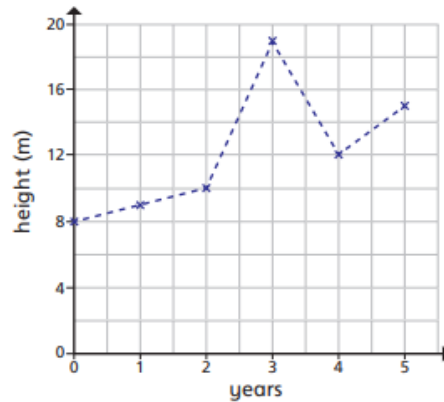


Good morning Year 4s, for maths today, please go to <https://whiterosemaths.com/homelearning/year-4/> and find **Summer term - week 10 -**

## Line graphs



- 1 The line graph shows the growth of a tree.



- a) What is the difference in height between the start and end of recording?  m
- b) How much did the tree grow between the 2nd and 3rd year?  m
- c) What happened in year 3? What might have caused this?
- d) By the 6th year the tree grows to three times the height it was in the 1st year.

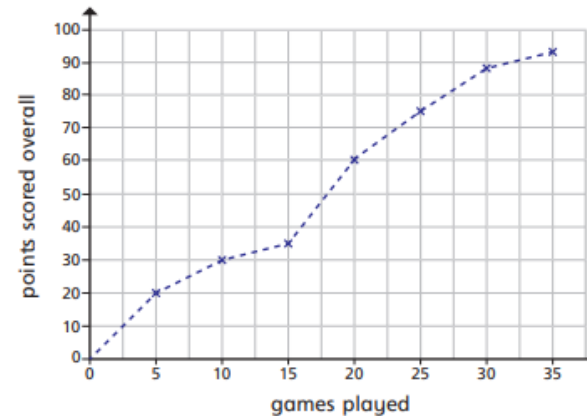


The tree will be at the tallest height it has ever been.

Do you agree with Whitney? \_\_\_\_\_

Explain your answer.

- 2 The line graph shows the number of points scored over 35 games.



- a) Use the line graph to complete the table.

Games	0	5						
Points	0						88	93

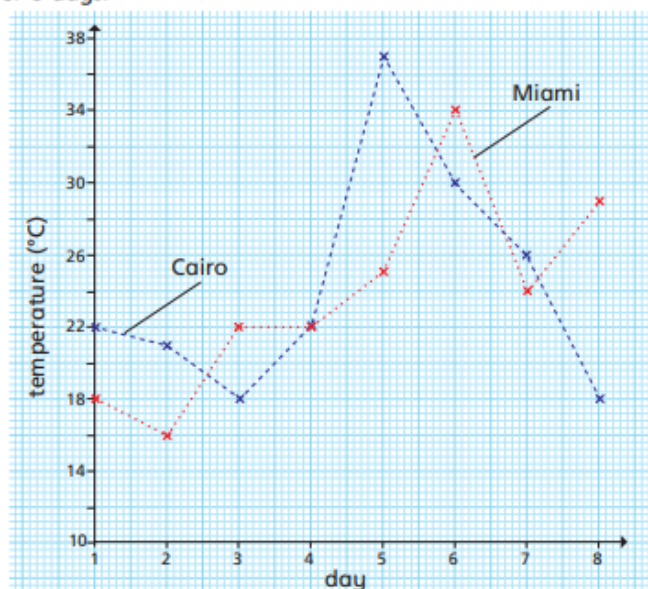
- b) How many points were scored between games 10 and 25?
- c) Between which games did the points exactly double?  
between game  and game
- d) Between which games were the least number of points scored?  
game  and game
- e) Estimate how many games it took to score 50 points.

## Lesson 4

Watch the teaching video 'Line graphs' and then complete the worksheet and the **challenge** below.

I have also included a link to a **line graph game**.

- 3 The line graph shows the temperatures in Miami and Cairo over 8 days.



