**Non-Calculator Overlap questions June 17 Paper 1**

**21/1** 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.

( .......................... , ..........................)

**(1)**

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

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**(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.

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**(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.

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**(1)**

**(Total for Question 21/1 is 5 marks)**

**22/2** Express 56 as the product of its prime factors.

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**(Total for Question 22/2 is 2 marks)**

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**23/3** Work out 54.6 × 4.3

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**(Total for Question 23/3 is 3 marks)**

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**24/4**

The area of square *ABCD* is 10 cm2.

Show that *x*2 + 6*x* = 1

**(Total for Question 24/4 is 3 marks)**

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**25/5** This rectangular frame is made from 5 straight pieces of metal.



The weight of the metal is 1.5 kg per metre.

Work out the total weight of the metal in the frame.

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**(Total for Question 25/5 is 5 marks)**

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**26/6** The equation of the line L1 is *y* = 3*x* – 2

The equation of the line L2 is 3*y* – 9*x* + 5 = 0

Show that these two lines are parallel.

**(Total for Question 26/6 is 2 marks)**

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