

GCSE Mathematics

F/H

Scatter Graphs and Correlation

Grades 4-6

Total Marks	Time	Questions
32	32 min	20

Instructions:

- Do not use a calculator when you see: 
- Answer all questions in the spaces provided.
- Show all your working - marks are awarded for method as well as final answers.
- Cross through any work you do not want to be marked.
- Check your answers if you have time at the end.

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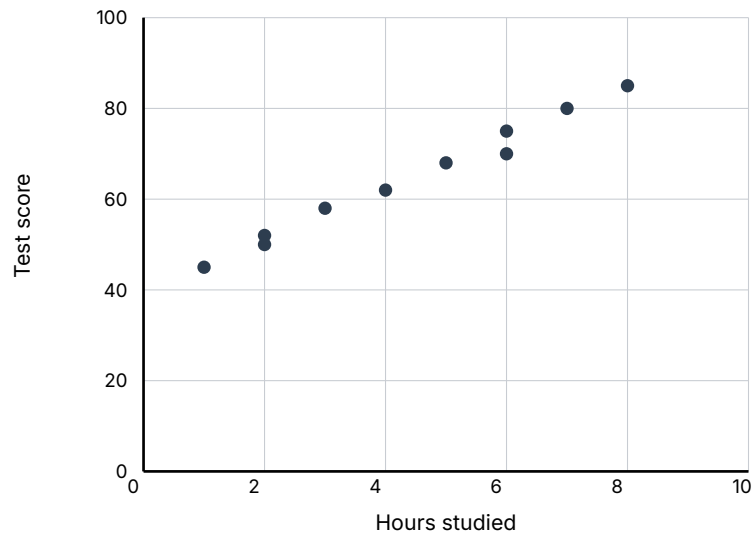
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Edexcel-style questions**Q1** 

Grade 4

Edexcel style

The scatter graph shows the number of hours studied and the test scores of 10 students.
Describe the correlation shown.



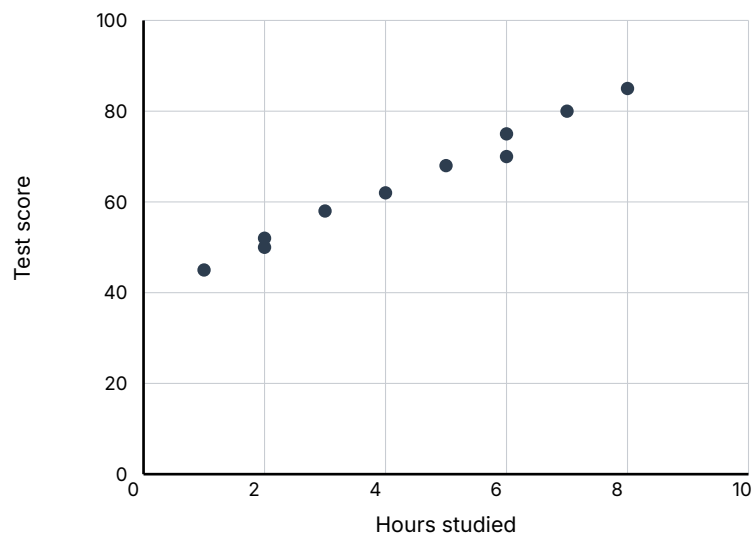
Answer _____

Q2

Grade 4

Edexcel style

One student studied for 5 hours. Use the scatter graph to find their test score.



