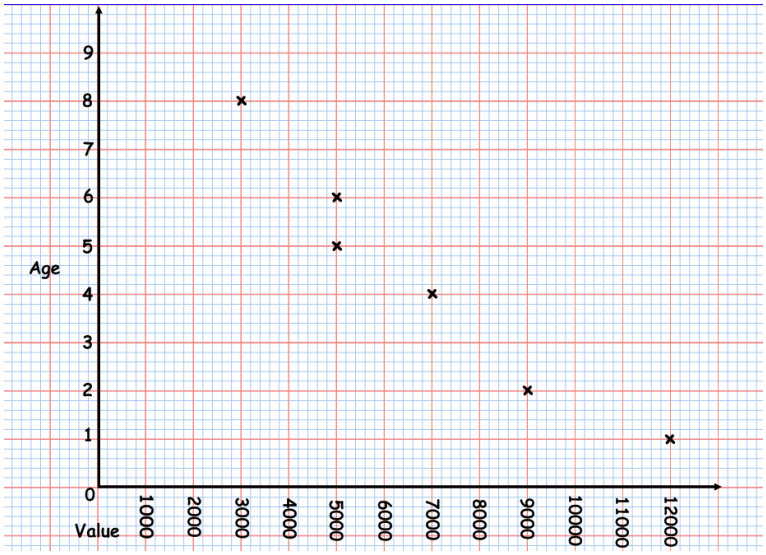
Name: _____ Scatter Graphs

For each of the graphs below; a) describe the type of correlation the graph shows,
b) what the practical interpretation of this is and
c) draw a line of best fit.

1. Below is a table and incomplete scatter graph investigating the value of nine Volkswagen Golf cars. Plot the last three points from the table.

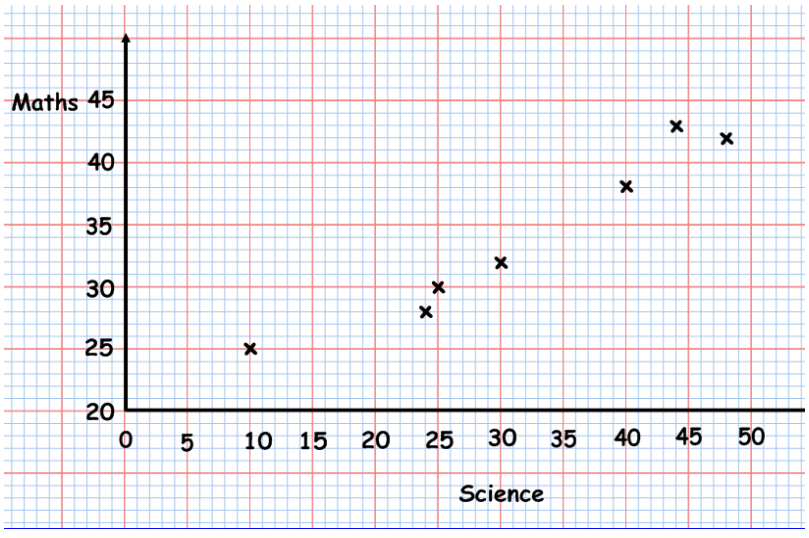


a)

b)

Value (£)	5,000	9,000	3,000	12,000	7,000	5,000	7,000	2,500	500
Age (years)	5	2	8	1	4	6	3	8	9

2. Here is a scatter graph showing the results in a science test and in a maths test for some pupils. Plot the last three pupils' results on the graph.

