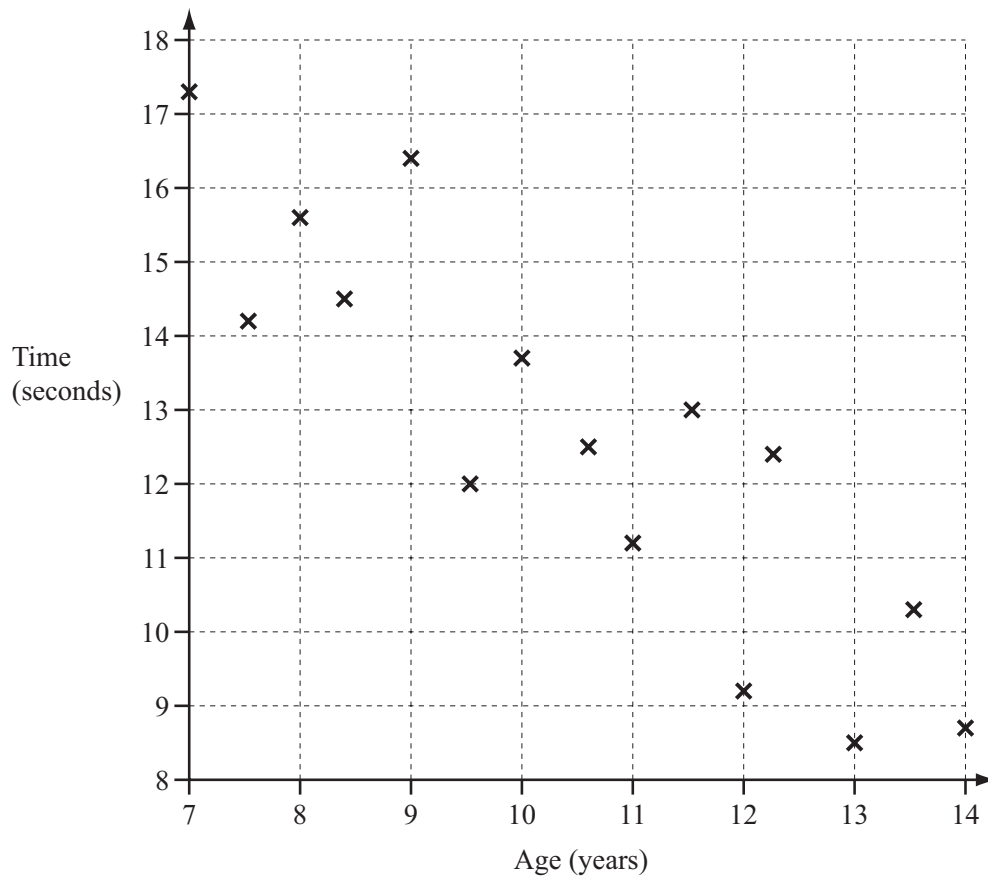**11** Fifteen children ran a 60 metre race.
In the scatter diagram below, the time taken is plotted against the age for each child.

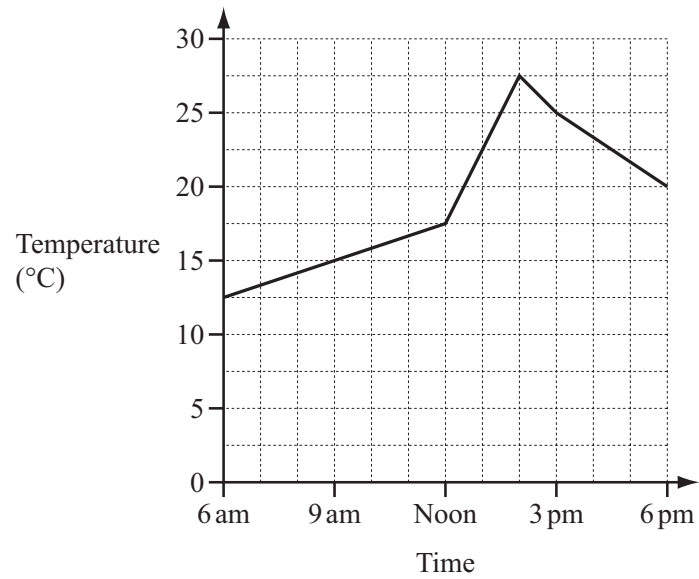**(a)** Draw a line of best fit on the scatter diagram.   [1]

(b) What type of correlation does the scatter diagram show?

