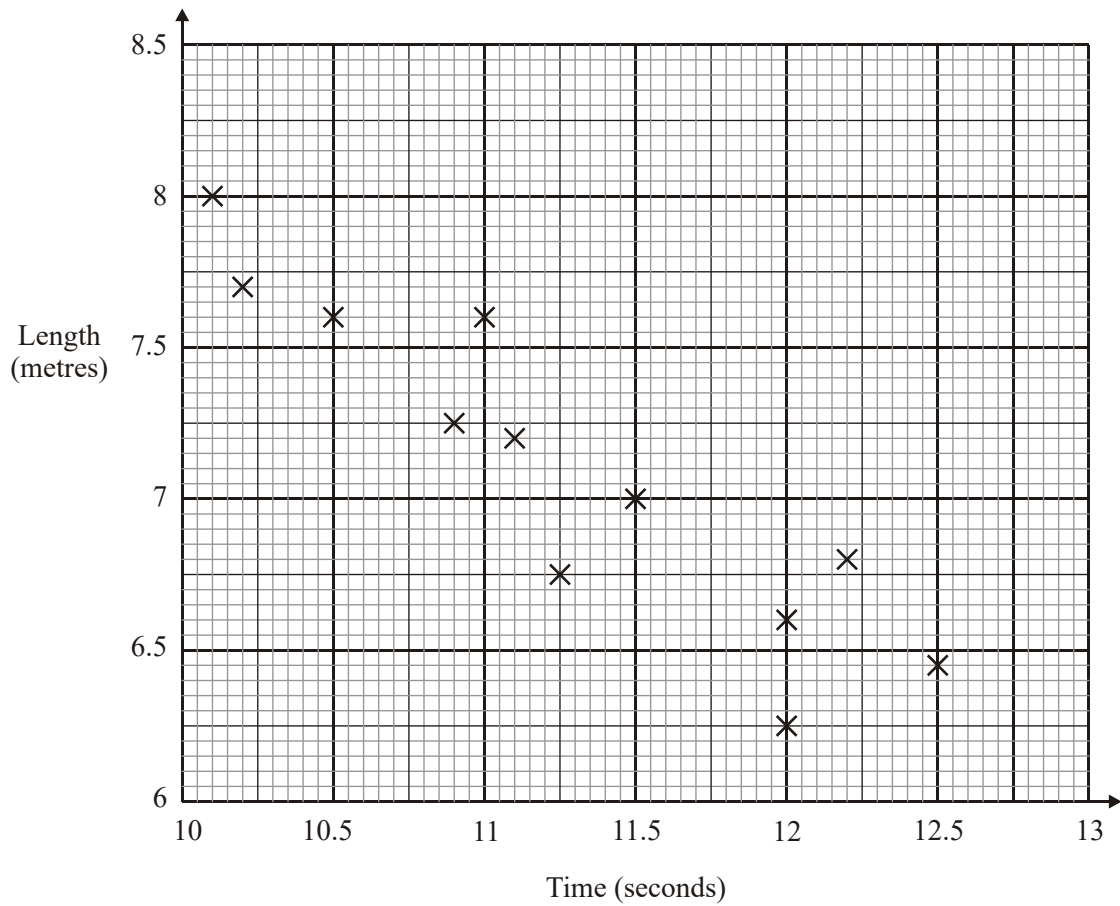


1. The scatter graph shows information about twelve athletes. It shows the time each athlete took to run 100 metres and the length of their best long jump.



- (a) Describe the **correlation** between time taken to run 100 metres and length of best long jump.

.....