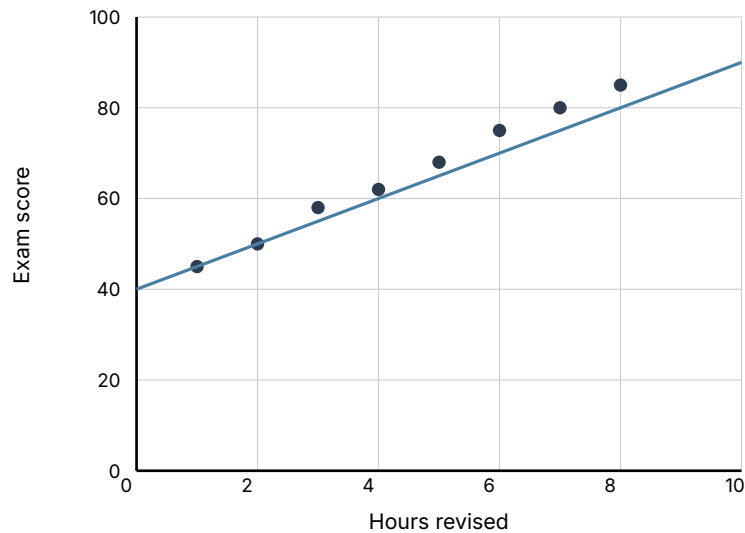
Answer _____

Q3

Grade 5

Edexcel style

The scatter graph shows the number of hours revised and exam scores, with a line of best fit drawn. Use the line of best fit to estimate the exam score for a student who revises for 6 hours.



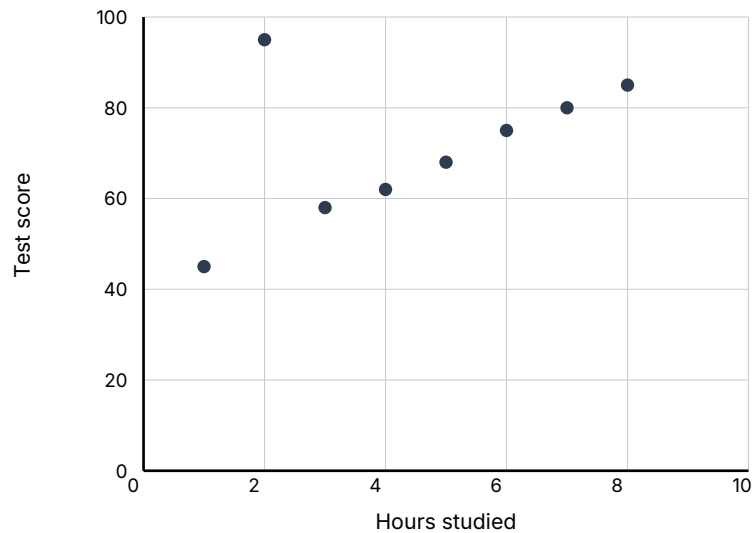
Answer _____

Q4

Grade 5

Edexcel style

The scatter graph shows hours studied and test scores. Identify the outlier and write down its coordinates.



Answer _____

teachably

[2 marks]

Q5

Grade 6

Edexcel style

A scatter graph shows a strong positive correlation between the number of ice creams sold and the number of drownings at a beach resort over a year. Does this mean that eating ice cream causes drowning? Explain your answer.

Answer _____

teachably

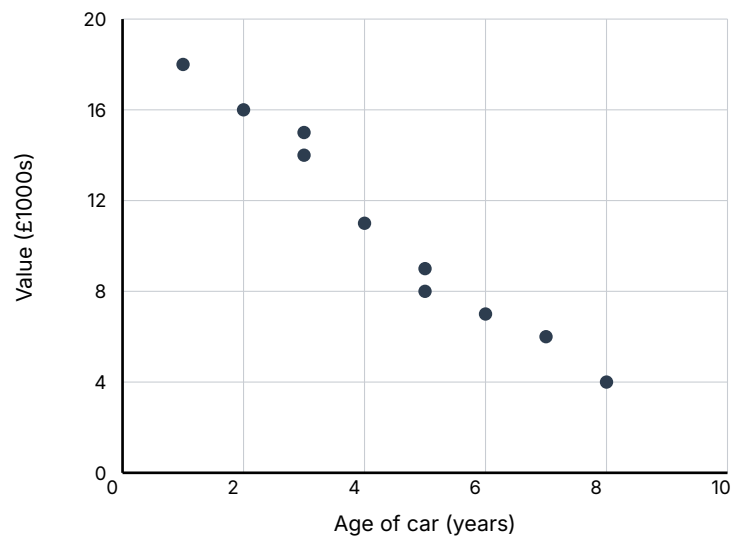
[2 marks]

AQA-style questions**Q6** 

Grade 4

AQA style

The scatter graph shows the age and value of 10 cars. Describe the correlation shown.



