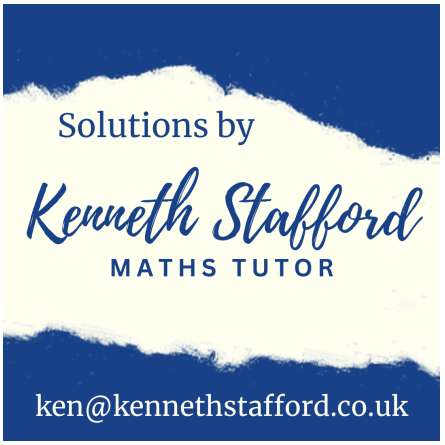
Name: SOLUTIONS

GCSE (1 - 9)

Scatter Graphs





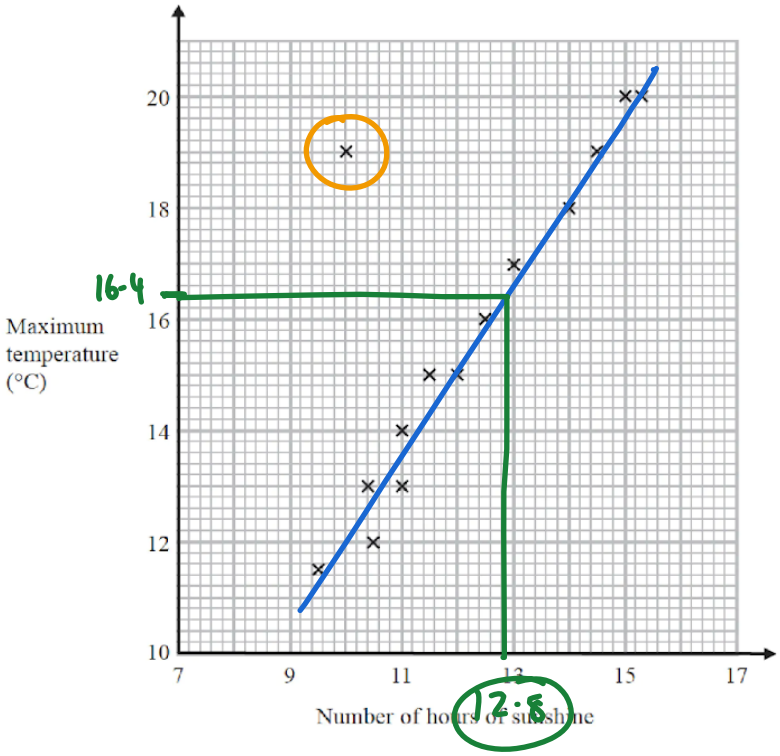
These questions are compiled from *released* Pearson Edexcel GCSE maths exam papers
They contain exam questions from up until the ***Summer 2023*** exam series
More recent exam papers do exist but are withheld for mock exams
As new exam papers are released these worksheets will gradually be updated
The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

Question	Where the question appeared
1	Edexcel, GCSE, Summer 2017, Paper 1F, Q21
2	Edexcel, GCSE, Summer 2018, Paper 3F, Q19
3	Edexcel, GCSE, Autumn 2018, Paper 2F, Q21
4	Edexcel, GCSE, Autumn 2019, Paper 3F, Q24
5	Edexcel, GCSE, Summer 2023, Paper 1F, Q25
6	Edexcel, GCSE, November 2022, Paper 2F, Q18

Scatter Graphs Questions from Past Papers

1

The scatter graph shows the maximum temperature and the number of hours of sunshine in fourteen British towns on one day.



One of the points is an outlier.

(a) Write down the coordinates of this point.

(10 , 19)

(1)

(b) For all the other points write down the type of correlation.

positive

(1)

On the same day, in another British town, the maximum temperature was 16.4 °C.

(c) Estimate the number of hours of sunshine in this town on this day.

12.8 hours

(2)

A weatherman says,

"Temperatures are higher on days when there is more sunshine."

(d) Does the scatter graph support what the weatherman says?
Give a reason for your answer.

Yes. There is a positive correlation between sunshine and temperature.

