# STATISTICS – DAY 3

L.O: I can explore line graphs

# SUCCESS CRITERIA

- ✓ I can explore line graphs that show changes of length, mass, temperature or volume over time
- ✓ I can explain my reasoning when exploring line graphs that show changes of length, mass, temperature or volume over time

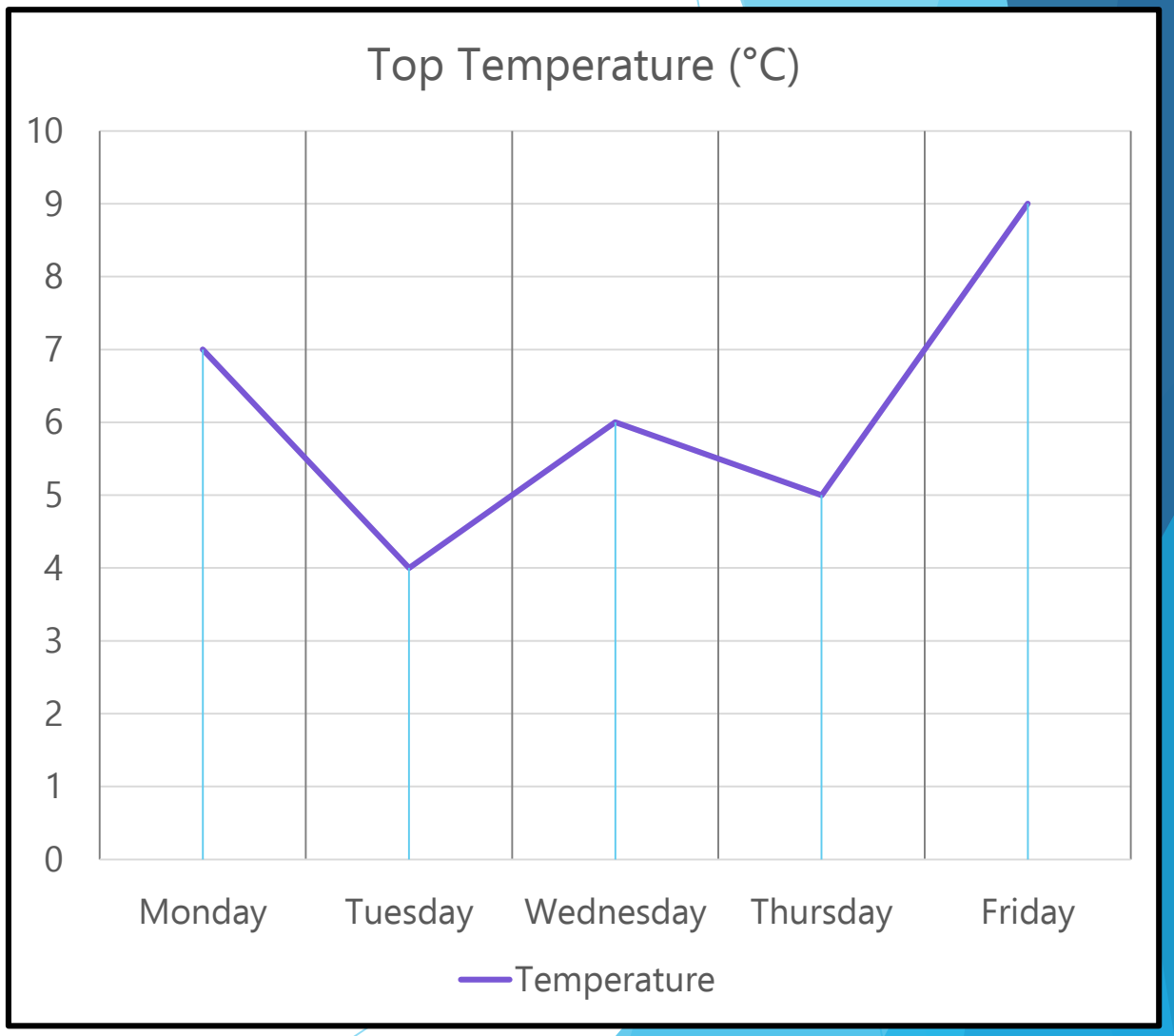
# To be able to explore line graphs

Starter:

Find the highest temperatures on Monday, Wednesday and Friday.