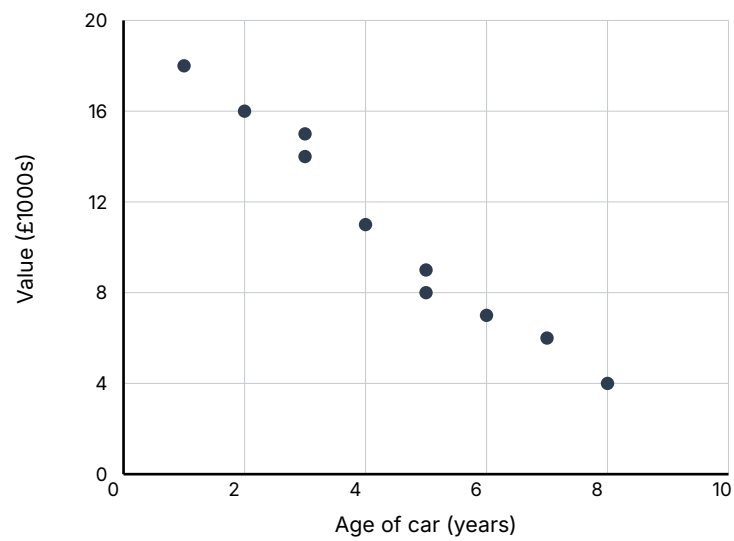
Answer _____

Q7

Grade 4

AQA style

One car is 6 years old. Use the scatter graph to find its value.



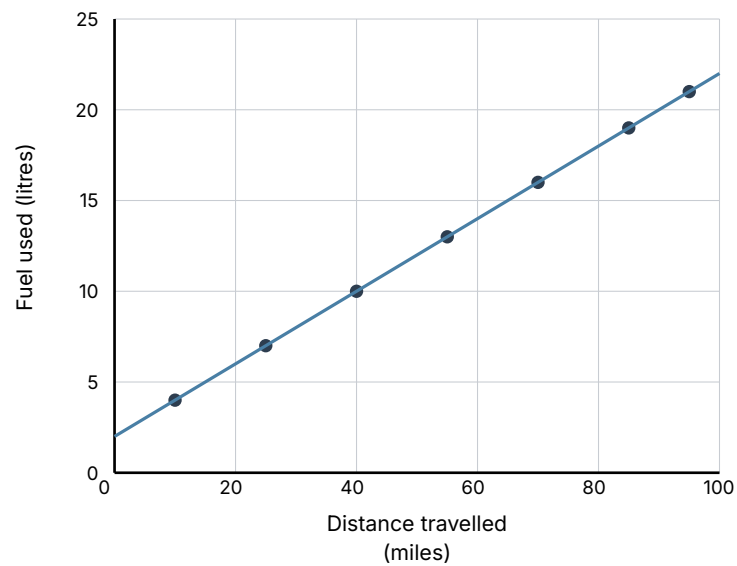
Answer _____

Q8

Grade 5

AQA style

The scatter graph shows distance travelled and fuel used, with a line of best fit drawn. Use the line of best fit to estimate the fuel used for a 50 mile journey.



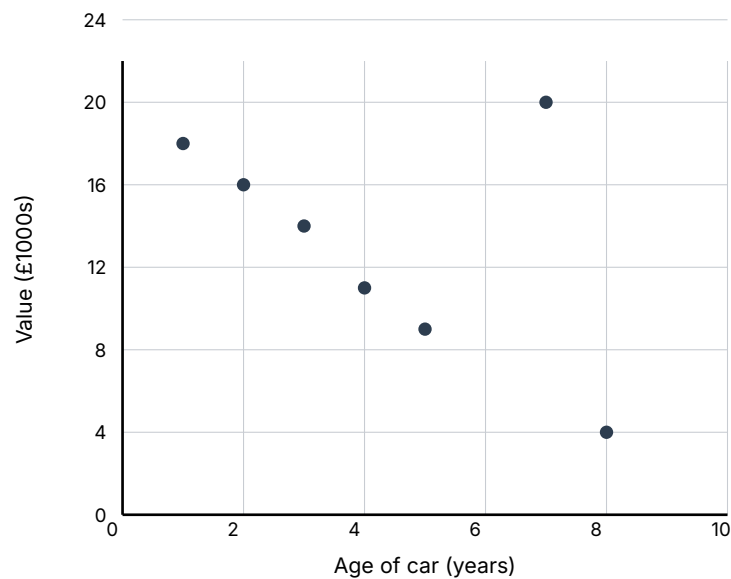
Answer _____

Q9

Grade 5

AQA style

The scatter graph shows the age and value of cars. Identify the outlier and write down its coordinates.