Answer(b) .... [1]

(c) Describe how the times taken change with the ages of the children.

Answer (c) ....

.... [1]

9

The graph shows the temperature in Paris from 6 am to 6 pm one day.

(a) What was the temperature at 9 am?

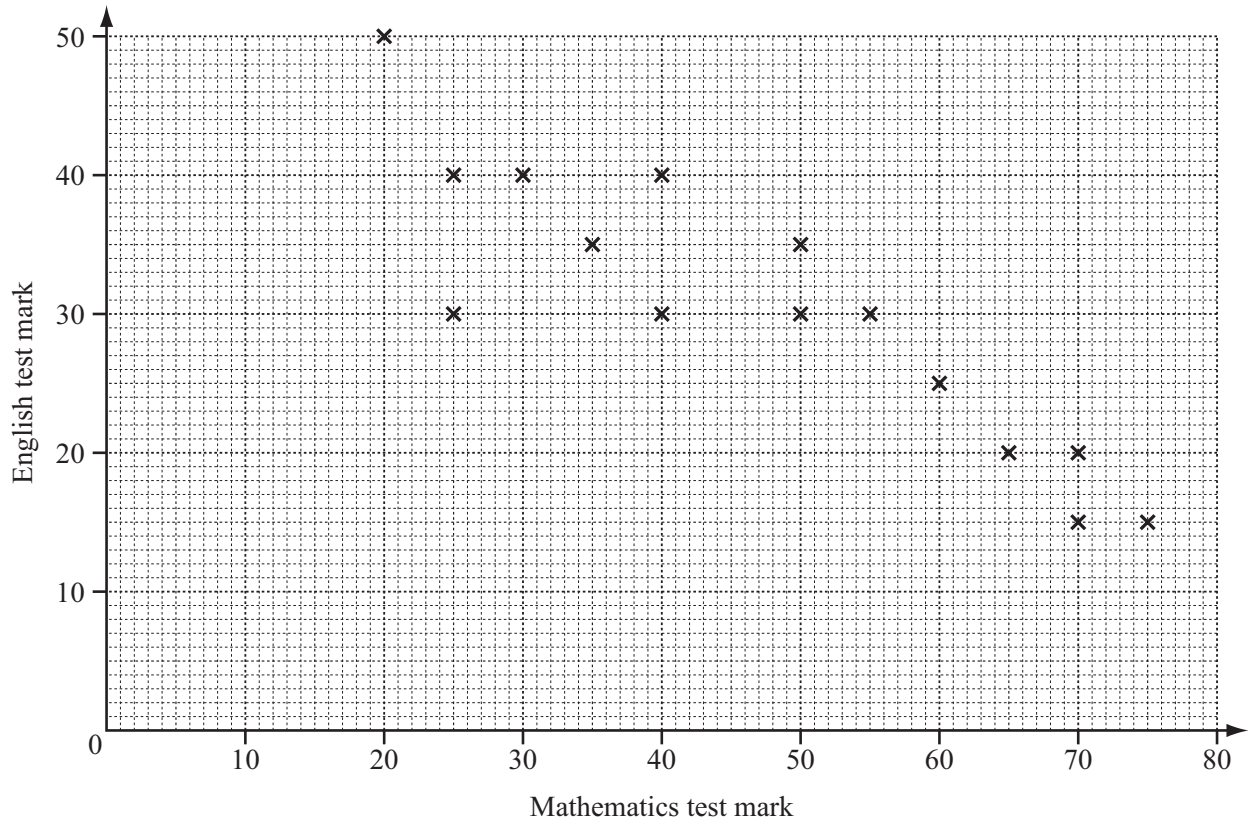*Answer(a)* .... °C [1]

(b) Between which two times was the temperature decreasing?

Answer(b) .... and .... [1]

(c) Work out the difference between the maximum and minimum temperatures shown.

Answer(c) .... °C [1]

15

The scatter diagram shows the marks obtained in a Mathematics test and the marks obtained in an English test by 15 students.

(a) Describe the correlation.

Answer(a) .... [1]

(b) The mean for the Mathematics test is 47.3 .
The mean for the English test is 30.3 .

Plot the mean point (47.3, 30.3) on the scatter diagram above. [1]

(c) **(i)** Draw the line of best fit on the diagram above. [1]

(ii) One student missed the English test.
She received 45 marks in the Mathematics test.

