

Line Graphs

Please write clearly in block capitals

Forename:

Surname:

Materials

For this paper you must have:

- mathematical instruments



You *can* use a calculator.

Instructions

- Use black ink or black ball-point pen. Draw diagrams in pencil.
- Fill in the boxes at the top of this page.
- Answer all questions.
- You must answer the questions in the spaces provided. Do not write outside the box around each page or on blank pages.
- Do all rough work in this book. Cross through any work you do not want to be marked.

Information

- The marks for questions are shown in brackets.
- You may ask for graph paper, tracing paper and more answer paper. These must be tagged securely to this answer book.

Advice

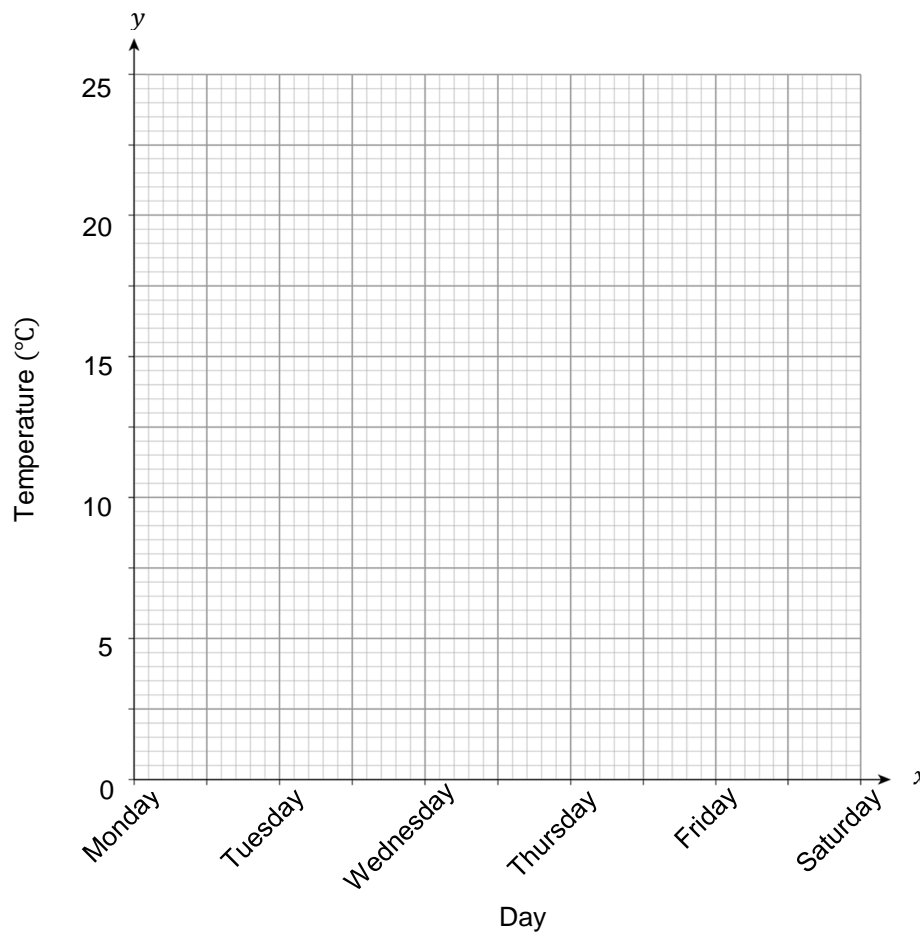
- In all calculations, show clearly how you work out your answer.

- 1 The temperature across the week for 6 days in July is recorded in the table below. (Level 3)

| Day | Mon | Tue | Wed | Thurs | Fri | Sat |
|------------------------------------|-----|-----|-----|-------|-----|-----|
| Temperature ($^{\circ}\text{C}$) | 10 | 17 | 16 | 23 | 24 | 20 |

Use the information in the table above to plot a line graph on the axes below.