Answer _____

teachably

[2 marks]

Q10

Grade 6

AQA style

A scatter graph shows a strong positive correlation between shoe size and reading ability in primary school children. Does this mean that having bigger feet causes better reading ability? Explain your answer.

Answer _____

teachably

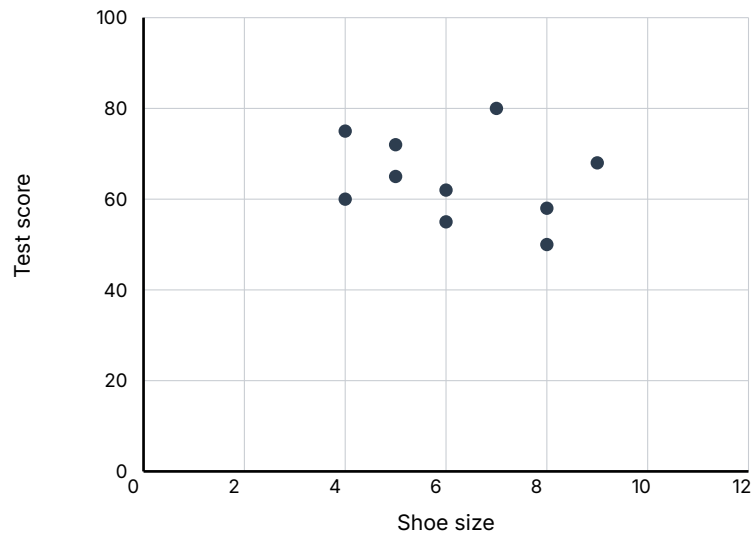
[2 marks]

OCR-style questions**Q11** 

Grade 4

OCR style

The scatter graph shows the shoe size and test score of 10 students. Describe the correlation shown.



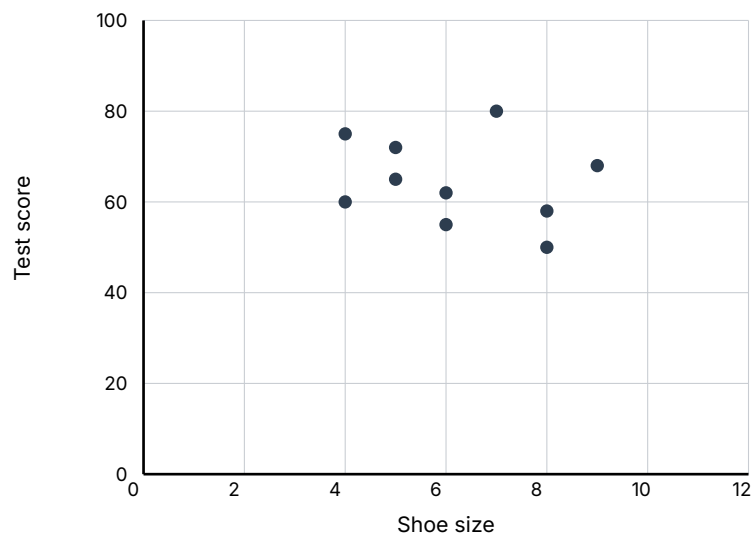
Answer _____

Q12

Grade 4

OCR style

One student has shoe size 7. Use the scatter graph to find their test score.



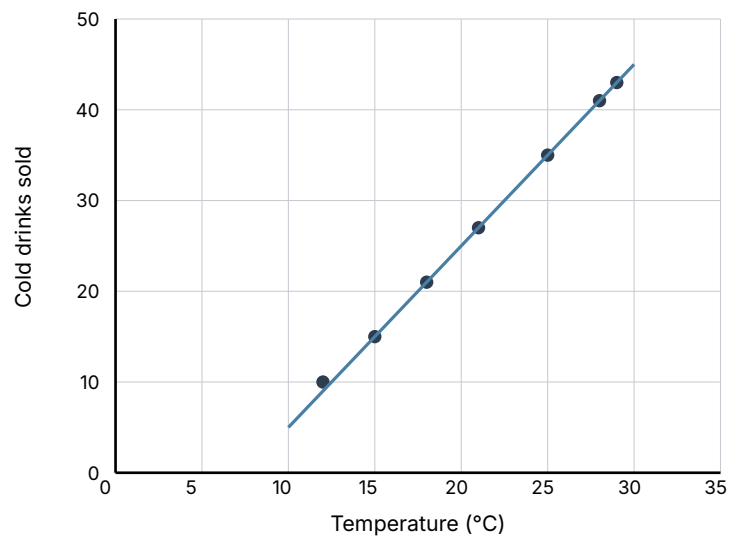
Answer _____

Q13

Grade 5

OCR style

The scatter graph shows temperature and cold drinks sold, with a line of best fit drawn. Use the line of best fit to estimate the number of cold drinks sold at 24°C.



