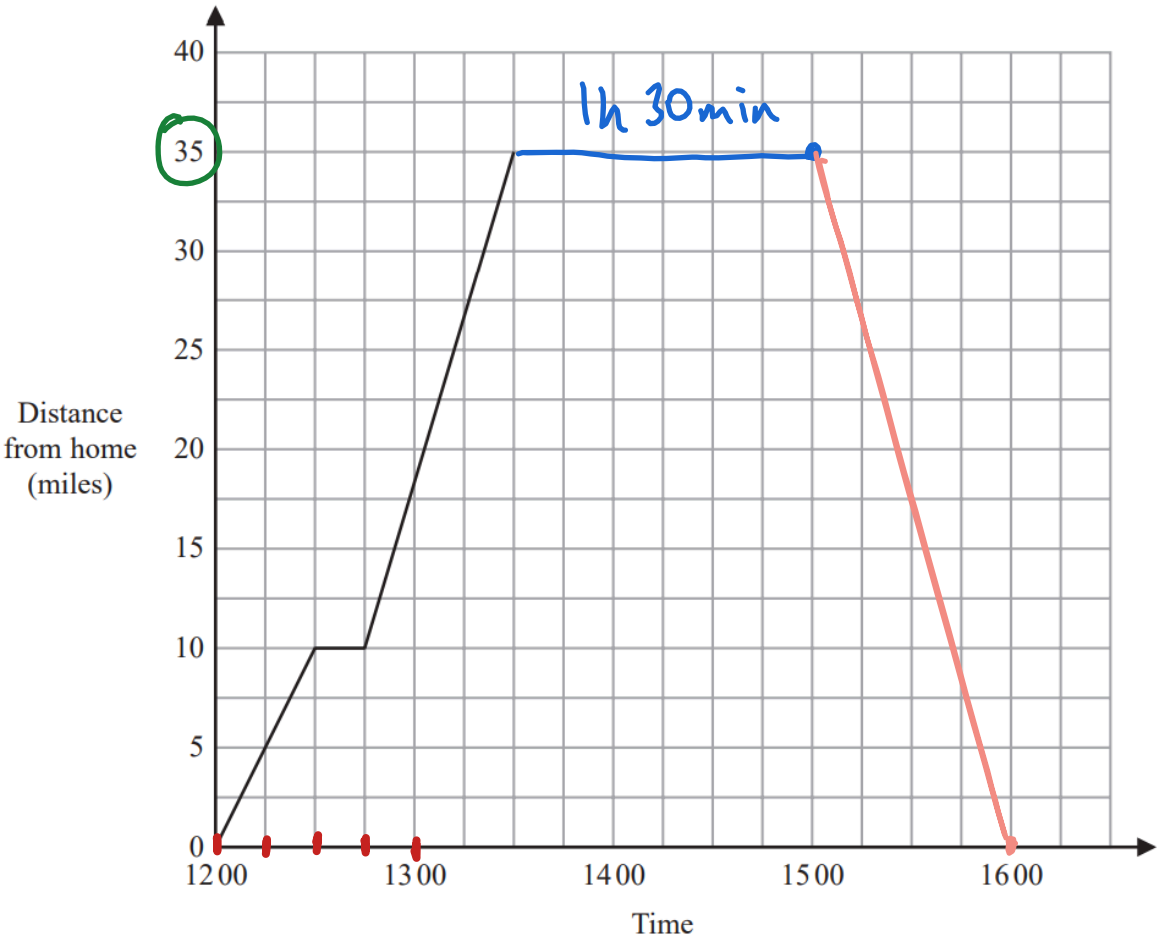
(Total for Question 18 is 3 marks)

[Edexcel, GCSE, Autumn 2020, Paper 3F, Q18]

14

13 Rowena drove from her home to a beach.

Here is a travel graph for her journey.



Rowena stopped at a cafe on her way to the beach.

(a) (i) How many minutes did Rowena take to drive to the cafe?

15 ..... minutes

(1)

(ii) Write down the distance from Rowena's home to the cafe.

35 ..... miles

(1)

Rowena stayed at the beach for $1\frac{1}{2}$ hours.

She then drove home without stopping.
Rowena arrived home at 1600

(b) On the grid, complete the travel graph.

(2)

(c) Work out the average speed for the journey from the beach to Rowena's home.