- a) On what day was the temperature the same in both cities?

day

- b) What is the difference in temperature between the hottest days in both cities?  °C

- c) What is the difference between the hottest recorded temperature and the lowest recorded temperature?  °C

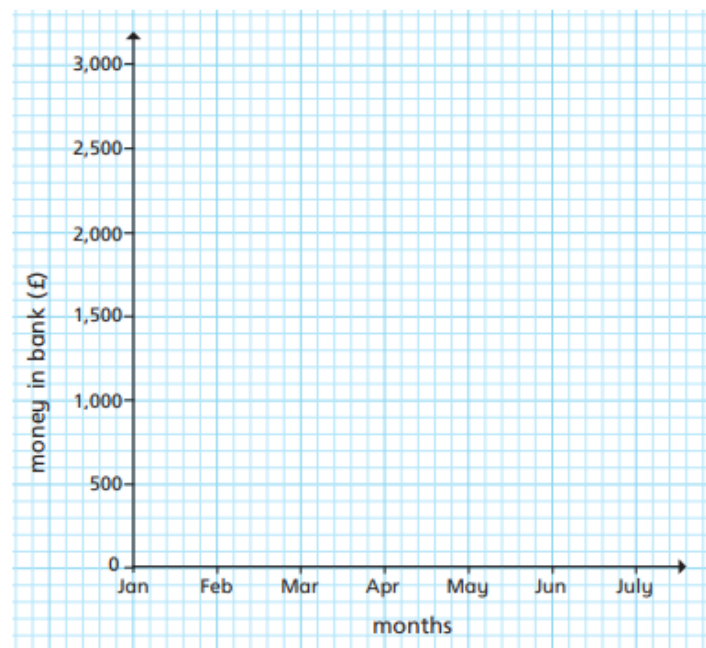
- d) On which days was it warmer in Cairo than Miami?

\_\_\_\_\_

- e) On what day was there the greatest difference in temperature between the two cities?

day

- 4 Use the clues to complete the line graph.



- In February there was £2,800 in the bank, which was the largest overall amount.
- May had the lowest amount.
- In March there was half the amount of February.
- In Jan there was £200 more than March.
- The total of March and April combined was £2,600
- The lowest amount was £2,400 less than the highest amount.
- In July and April there was the same amount of money.
- June = Feb – Mar – May

Compare answers with a partner.

## Challenge

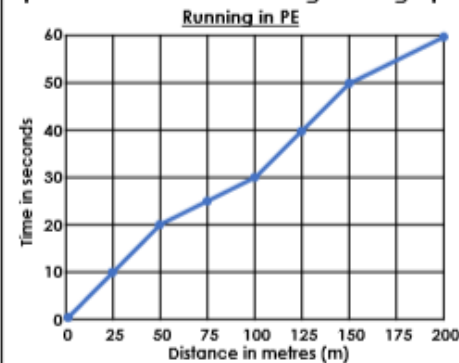
### Line Graphs

1. Use the line graph below to answer the following questions about the growth of a new born baby over 9 months.



- How long was the baby in April?
- When was the baby 59cm long?
- How many centimetres did the baby grow between March and September?
- What was the difference between the length of the baby in May and October?

2. Tara has been timing herself in PE when running for 60 seconds. Complete the questions and answers using Tara's graph.



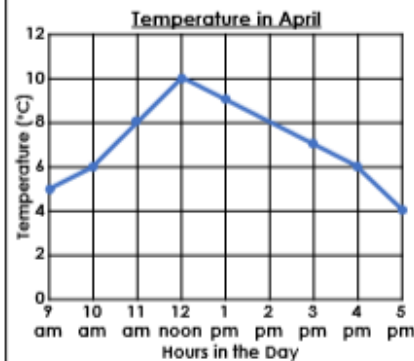
A. How much further did Tara run in the final 10 seconds than in the first 10 seconds?

B. Was Tara faster running 50 to 75 metres or 100 to 125 metres?

C.

10 seconds

3. Some children recorded the temperature in April. Which story matches the line graph below? Explain your answer.



Max took the temperature at 9am, by 5pm it had decreased by 1 degree.

Pearl took the temperature at 9am, by 3pm it had decreased by 1 degree.

Emily took the temperature at 9am, by 1pm it had increased by 5 degrees.