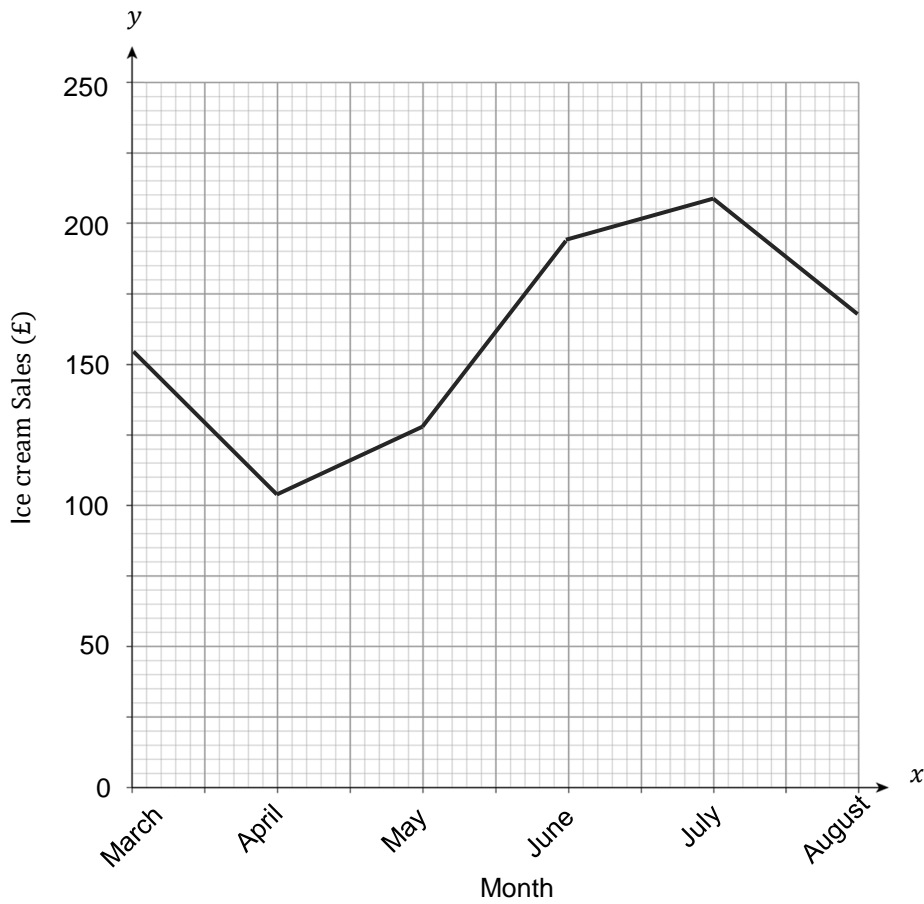
[2 marks]



Turn over for next question

Turn over ►

2 The line graph below shows the average daily income for an ice cream van over 6 months. (Level 4)



2(a) How much money in total did the ice cream van make in August? [1 mark]

Answer _____

2(b) On the graph above, plot a 2 point moving average for the months of March to August and describe the trend in the data for these months. [2 marks]

Answer _____

Turn over for next question

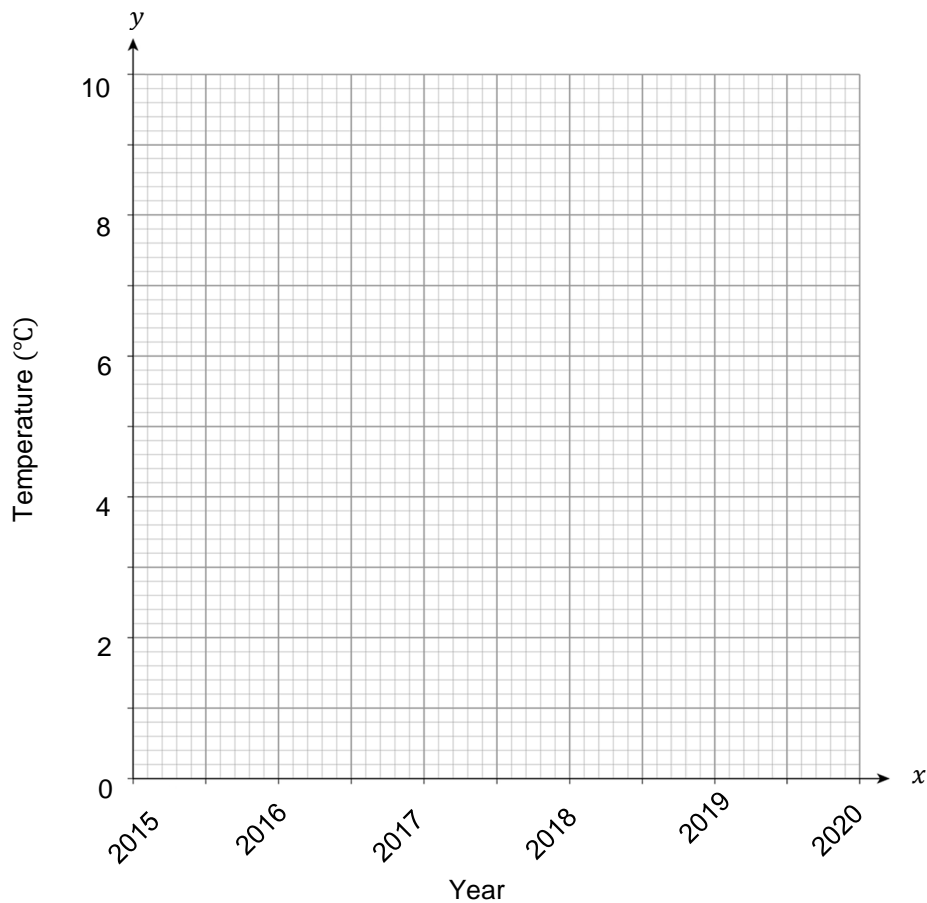
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- 3 The average temperature In February for the UK is displayed in the table below. (Level 4)