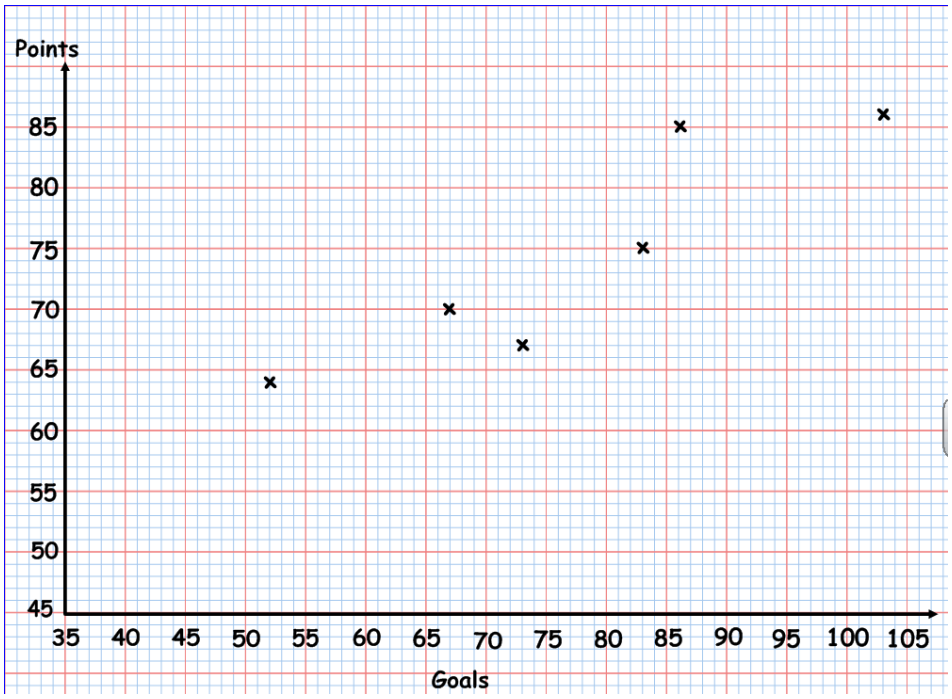


Science	Maths
44	43
24	28
40	38
48	42
30	32
25	30
10	25
37	35
34	37
38	40

a)

b)

3. The table below shows the number of goals scored and number of points gained for the top ten Premier League teams last season. Plot the last FOUR points to complete the scatter graph.

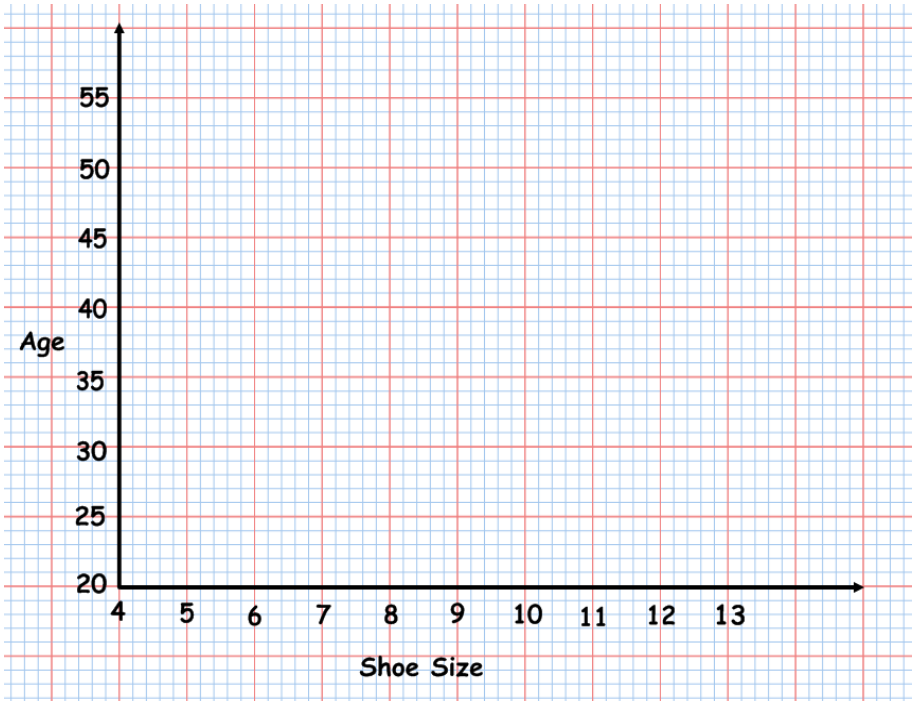


Goals	Points
103	86
86	85
83	75
67	70
73	67
52	64
61	63
60	61
38	50
41	50

a)

b)

4. Here is a table showing the shoe sizes and ages of the teachers in the maths department. Plot the points on the graph.