Maya took the temperature at 10am, by 5pm it was 1 degree less.

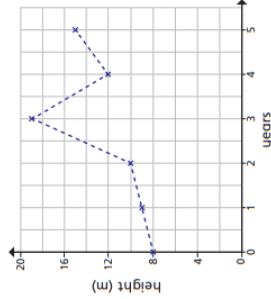
## Game

<https://kids.classroomsecrets.co.uk/resource/year-4-line-graphs-game/>

## Answers

### Line graphs

1 The line graph shows the growth of a tree.



- What is the difference in height between the start and end of recording?  
7 m
- How much did the tree grow between the 2nd and 3rd year?  
9 m
- What happened in year 3?  
What might have caused this?
- By the 6th year the tree grows to three times the height it was in the 1st year.

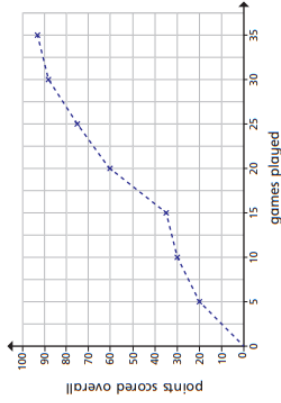


The tree will be at the tallest height it has ever been.

Do you agree with Whitney? yes  
Explain your answer.

2

The line graph shows the number of points scored over 35 games.



a) Use the line graph to complete the table.

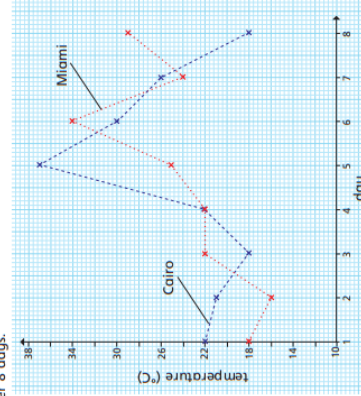
Games	0	5	10	15	20	25	30	35
Points	0	20	30	35	46	75	88	93

- How many points were scored between games 10 and 25?  
45
- Between which games did the points exactly double?  
between game 10 and game 20
- Between which games were the least number of points scored?  
game 30 and game 35  
(or 10 and 15)
- Estimate how many games it took to score 50 points.  
18

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3

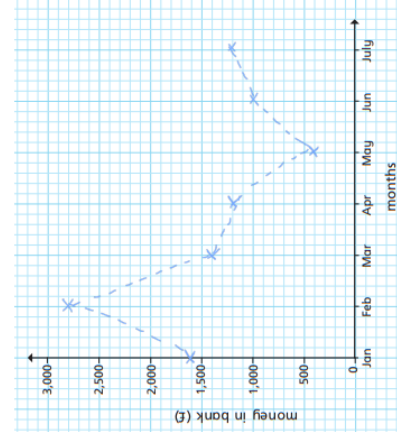
The line graph shows the temperatures in Miami and Cairo over 8 days.



- On what day was the temperature the same in both cities?  
day 4
- What is the difference in temperature between the hottest days in both cities?  
3 °C
- What is the difference between the hottest recorded temperature and the lowest recorded temperature?  
21 °C
- On which days was it warmer in Cairo than Miami?  
1, 2, 5, 7
- On what day was there the greatest difference in temperature between the two cities?  
day 5

4

Use the clues to complete the line graph.



- In February there was £2,800 in the bank, which was the largest overall amount.
  - May had the lowest amount.
  - In March there was half the amount of February.
  - In Jan there was £200 more than March.
  - The total of March and April combined was £2,600.
  - The lowest amount was £2,400 less than the highest amount.
  - In July and April there was the same amount of money.
  - June = Feb - Mar - May
- Compare answers with a partner.

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## Line Graphs

1. A. 54 cm; B. July; C. 9cm; D. 6cm. 2. A. 25 metres; B. 50 to 75 metres; C. Various answers including questions such as – How long did it take Tara to run 50 to 100 metres? 3. Max is correct because at 9am the temperature was 5 degrees and at 5pm it was 4 degrees. The temperature had decreased by 1 degree.