35 ..... miles per hour

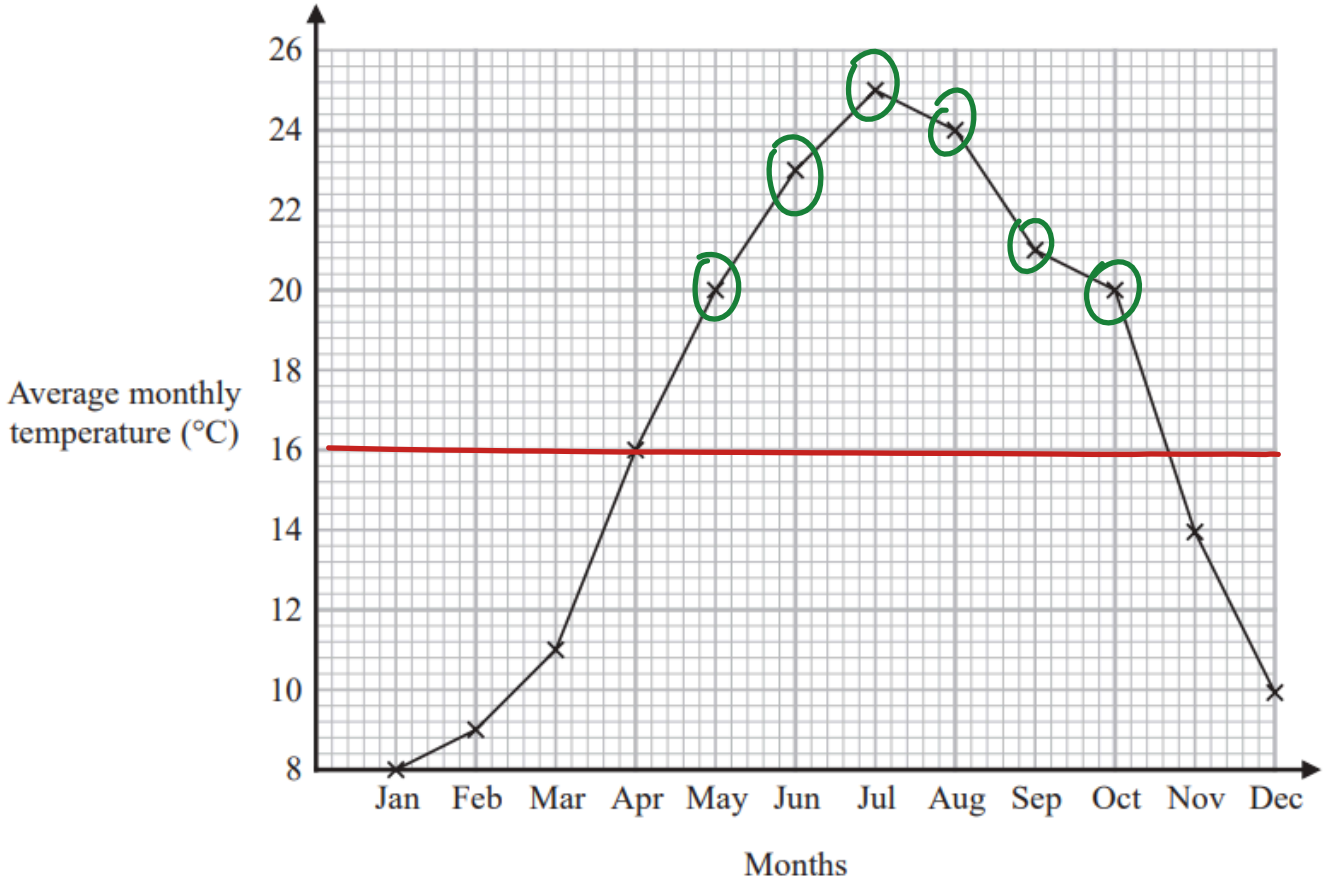
(1)

(Total for Question 13 is 5 marks)

[Edexcel, GCSE, Summer 2023, Paper 3F, Q13]

15

The graph shows information about the average monthly temperature, in °C, in Amman.



(a) For how many months was the average monthly temperature greater than 16°C?

6

(1)

(b) Write down the two months that had the same average monthly temperature.

May and October

(1)

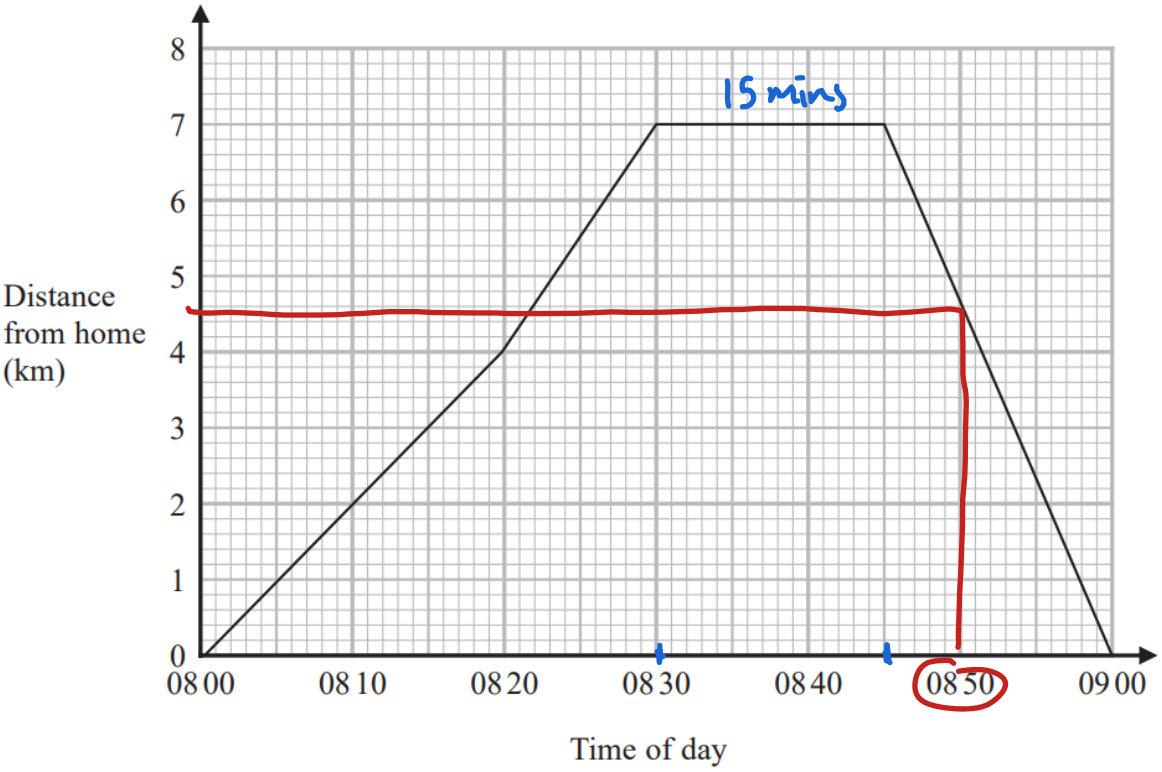
(Total for Question 6 is 2 marks)