Use your line to estimate the mark she might have gained in the English test.
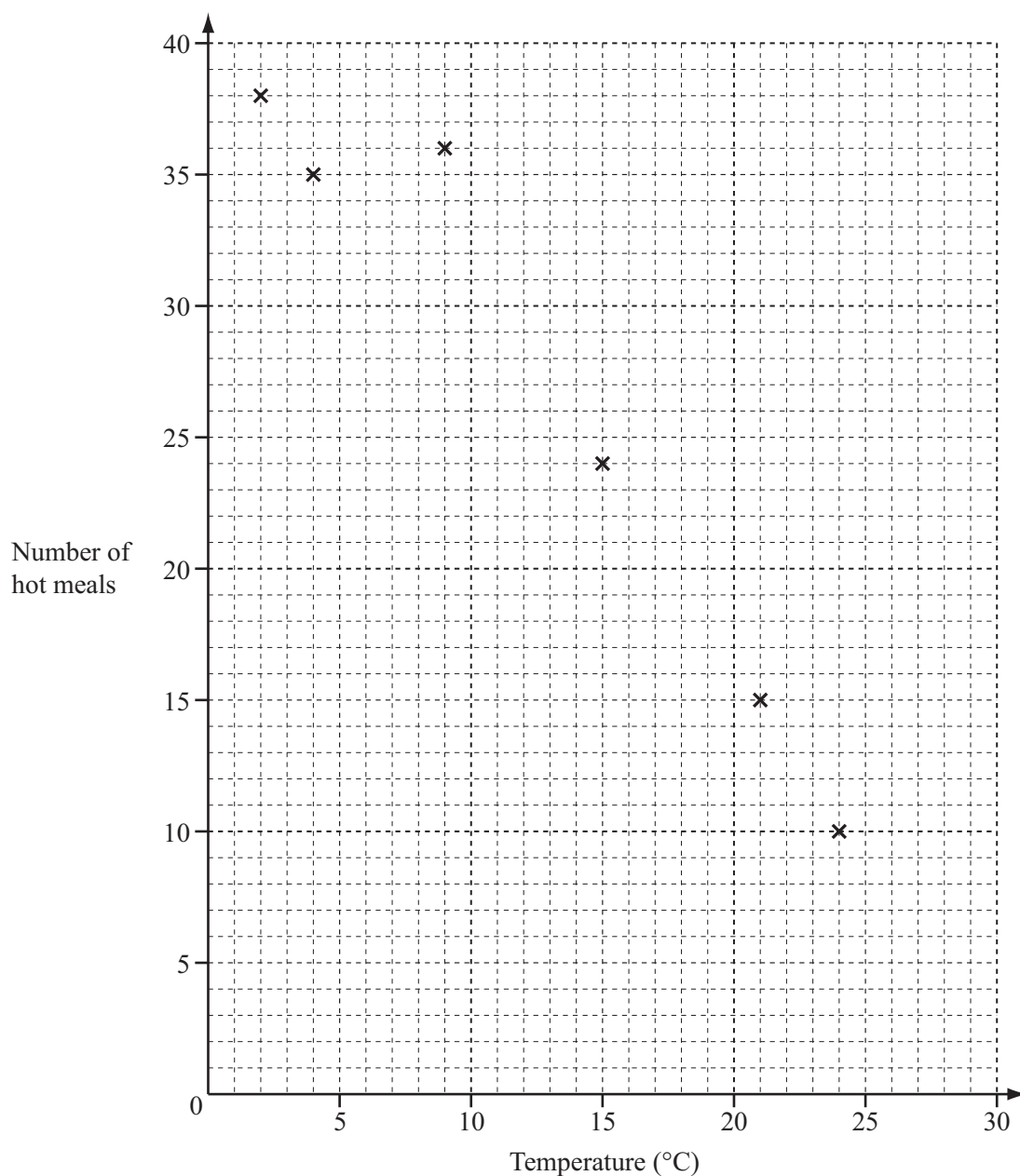
Answer(c)(ii) .... [1]

18 On the first day of each month, a café owner records the midday temperature (°C) and the number of hot meals sold.

Month	J	F	M	A	M	J	J	A	S	O	N	D
Temperature (°C)	2	4	9	15	21	24	28	27	23	18	10	5
Number of hot meals	38	35	36	24	15	10	4	5	12	20	18	32

(a) Complete the scatter diagram.
The results for January to June have been plotted for you.

