

Line Graphs and Time Series

For AQA GCSE Mathematics (8300) • Foundation tier

Name _____

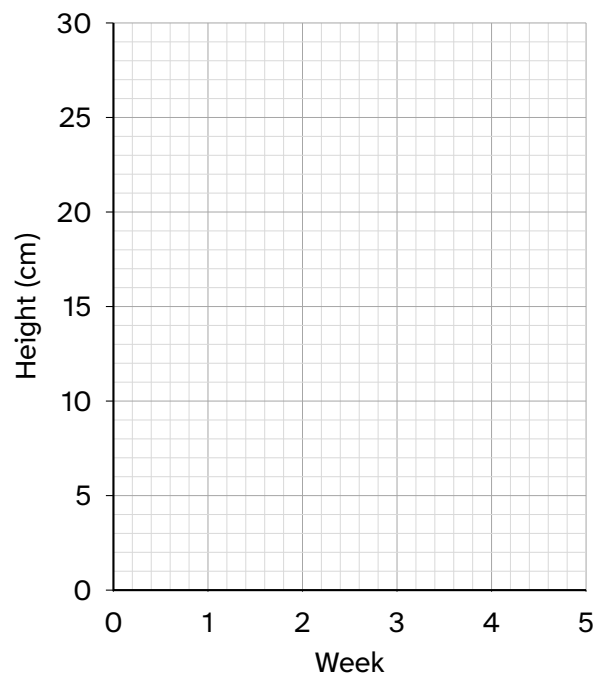
Total marks: **22**

Answer **all** questions in the spaces provided. Show your working: marks are given for correct method.

1 Amy measures the height of a plant each week.

Week	0	1	2	3	4	5
Height (cm)	3	8	14	19	24	27

(a) Draw a line graph to show this information.



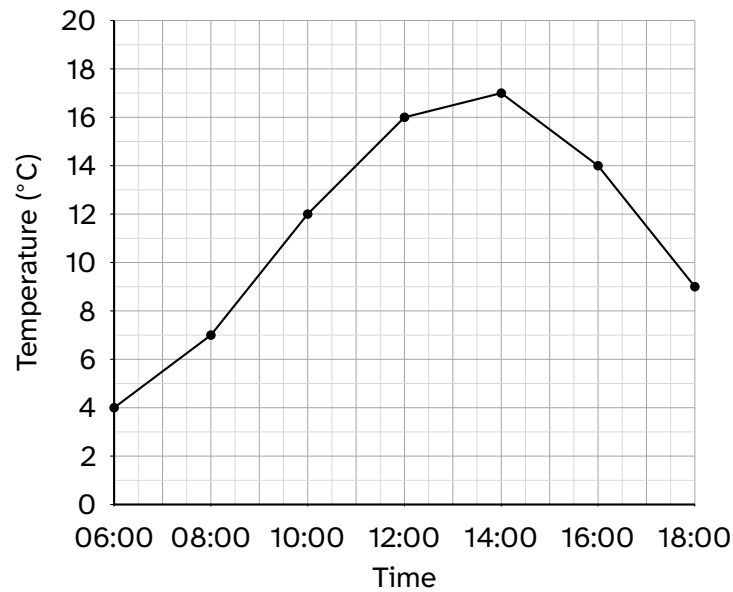
[2 marks]

(b) Use your graph to estimate the height of the plant after $2\frac{1}{2}$ weeks.

[1 mark]

Answer _____ cm

- 2 The graph shows the temperature in a garden on one day.



- (a) Write down the temperature at 10:00

[1 mark]

Answer _____ °C

- (b) Between which two times did the temperature increase the most?

[1 mark]

Answer _____

- (c) Use the graph to estimate the temperature at 17:00

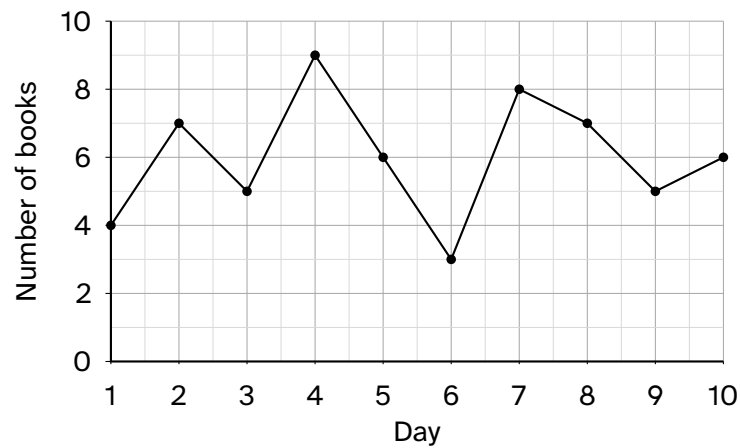
[1 mark]

Answer _____ °C

- (d) Give a reason why your estimate of the temperature at 17:00 may not be accurate.

[1 mark]

- 3** A library records the number of books returned late each day for 10 days. The line graph shows this information.



- (a) Work out the mean number of books returned late per day.

