

Line Graphs and Time Series

For Pearson Edexcel GCSE Mathematics (1MA1) • Foundation tier

Name _____

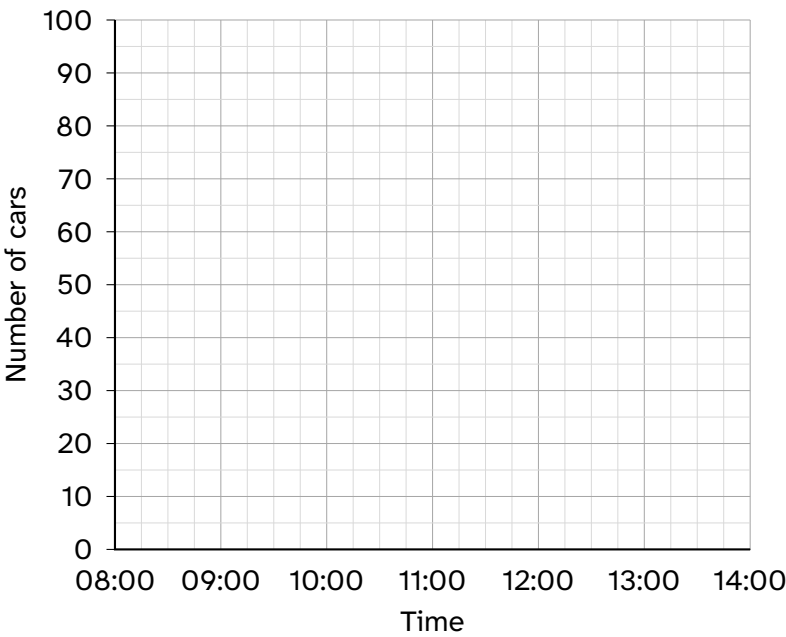
Total marks: **20**

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

1 The table shows the number of cars in a car park at different times on one day.

Time	08:00	09:00	10:00	11:00	12:00	13:00	14:00
Number of cars	12	45	70	78	90	84	60

(a) Draw a time series graph for this information.



(2)

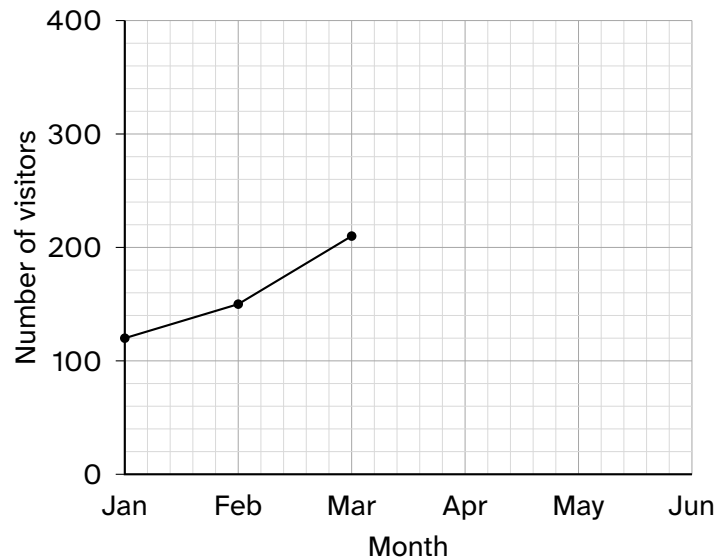
(b) Between which two times did the number of cars increase the most?

.....
(1)

(Total for Question 1 is 3 marks)

- 2 The table shows the number of visitors to a museum each month.

Month	Jan	Feb	Mar	Apr	May	Jun
Visitors	120	150	210	250	330	380



- (a) Complete the time series graph.

(2)

- (b) Describe the trend in the number of visitors.