Which of the three days mentioned above doesn't belong?

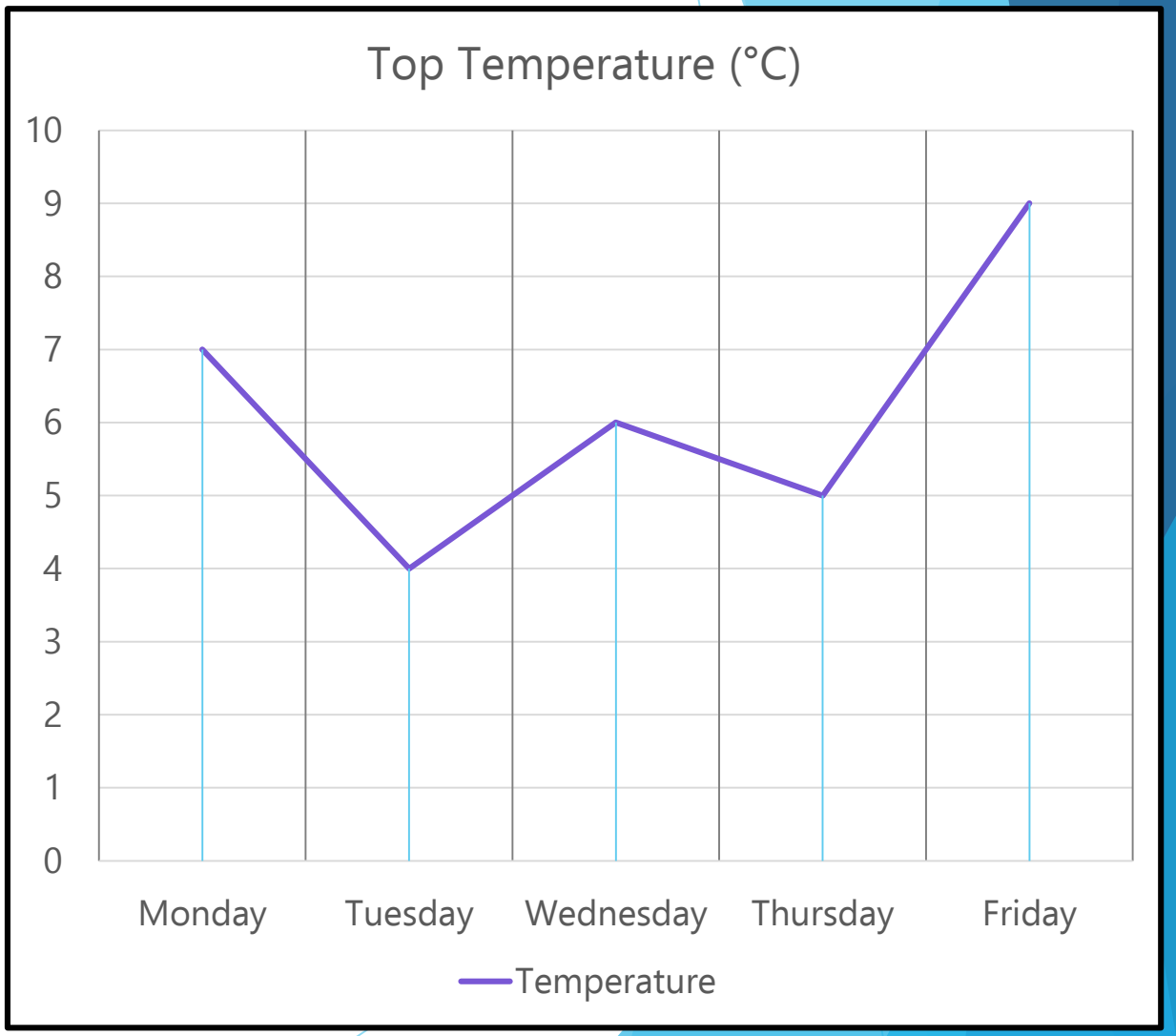
Explain your answer.