Age	Shoe size
31	11
26	8
53	12
45	10
50	6
38	7
28	5
34	6
30	10

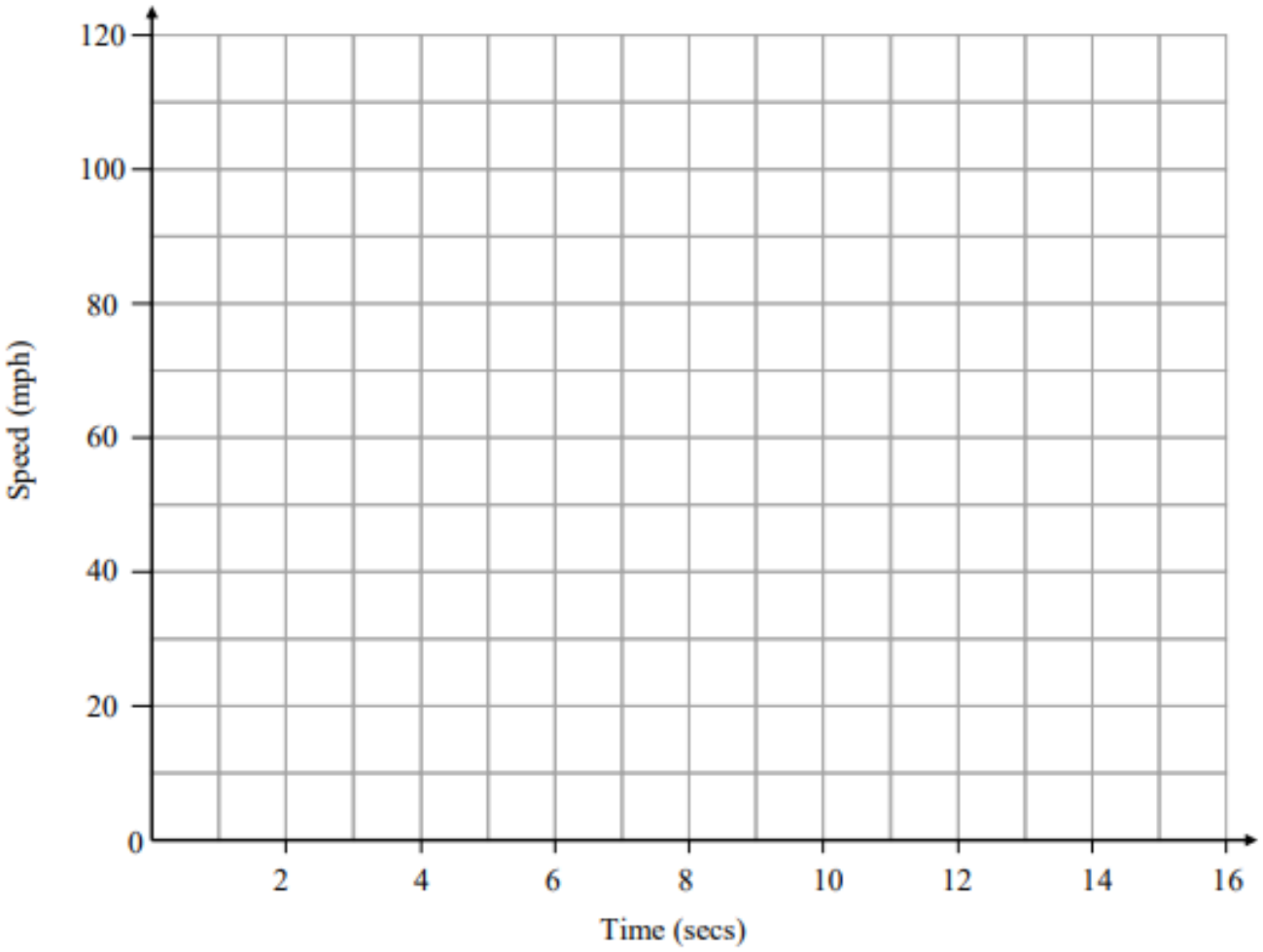
a)

b)

5. The following table shows the speed of a car accelerating from rest.

Time (secs)	0	2	6	8	12	16
Speed (mph)	0	10	50	60	80	110

(a) Draw a scattergraph of the information on a copy of this grid..