(Total for Question 21 is 5 marks)

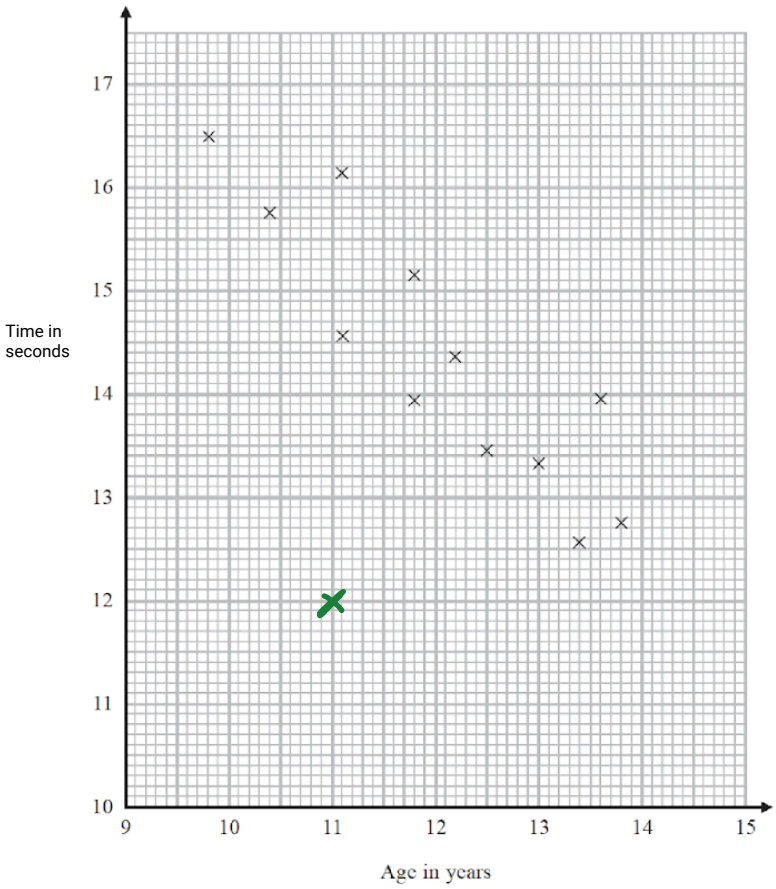
[Edexcel, GCSE, Summer 2017, Paper 1F, Q21]

Scatter Graphs Questions from Past Papers

2

The scatter diagram shows information about 12 girls.

It shows the age of each girl and the best time she takes to run 100 metres.



(a) Write down the type of correlation.

negative

(1)

Kristina is 11 years old.
Her best time to run 100 metres is 12 seconds.

The point representing this information would be an outlier on the scatter diagram.

(b) Explain why.

It doesn't fit with the correlation.

(1)

Debbie is 15 years old.
Debbie says,

"The scatter diagram shows I should take less than 12 seconds to run 100 metres."

(c) Comment on what Debbie says.

Her age is outside the range of data so we can't make a prediction.

(1)

(Total for Question 19 is 3 marks)

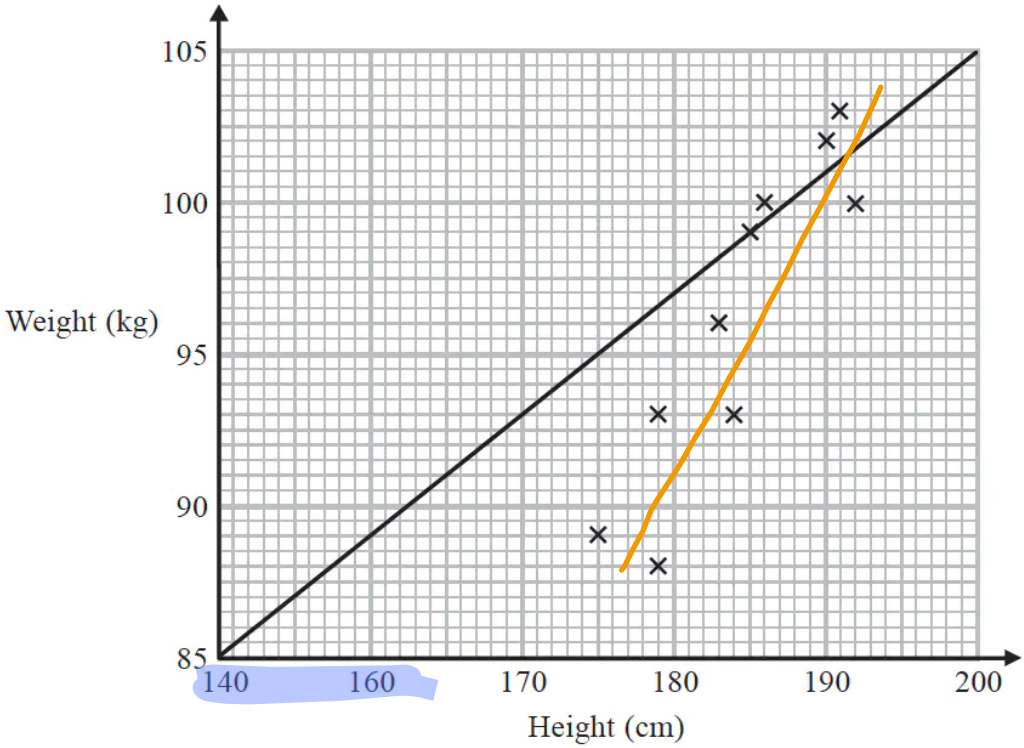
[Edexcel, GCSE, Summer 2018, Paper 3F, Q19]

3

Sean has information about the height, in cm, and the weight, in kg, of each of ten rugby players.