# To be able to explore line graphs

Starter:

Find the highest temperatures on Monday, Wednesday and Friday.



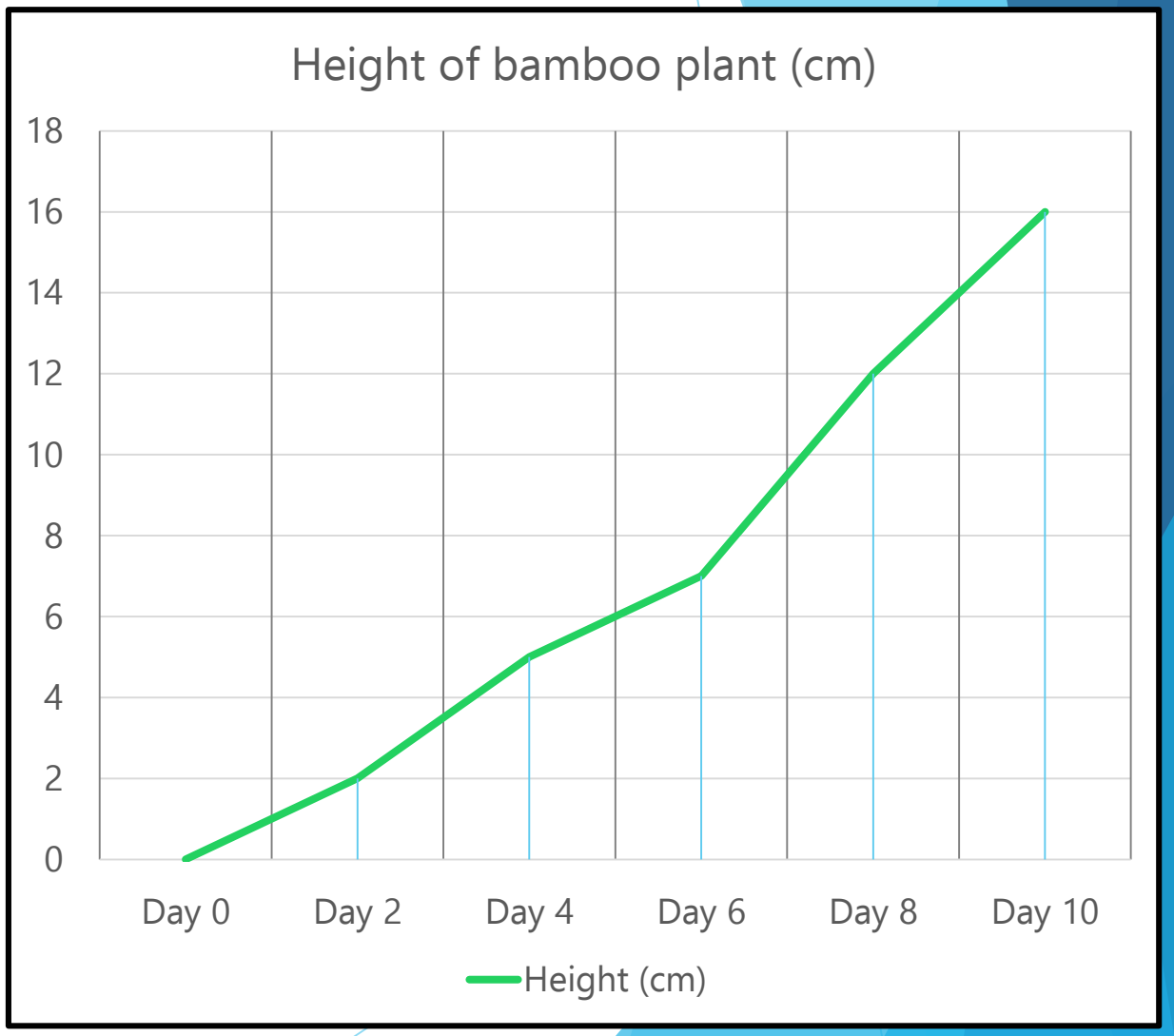

Wednesday doesn't belong as it has an even temperature, 6°C, whereas Monday and Friday have odd measurements, 7°C and 9°C.

