

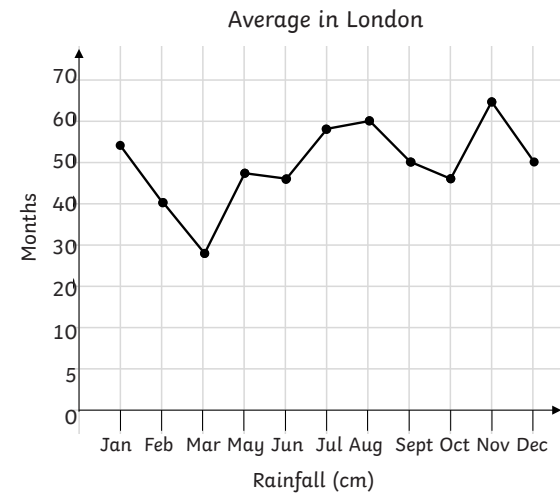
Statistics - Line Graphs

Maths Mastery Challenge Cards



Maths Mastery - Statistics - Line Graphs

1. Explain the mistakes in this line graph showing average rainfall in London, which is drawn from the information in the table.

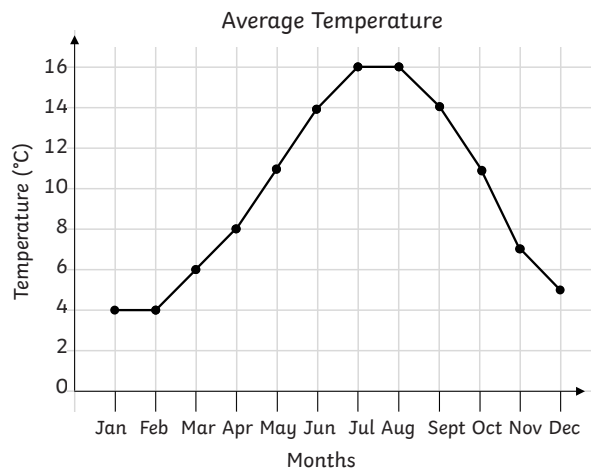


Month	Rainfall (mm)
January	54
February	40
March	28
April	38
May	48
June	46
July	58
August	60
September	50
October	57
November	65
December	50

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2. Explain why each of the following statements are true or false.

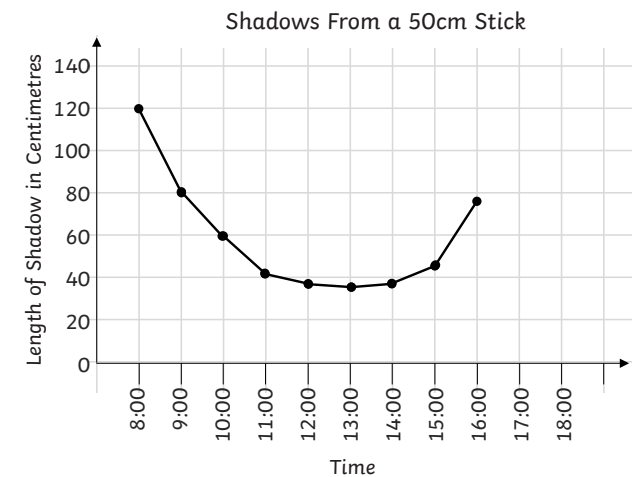
- The lowest temperature is 5°C
- The difference between the highest and lowest temperature is 12°C.
- The temperature rose 11°C from March to May.
- The largest fall in temperature was from October to November.



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3. This graph shows the length of a shadow at each hour:

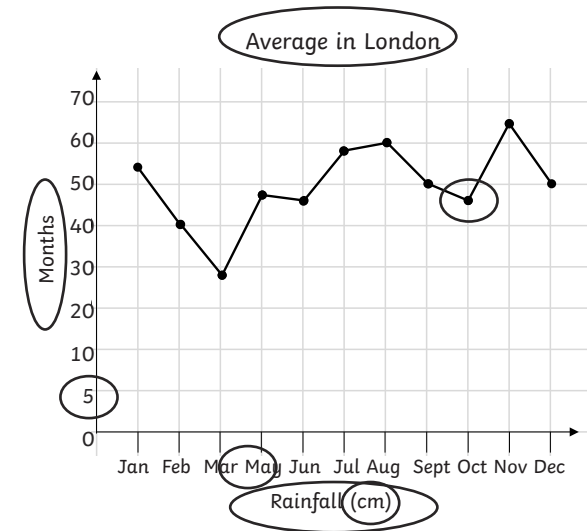
- When was the shadow shortest?
- What was the difference between the shortest and longest shadow?
- By how much did the shadow change between 8:00am and 10:00am?
- What time would you expect the shadow to be 120cm again?



Maths Mastery Statistics - Line Graphs Answers

1. Spot the Mistakes. These are the mistakes:

- Scale – 0, 5, 10, 20, 30 40, 50, 60
- **April** is missing on the graph.
- The value for October should be **57** on the graph.
- Title should be 'Average **Rainfall** in London'
- "**Month**" and "**Average rainfall (cm)**" need to be swapped round.
- Units are wrong in rainfall it should be **mm**.



2. True or False. Explain why each of the following statements are true or false.

- False: 4°C
- True: 16°C – 4°C or read on graph.
- False: 5°C; 11°C is the temperature in May.
- True: largest difference between points on the graph.

3. Solve. This graph shows the length of a shadow at each hour.

- 13:00
- 81-82cm
- 60cm
- 17:00