He is asked to draw a scatter graph and a line of best fit for this information.

Here is his answer.



Sean has plotted the points accurately.

Write down two things that are wrong with his answer.

① Line of best fit is drawn incorrectly.

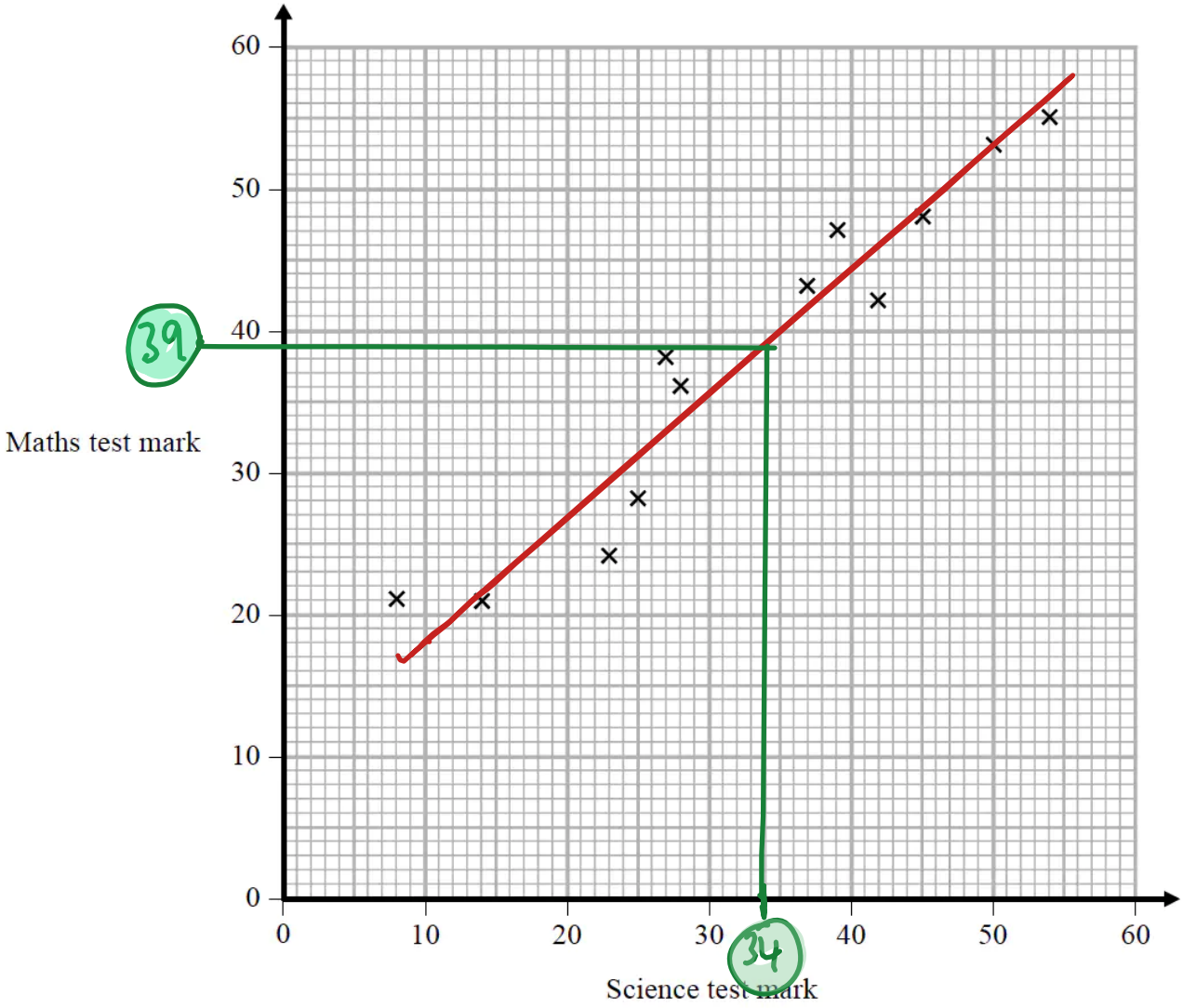
② He missed 150cm on the height axis.