| Year | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|------------------------------------|------|------|------|------|------|------|
| Temperature ($^{\circ}\text{C}$) | 4.3 | 5.2 | 6.8 | 3.1 | 6.9 | 6.4 |

- 3(a) Use the information in the table above to plot a line graph on the axes below.

[2 marks]



- 3(b) On the graph above, plot a two point moving average and describe a trend, if any, in the data.

[2 marks]

Turn over for next question

Turn over ►

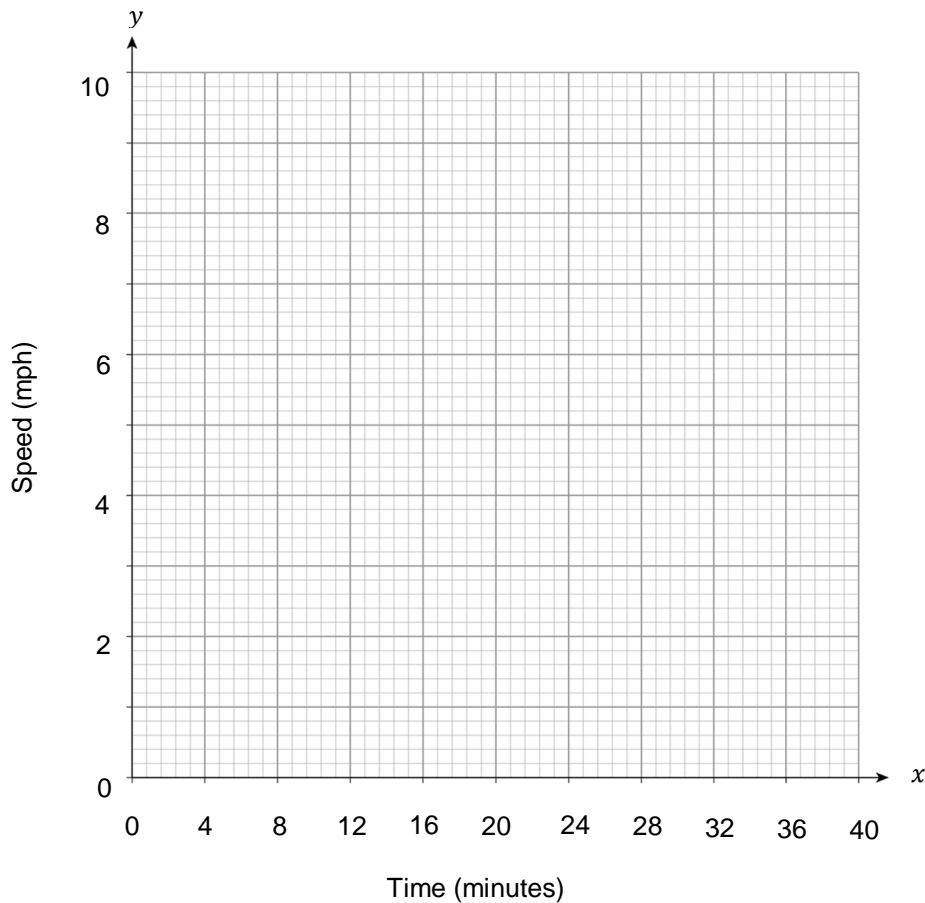
4 The average speed of a runner during a race is shown in the table below.