Number of hot meals

Temperature (°C)

[2]

(b) On the grid, draw the line of best fit. [1]

(c) What type of correlation does this scatter diagram show?

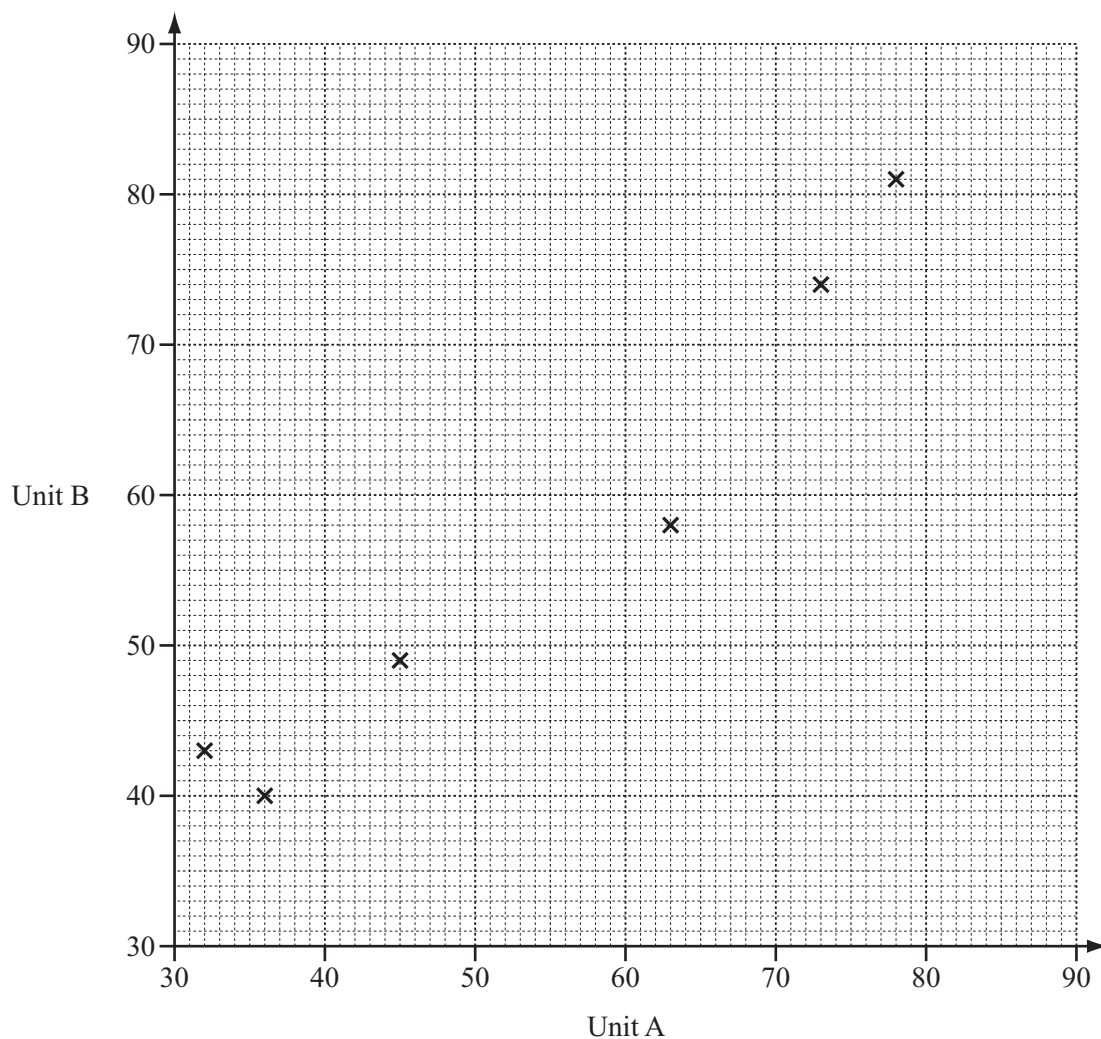*Answer(c)* .... [1]

7 The table shows the marks for ten students in their Chemistry papers for Unit A and Unit B.

Unit A	32	78	45	63	36	73	58	41	68	54
Unit B	43	81	49	58	40	74	60	50	72	59

(a) On the grid, complete the scatter diagram for these results.
The first six points have been plotted for you.

[2]

(b) What type of correlation does the scatter diagram show?

Answer(b) .... [1]