(Total for Question 21 is 2 marks)

[Edexcel, GCSE, Autumn 2018, Paper 2F, Q21]

4

The scatter graph shows information about the marks a group of students got in a Science test and in a Maths test.



Jamie got a mark of 34 in the Science test.

Using the scatter graph, find an estimate for Jamie's mark in the Maths test.

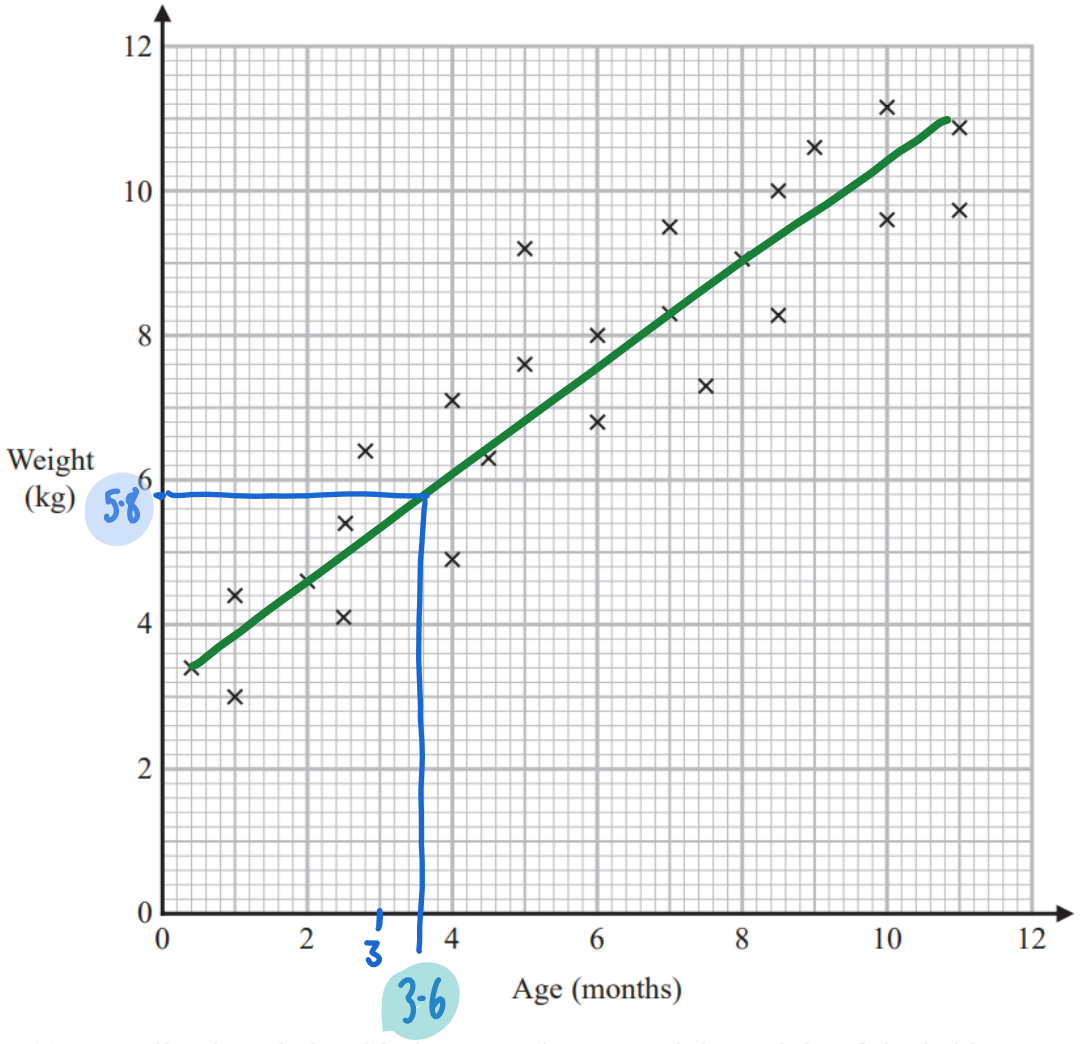
39

(Total for Question 24 is 2 marks)

[Edexcel, GCSE, Autumn 2019, Paper 3F, Q24]

5

The scatter graph shows information about the ages and weights of some babies.



(a) Describe the relationship between the age and the weight of the babies.