# To be able to explore line graphs

The chart shows the growth of a bamboo plant over 10 days.

Complete the sentence below:

On Day 2, the plant was ___ cm tall.

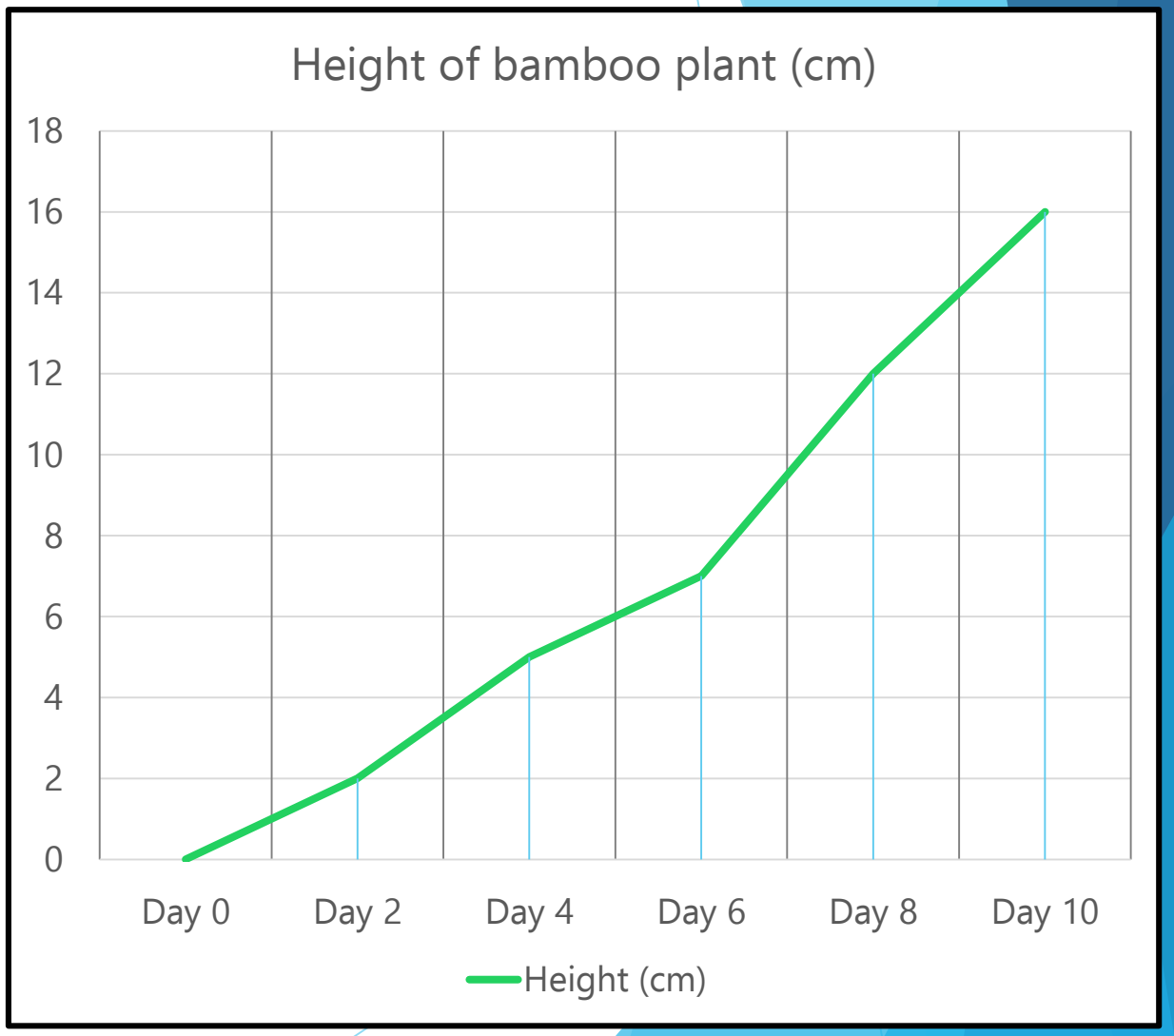


# To be able to explore line graphs

The chart shows the growth of a bamboo plant over 10 days.