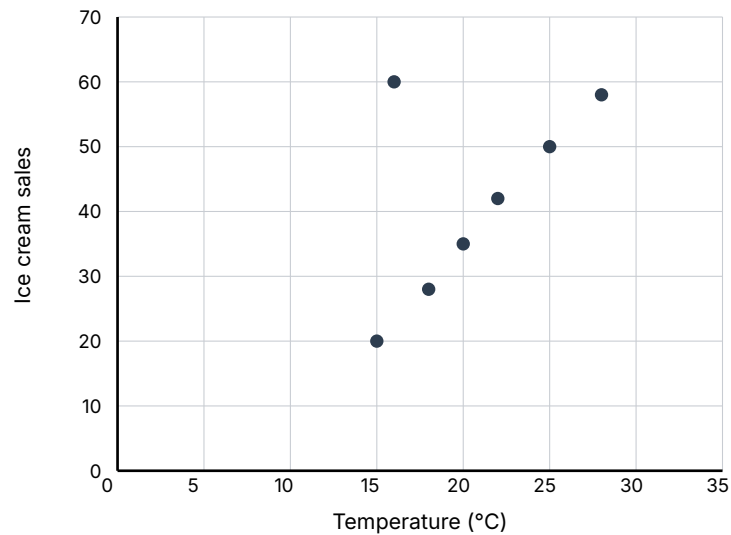
Answer _____

Q14

Grade 5

OCR style

The scatter graph shows temperature and ice cream sales. Identify the outlier and write down its coordinates.



Answer _____

teachably

[2 marks]

Q15

Grade 6

OCR style

A scatter graph shows a strong negative correlation between a country's average temperature and its sales of winter coats. Does this mean that low temperatures cause increased coat sales? Explain your answer.

Answer _____

teachably

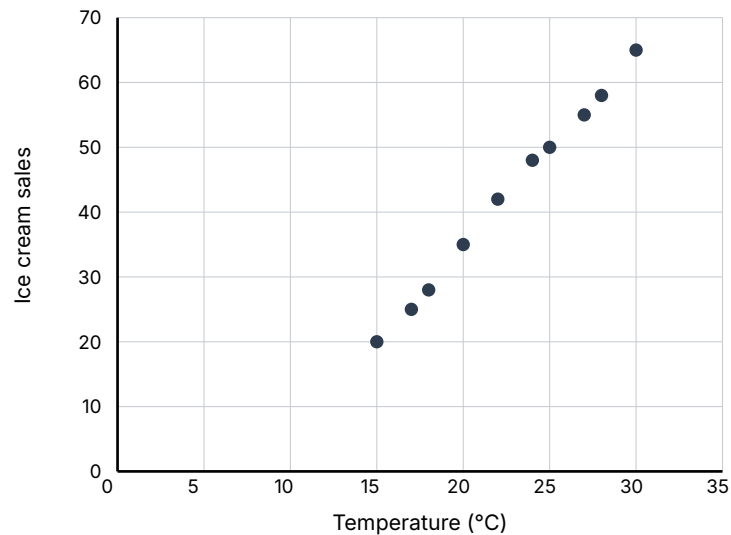
[2 marks]

Teachably-style questions**Q16** 

Grade 4

Teachably style

The scatter graph shows the temperature and ice cream sales on 10 days. Describe the correlation shown.



