FUNCTIONAL SKILLS MATHEMATICS

AQA | Edexcel | City & Guilds | Open Awards | NCFE | Highfield

Level 2

Scatter Graphs

Materials

- You **cannot** use a calculator for **questions** with this symbol.

Instructions

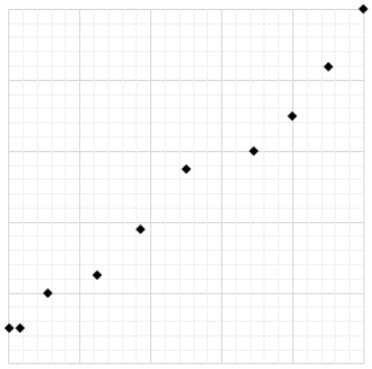
- Answer **all** questions.
- Answer questions on separate paper.

Information and Advice

- The marks for each question are shown in brackets – use this as a guide on how long to spend on each question.
- Read each question carefully before you answer it.
- Check you answers.

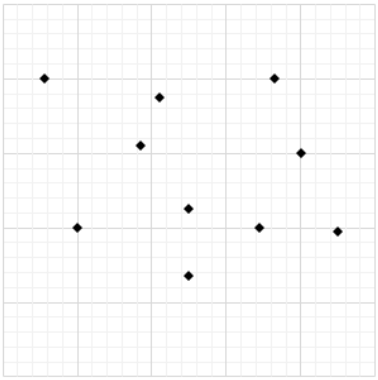
Q1 What is the correlation given in each of these diagrams?

1(a)



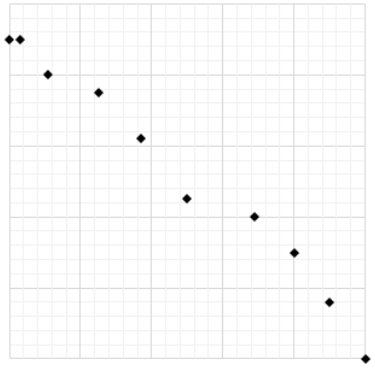
[1 mark]

1(b)



[1 mark]

1(c)

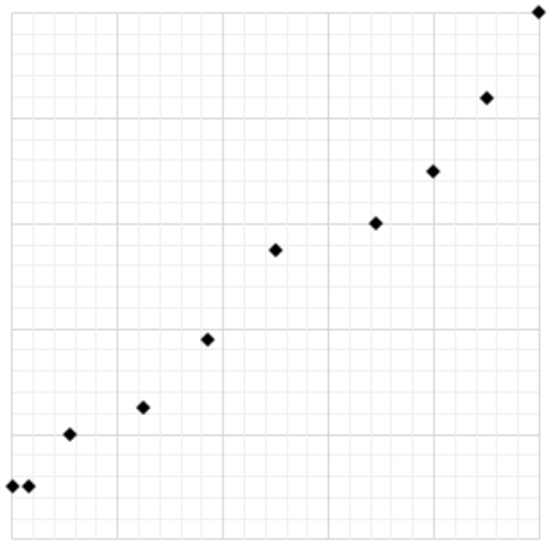


[1 mark]

3

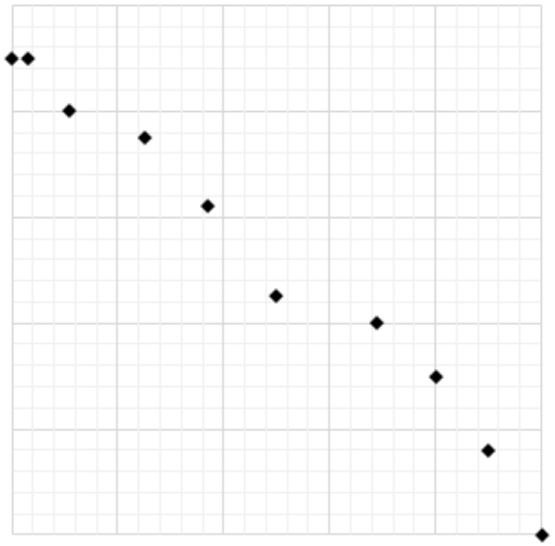
Q2 Draw a line of best fit for both diagrams:

2(a)



[1 mark]

2(b)

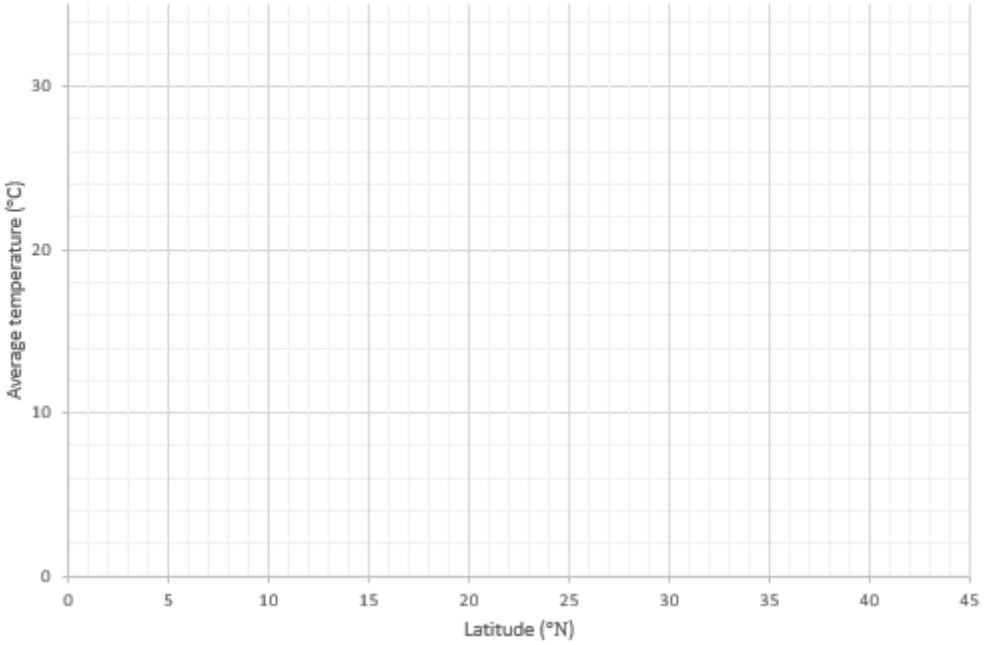


[1 mark]

Q3 The following data table gives the average daily temperature for ten cities in the northern hemisphere.

3(a) Plot the points on the scatter graph below, and include a line of best fit.

Latitude (°N)	33	23	5	41	0	24	34	14	18	10
Temperature (°C)	17	18	28	14	33	19	16	25	23	27



[3 marks]

3(b) For a city with a latitude of $20°N$, estimate the average daily temperature.

[1 mark]

3(c) Estimate the latitude of a city with an average daily temperature of $14℃$.

[1 mark]