Complete the sentence below:

On Day 2, the plant was **2** cm tall.

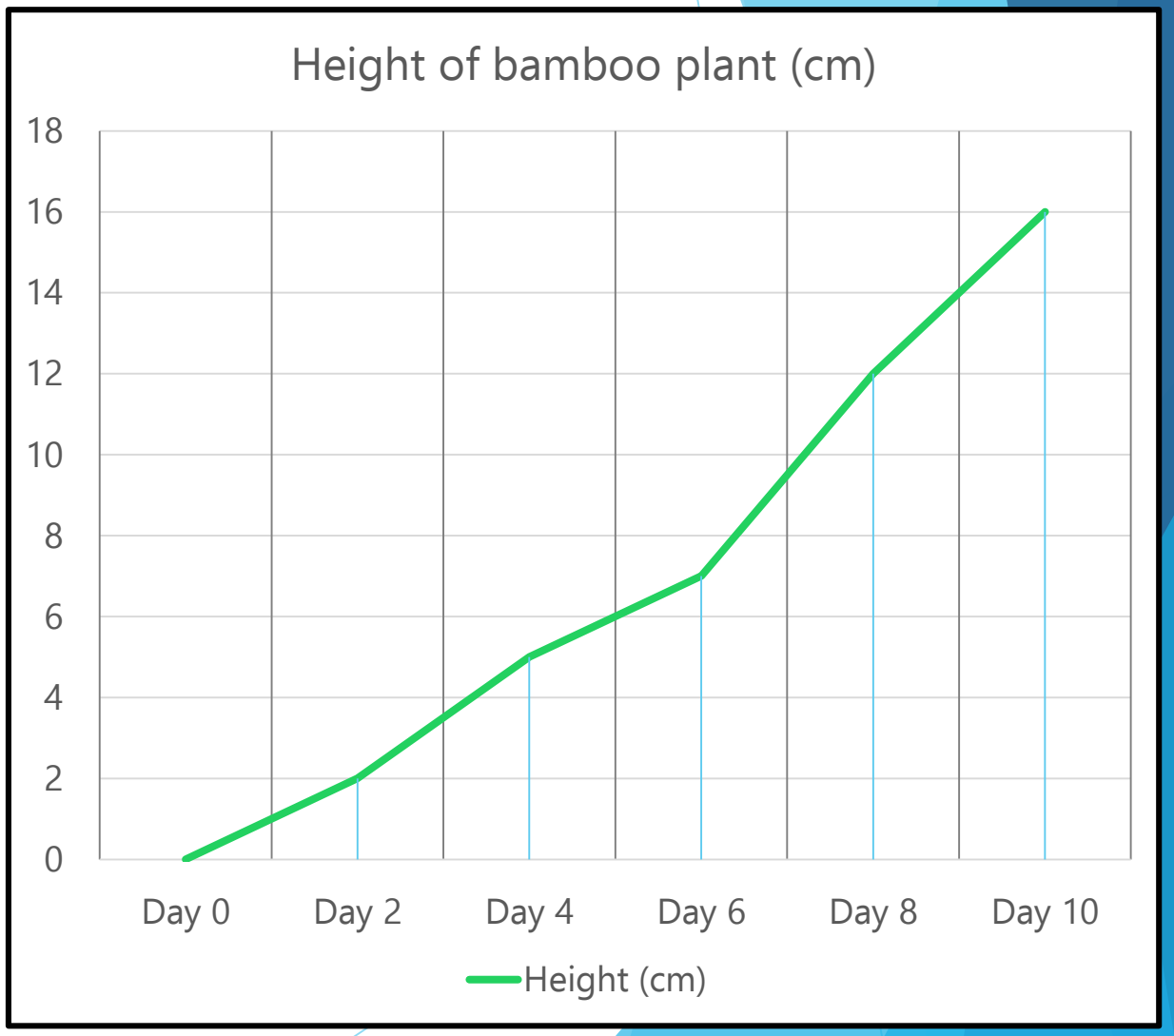


# To be able to explore line graphs

The chart shows the growth of a bamboo plant over 10 days.