[2 marks]

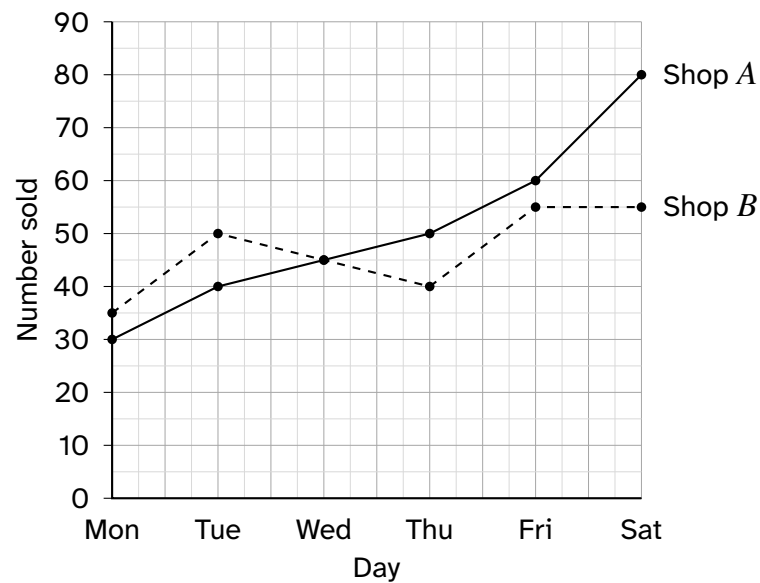
Answer _____

- (b) On what percentage of the days were more than 6 books returned late?

[2 marks]

Answer _____ %

- 4 The graph shows the number of ice creams sold by two shops, *A* and *B*, each day for six days.



- (a) On which day did the two shops sell the same number of ice creams?

[1 mark]

Answer _____

- (b) Work out the difference between the numbers sold by the two shops on Saturday.

[1 mark]

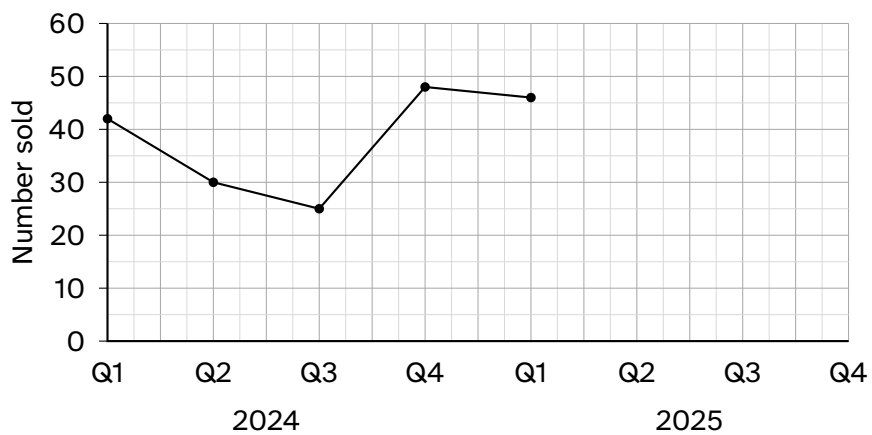
Answer _____

- (c) Which shop sold more ice creams over the six days?
You must show your working.

[2 marks]

Answer _____

- 5 The graph shows the number of bikes sold by a shop in each quarter of 2024 and in Quarter 1 of 2025.



- (a) The sales for Quarters 2, 3 and 4 in 2025 were 34, 29 and 53
Complete the time series graph.

[2 marks]

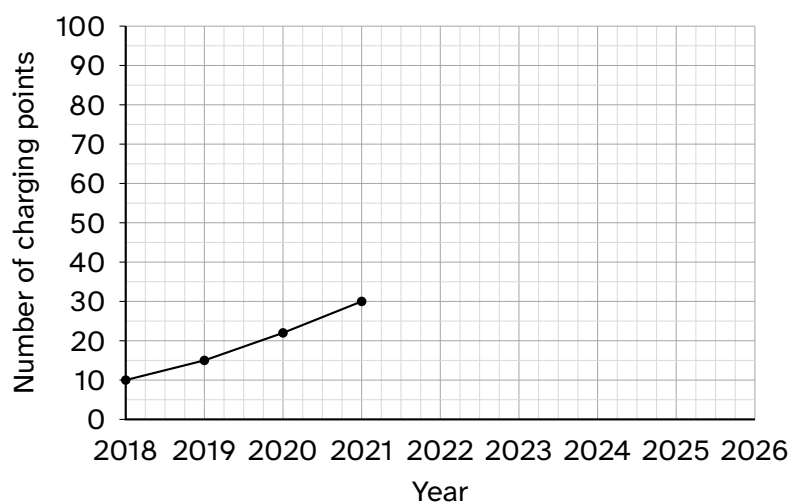
- (b) Describe the pattern in the sales.

[1 mark]

- 6 A town council records the number of electric car charging points in the town at the start of each year.

Year	2018	2019	2020	2021	2022	2023	2024	2025
Number	10	15	22	30	40	52	68	88

Kim is drawing a time series graph of these numbers.
She has plotted the points for 2018 to 2021.



- (a) Complete the graph.

[2 marks]

- (b) Describe the trend in the number of charging points.

[1 mark]

- (c) The council says,

‘There will be more than 100 charging points at the start of 2026.’

Does the graph support this?

Give a reason for your answer.

[1 mark]