[Edexcel, GCSE, November 2022, Paper 2F, Q6]

16

Carly cycles to her friend's house.
She stays at her friend's house for a number of minutes.
Then she cycles home.

Here is the travel graph for her journey.



(a) For how many minutes did Carly stay at her friend's house?

15 minutes

(1)

(b) How far is Carly from her home at 08 50?

4·6 km

(1)

(c) Work out Carly's speed, in km/h, for the first 20 minutes of her journey.

20 mins = 4km

60 mins = 12km

12 km/h

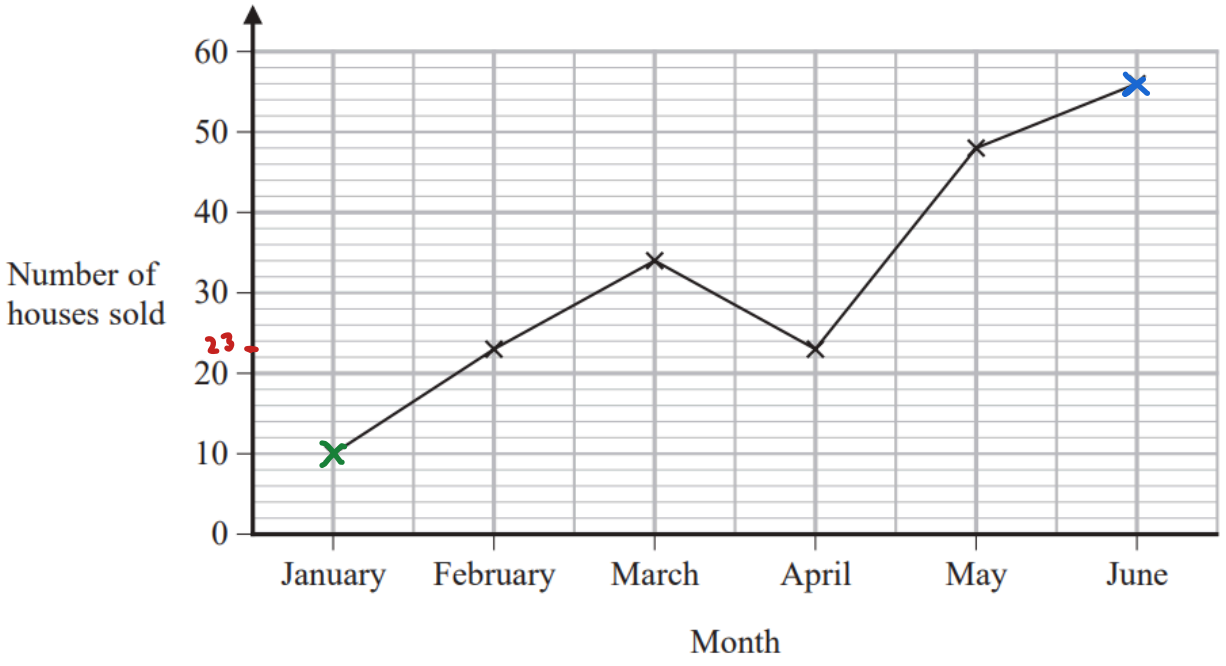
(2)

(Total for Question 19 is 4 marks)

[Edexcel, GCSE, November 2022, Paper 2F, Q19]

17

The graph shows information about the number of houses sold by an estate agent in each of six months last year.



(a) How many houses were sold by the estate agent in February?

23

(1)

(b) For this estate agent, write down the ratio of the number of houses sold in January to the number of houses sold in June.

10 : 56

(2)

(Total for Question 9 is 3 marks)

[Edexcel, GCSE, Summer 2022, Paper 2F, Q9]