Complete the sentence below:

The plant was 12 cm tall on Day ___.

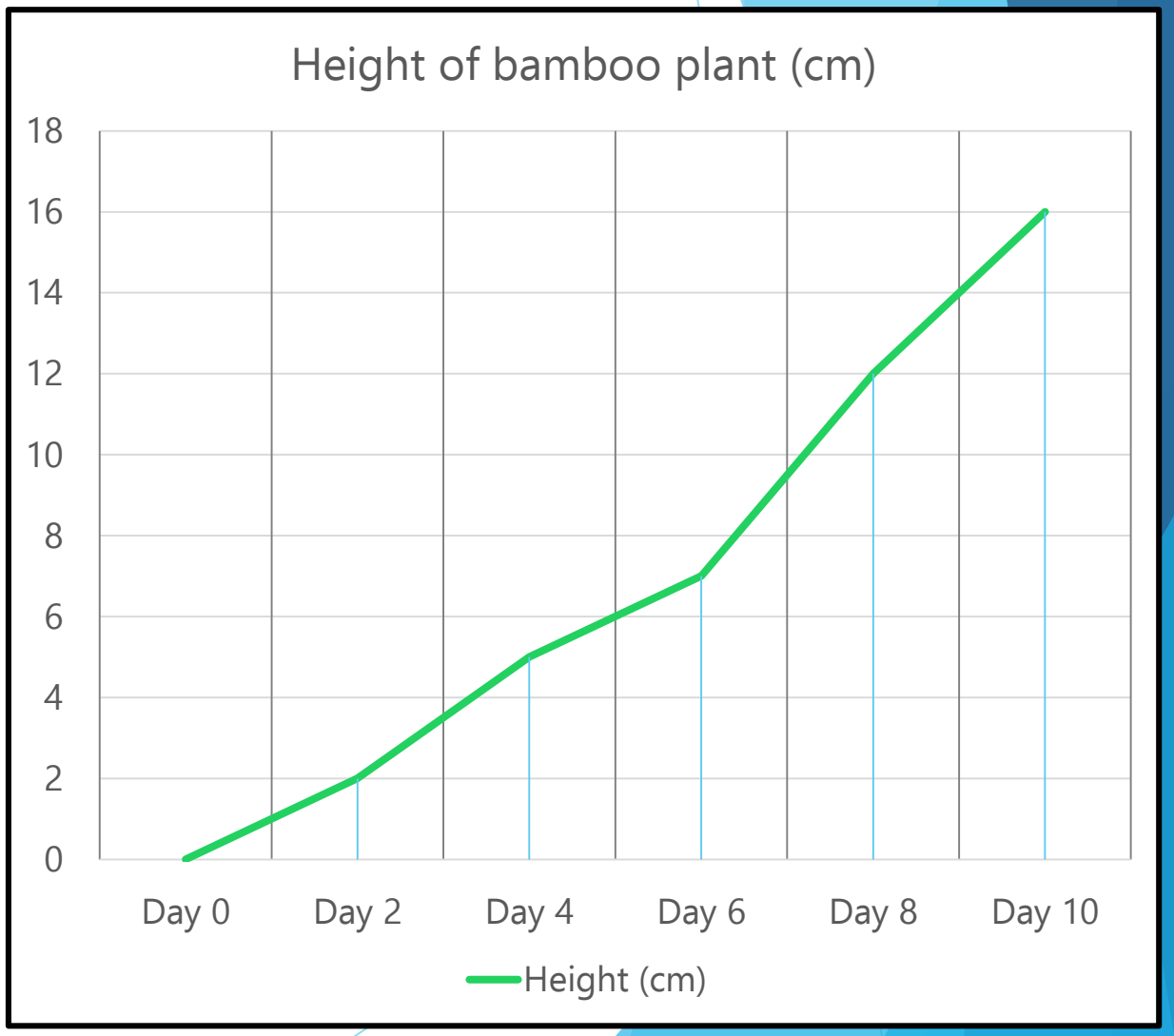


# To be able to explore line graphs

The chart shows the growth of a bamboo plant over 10 days.