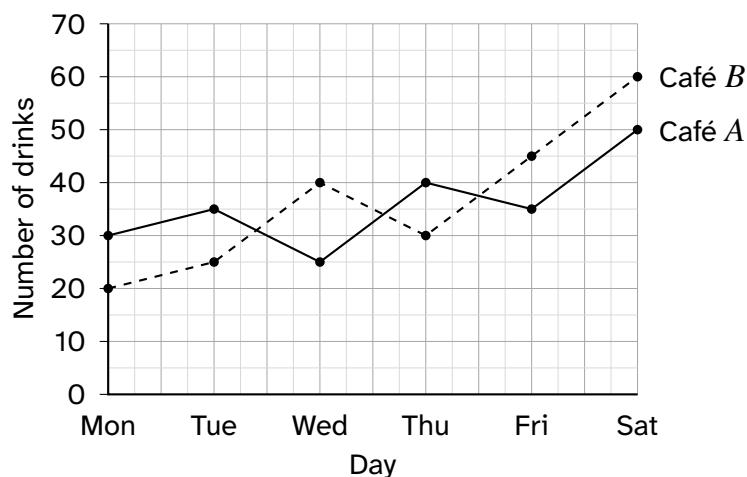
(1)

- (c) Between which two months was the greatest increase in the number of visitors?

.....
(1)

(Total for Question 2 is 4 marks)

- 3 The graph shows the number of hot drinks sold by two cafés, *A* and *B*, each day for six days.



- (a) On how many days did Café *A* sell more drinks than Café *B*?

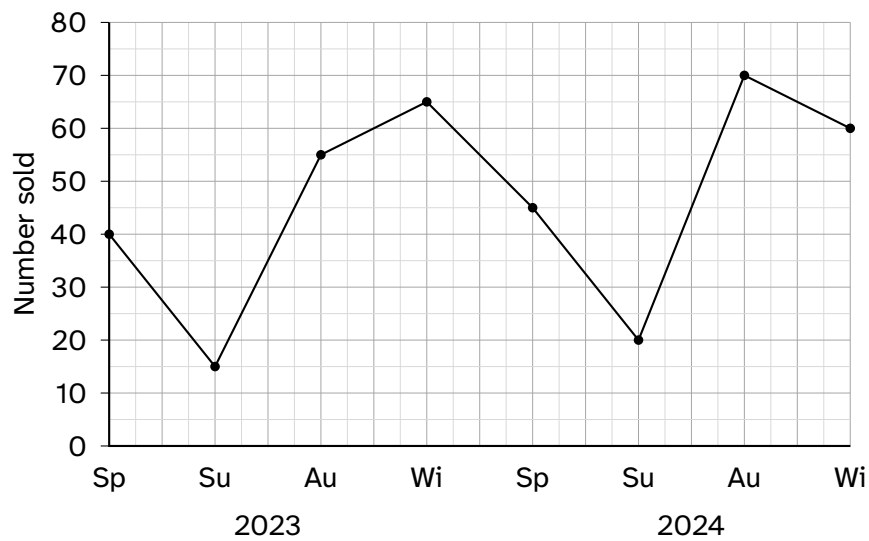
.....
(1)

- (b) Work out the total number of drinks sold by Café *B* on Friday and Saturday.

.....
(2)

(Total for Question 3 is 3 marks)

- 4 The time series graph shows the number of umbrellas sold by a shop in each season of 2023 and 2024.



- (a) Write down the number of umbrellas sold in Autumn 2024.

.....
(1)

- (b) Work out the total number of umbrellas sold in 2024.