There is a positive correlation between the age and weight of babies

(1)

Another baby has a weight of 5.8 kg

(b) Using the scatter graph, find an estimate for the age of this baby.

3·6 months

[2·5 to 4·5]

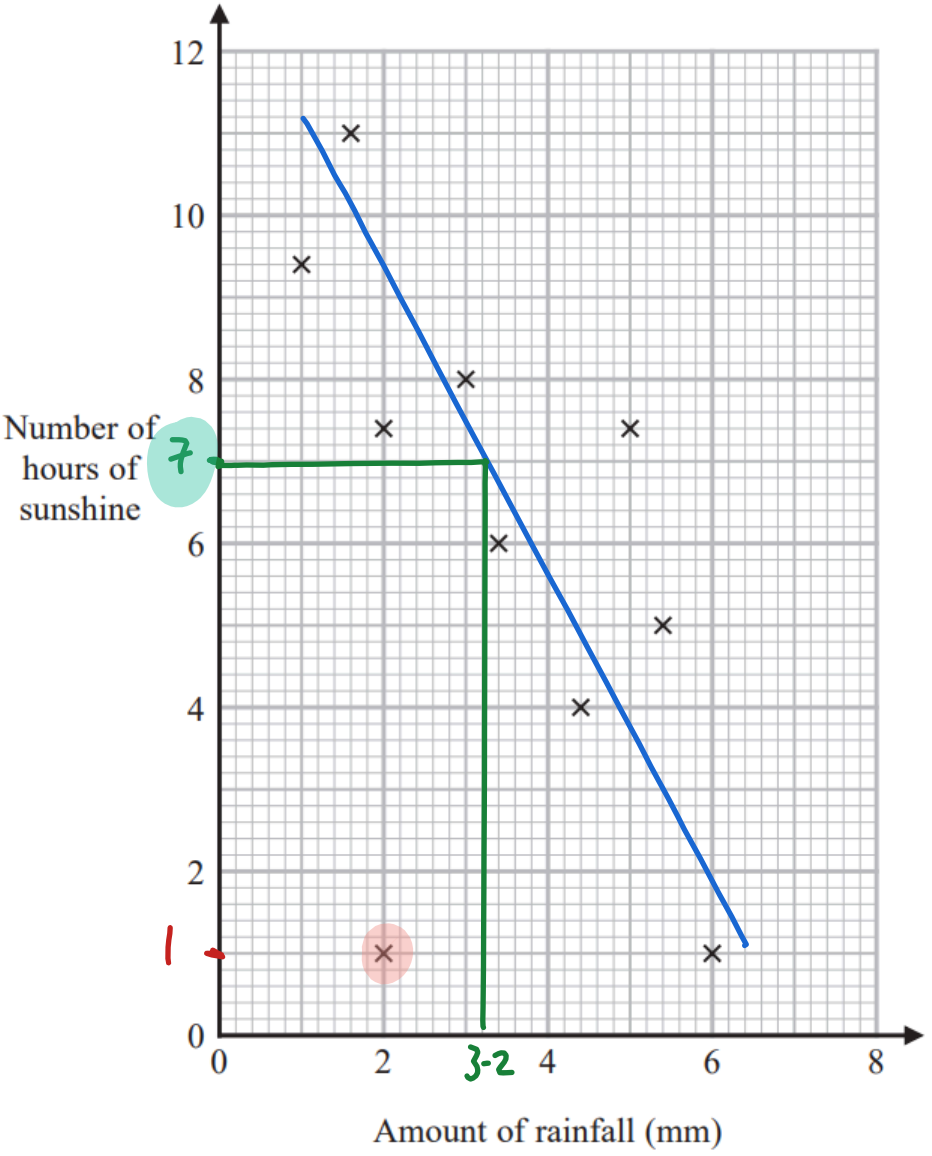
(2)

(Total for Question 25 is 3 marks)

[Edexcel, GCSE, Summer 2023, Paper 1F, Q25]

6

The scatter graph shows information about the amount of rainfall, in mm, and the number of hours of sunshine for each of ten English towns on the same day.



One of the points is an outlier.

(a) Write down the coordinates of this point.

(2 , 1)

(1)

(b) Ignoring the outlier, describe the relationship between the amount of rainfall and the number of hours of sunshine.

There is a negative correlation between the hours of sunshine and rainfall.

(1)

On the same day in another English town there were 7 hours of sunshine.

(c) Using the scatter graph, estimate the amount of rainfall in this town on this day.

3.2 mm

[3 to 4]

(2)

(Total for Question 18 is 4 marks)

[Edexcel, GCSE, November 2022, Paper 2F, Q18]