Complete the sentence below:

The plant was 12 cm tall on Day **8**.

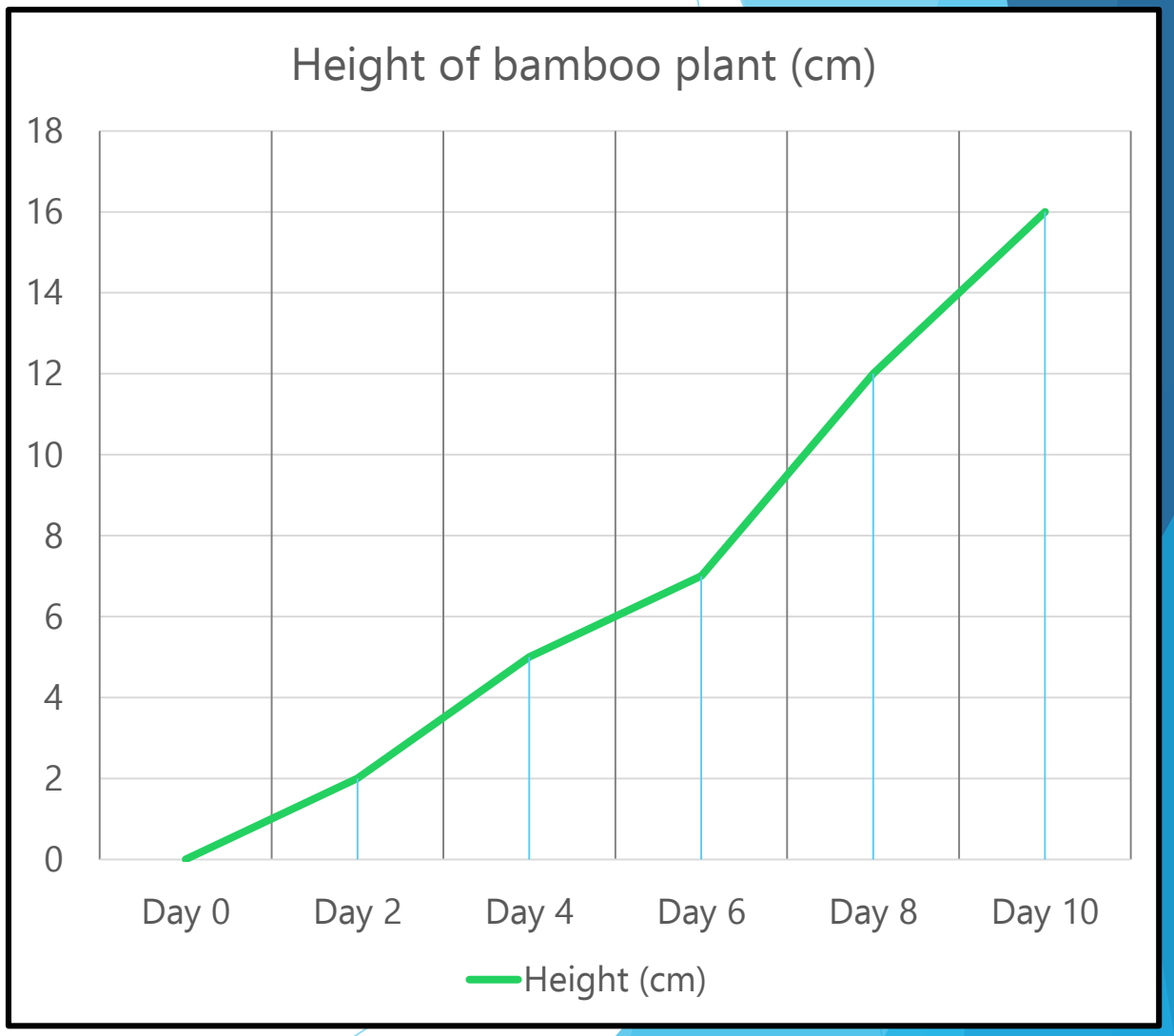


# To be able to explore line graphs

The chart shows the growth of a bamboo plant over 10 days.