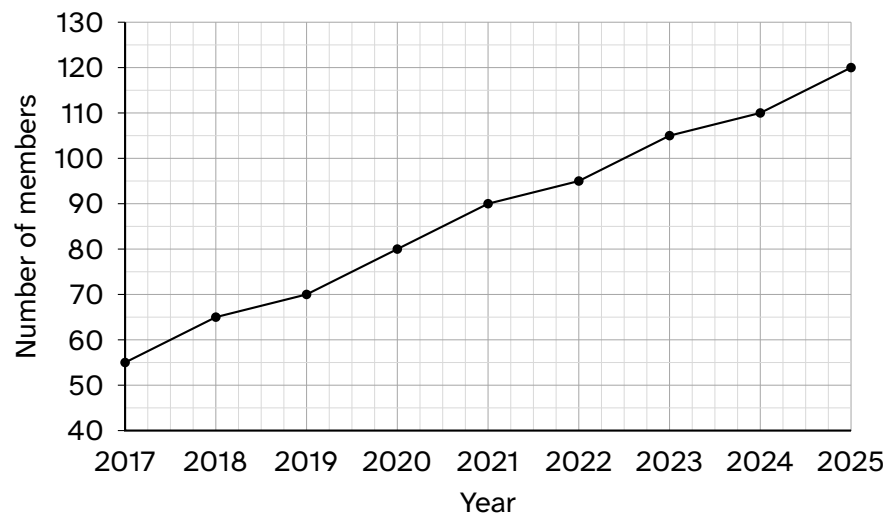
.....
(2)

- (c) Kay says, "Sales are always highest in Winter."
Is Kay correct?
Give a reason for your answer.

.....
.....
(1)

(Total for Question 4 is 4 marks)

- 5 The time series graph shows the number of members of a swimming club at the start of each year from 2017 to 2025



- (a) Describe the trend in the number of members.

(1)

- (b) Write down the first year in which the club had more than 100 members.

.....

(1)

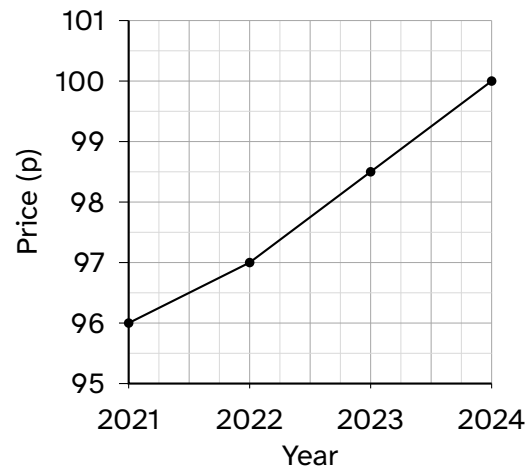
- (c) The club secretary uses the graph to predict that the club will have 170 members in 2031

Give **one** reason why this prediction may not be reliable.

(1)

(Total for Question 5 is 3 marks)

- 6 Leon draws this graph to show the price of a bus ticket, in pence, over four years.



Leon says, “*The price of a ticket has more than doubled.*”

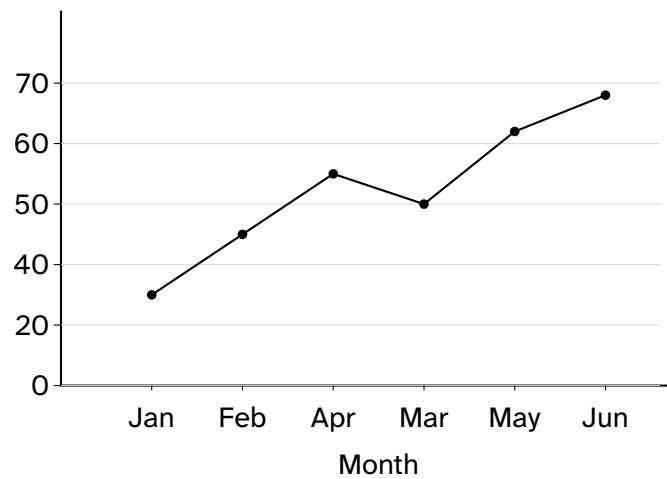
Is Leon correct?

You must give a reason for your answer.

(1)

(Total for Question 6 is 1 mark)

- 7** A bookshop records the number of books it sells each month from January to June. Mia draws this graph to show the information.



Give **two** criticisms of Mia's graph.

(2)

(Total for Question 7 is 2 marks)