Answer _____

teachably

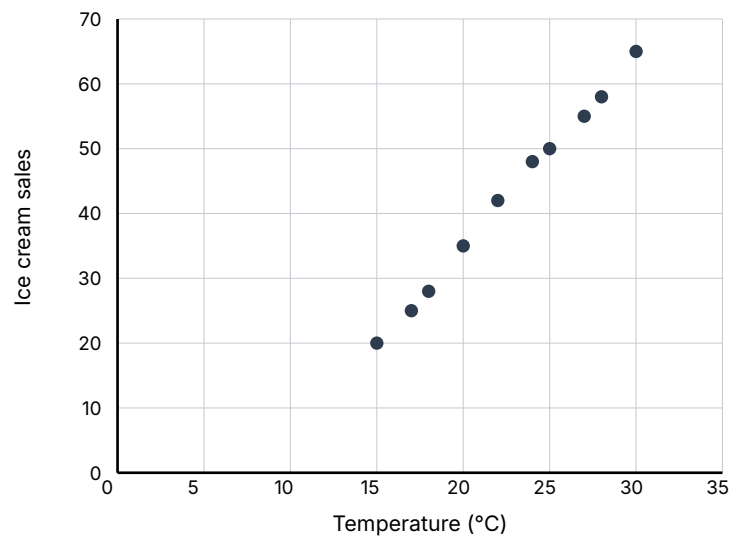
[1 mark]

Q17

Grade 4

Teachably style

The temperature was 22°C on one day. Use the scatter graph to find the ice cream sales that day.



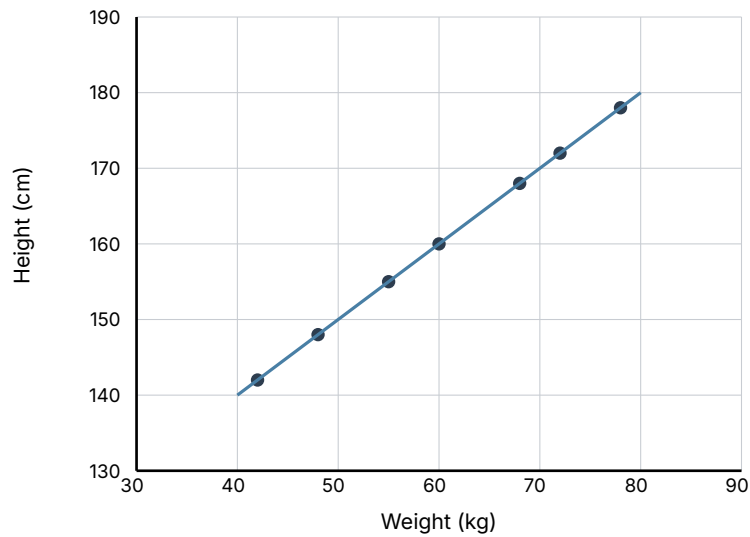
Answer _____

Q18

Grade 5

Teachably style

The scatter graph shows weight and height, with a line of best fit drawn. Use the line of best fit to estimate the height of someone weighing 65 kg.



Answer _____

teachably

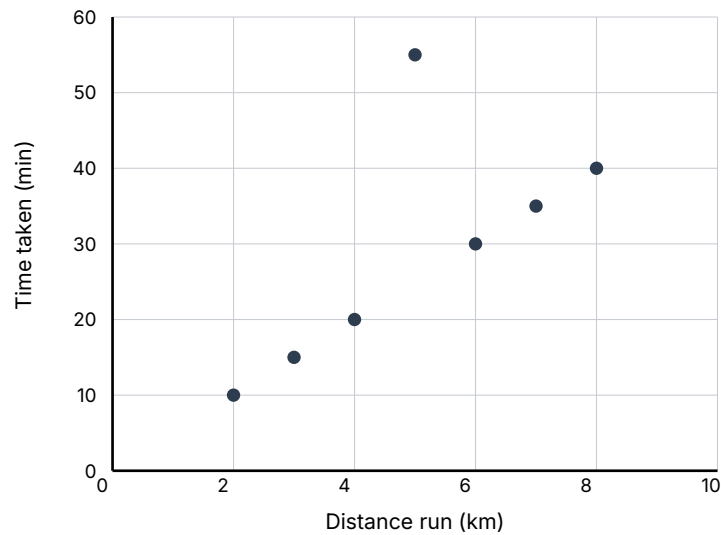
[2 marks]

Q19

Grade 5

Teachably style

The scatter graph shows distance run and time taken. Identify the outlier and write down its coordinates.



Answer _____

teachably

[2 marks]

Q20

Grade 6

Teachably style

A scatter graph shows a strong positive correlation between the number of fire engines sent to a fire and the amount of damage caused by the fire. Does this mean that sending more fire engines causes more damage? Explain your answer.

Answer _____

teachably

[2 marks]

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