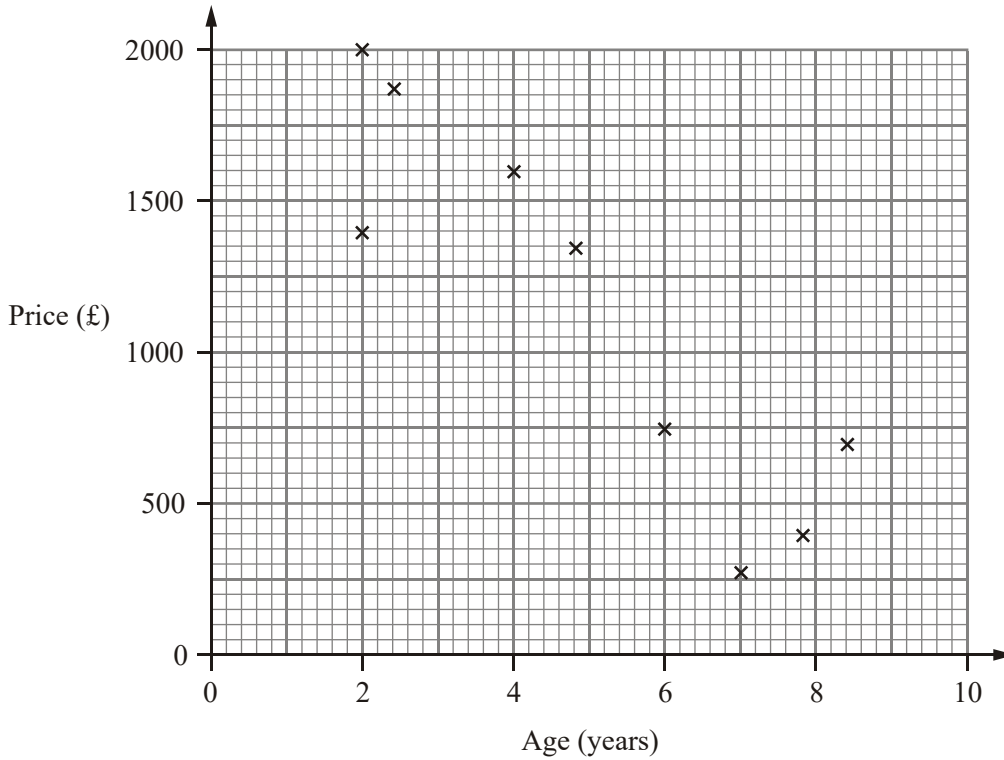
(1)

- (b) Draw a line of best fit on the scatter graph.

(1)

(Total 2 marks)

2. A garage sells motorcycles.  
The scatter graph shows information about the price and age of the motorcycles.



The table shows the age and price of four more motorcycles.

Age (years)	6	9	3	5
Price (£)	1000	200	1700	1000

- (a) On the scatter graph, plot the information from the table. (2)
- (b) What type of correlation does the scatter graph show?  
..... (1)
- (c) Draw a line of best fit on the scatter graph. (1)

Mae buys a motorcycle from this garage for £1500

(d) Use your line of best fit to estimate the age of the motorcycle.

..... years

(1)

(Total 5 marks)

01. (a) Negative 1  
*B1 cao*

(b) Line passing between ((10.25, 7.5) & (10.25, 8) and (12, 6.25) & (12.5, 6.25) 1  
*B1 for line within given limits*

[2]

02. (a) 4 plots 2  
*B2 for all 4 points correct ( $\pm 1$  square)*  
*(B1 for 2 or 3 correct)*

(b) negative 1  
*B1*

(c) line of best fit 1  
*B1 for line between (3, 1300) and (3, 1700) to (8, 250) and (8, 650)*

(d) estimate 1  
*B1 for 2.4-4.2 inclusive or ft. from £1500 to line and down ( $\pm 1$  square)*

[5]

01. This was a well answered question. The only errors were a failure to position the line of best fit within the range of the given points, or a failure to give a description of the correlation in part (a).

02. Most candidates were able to access at least 1 of the 2 marks available by plotting the 2 easier points (5, 1000) and (6, 1000) correctly. There was good recognition of the correlation being ‘negative’ although a number of candidates described the relationship rather than the type of correlation. The line of best fit was generally drawn well and most candidates were able to access the mark for estimating the age within the acceptable range.