(Level 4)

| | | | | | | | | |
|-----------------------|-------|-------|---------|---------|---------|---------|---------|---------|
| Time (minutes) | 0 - 4 | 5 - 9 | 10 - 14 | 15 - 19 | 20 - 24 | 25 - 29 | 30 - 34 | 35 - 39 |
| Speed (Mph) | 7.1 | 6 | 5.2 | 5.2 | 4.3 | 3.8 | 2.9 | 5.2 |

4(a) Use the information in the table above to plot a line graph on the axes below.

[2 marks]



4(b) On the graph above, plot a two point moving average for the runners speed and describe what the averages show about the trend of speed throughout the race.

[2 marks]

Turn over for next question

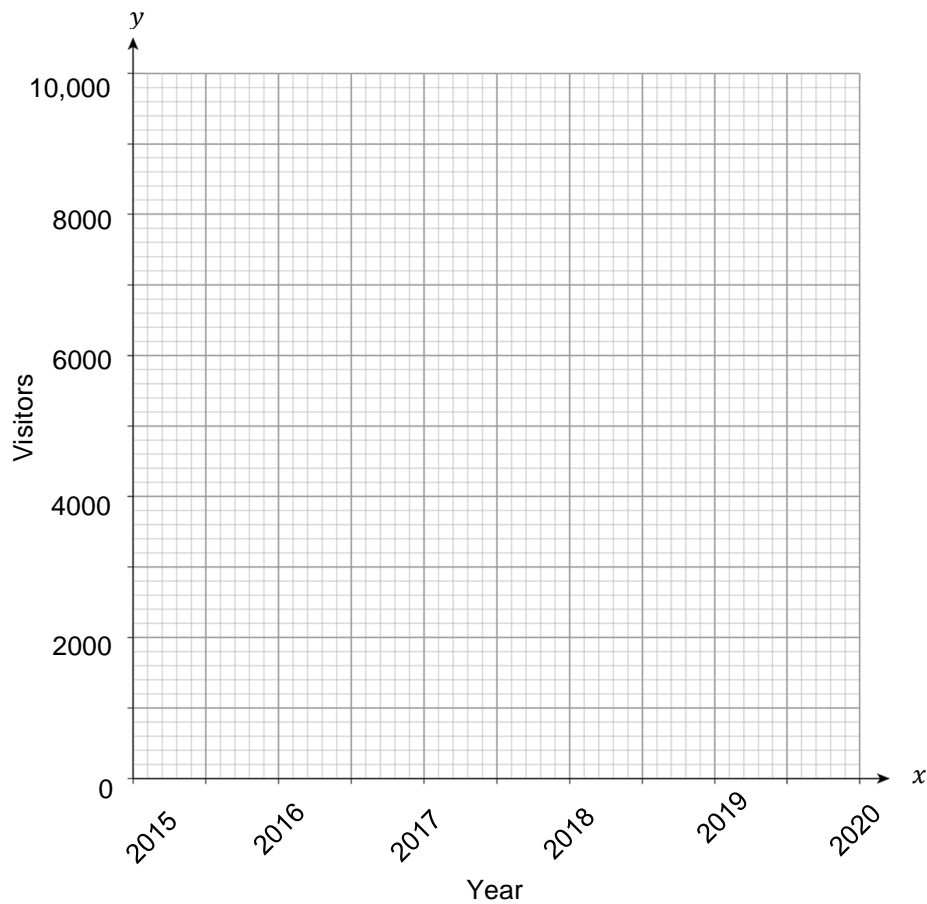
Turn over ►

5 The average number of visitors for a museum is shown in the table below. (Level 4)

| Year | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|----------|------|------|------|------|------|------|
| Visitors | 8600 | 7800 | 5200 | 6400 | 6200 | 4800 |

5(a) Use the information in the table above to plot a line graph on the axes below.

[2 marks]



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