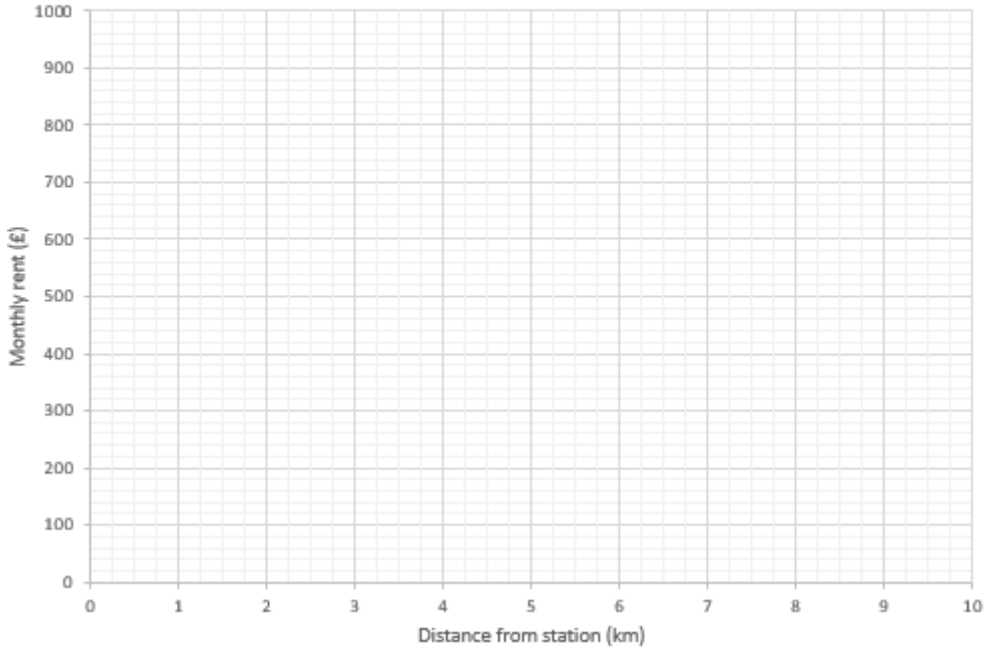
5

Turn over ►

Q4 The following data table gives the monthly rent for ten houses, and their distances from the train station.

4(a) Plot the points on the scatter graph below, and include a line of best fit.

Distance from station (km)	8	9	7	5	3	1	5	6	6	9
Monthly rent (£)	400	400	460	800	750	900	450	640	550	310



[3 marks]

4(b) For a house 4 km from the station, estimate the monthly rent.

[1 mark]

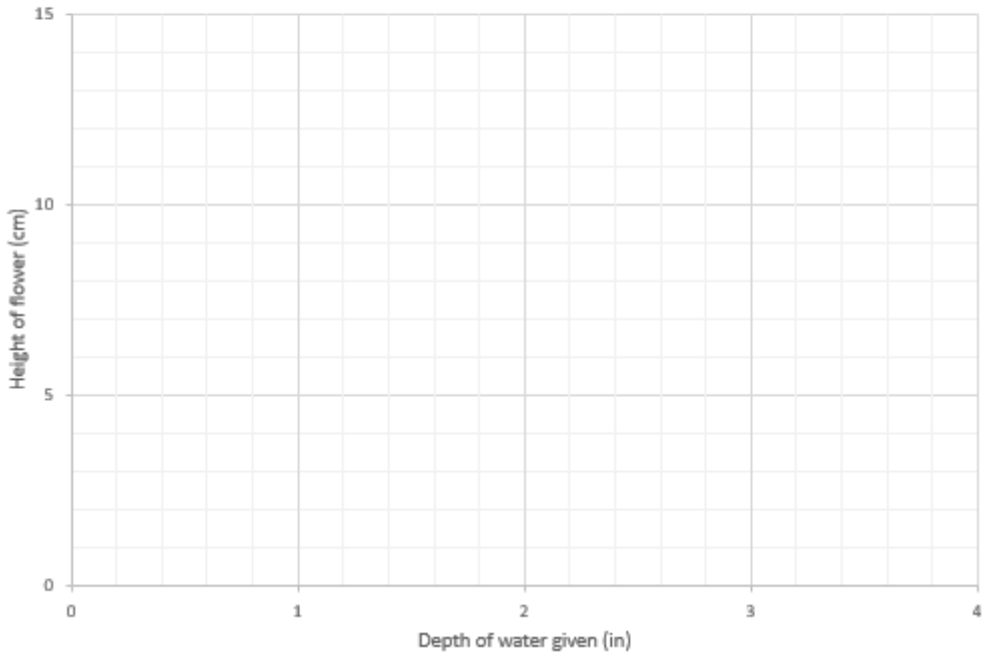
4(c) For a house with a monthly rent of £500, estimate its distance from the train station.

[1 mark]

Q5 The following data table gives the amount of water given to ten identical flowers.

5(a) Plot the points on the scatter graph below, and include a line of best fit.

Depth of water given (in)	0	3.7	3.5	0.6	2.3	0.8	1.2	1.8	1.5	2.7
Height of flower (cm)	0.2	12.7	12.9	4.0	8.3	4.0	7.4	6.9	6.3	10.7



[3 marks]

5(b) Estimate how tall a flower will grow when given 3 inches of water.

[1 mark]

5(c) Estimate how much water has been given to a flower of height 7 cm.

[1 mark]

5