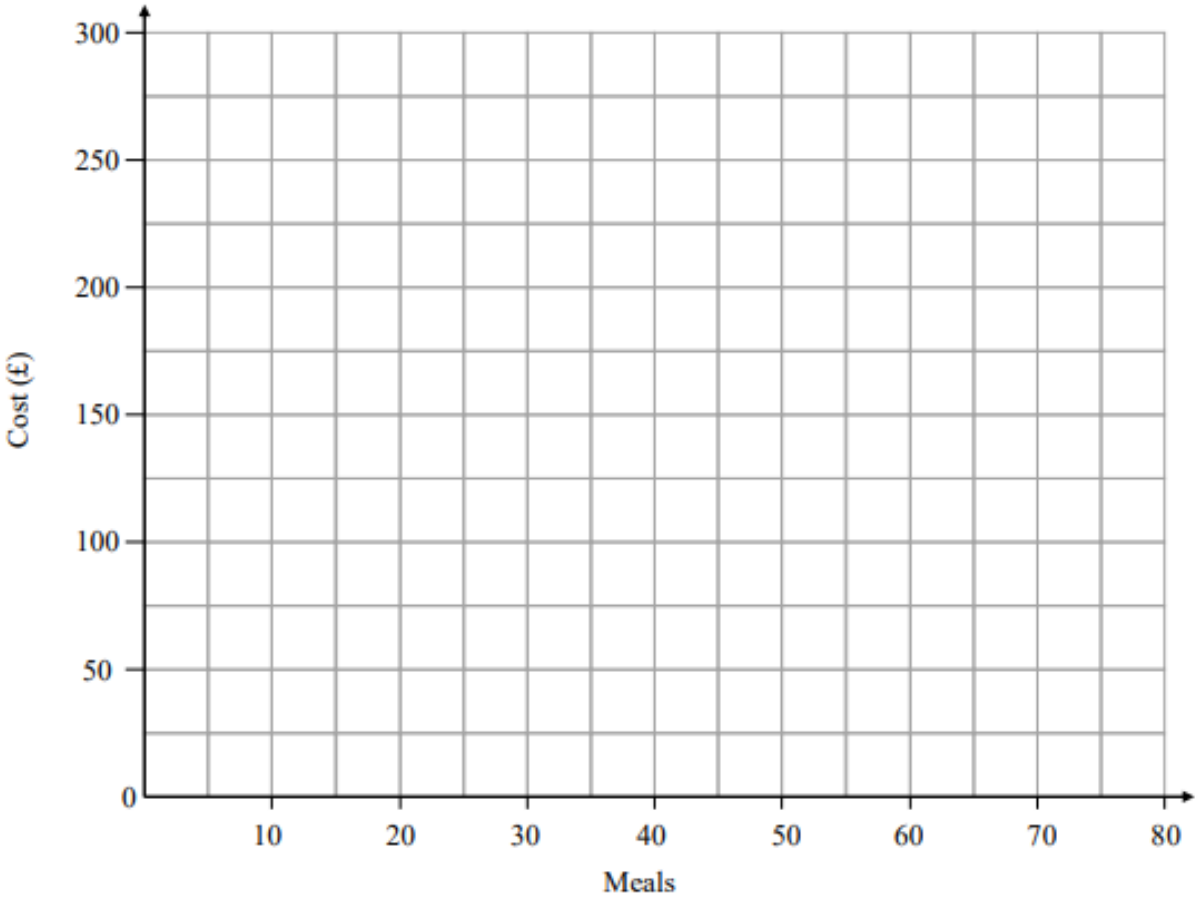
(b) Draw the best fitting line on the graph.

(c) Use your graph to estimate the speed after 4 seconds.

6. A restaurant manager finds that the cost of running his restaurant depends on the number of meals served.

(a) Draw a scattergraph of the information on a copy of this grid.

Number of meals	10	20	30	40	50	60
Cost in £	125	175	175	225	225	275



(b) Draw the best fitting line on the graph.

(c) Use your graph to estimate the cost of running the restaurant when 55 meals are served.

(d) The restaurant owner estimates the cost of running the restaurant when 75 meals were served would be £300. Is this a reasonable estimate?