Complete the sentence below:

The plant was ___ cm tall on Day 9.

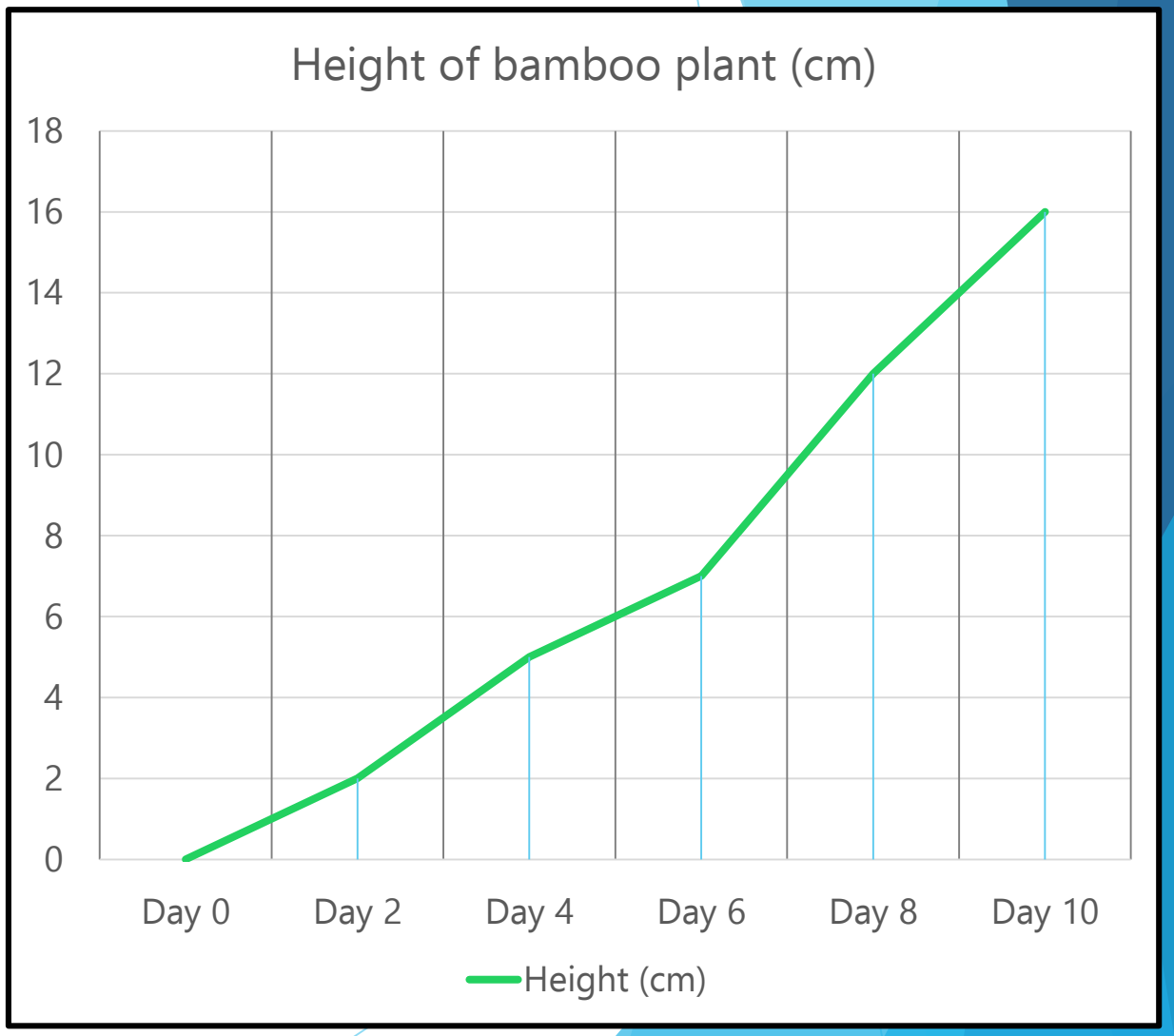


# To be able to explore line graphs

The chart shows the growth of a bamboo plant over 10 days.

Complete the sentence below:

The plant was **14** cm tall on Day 9.

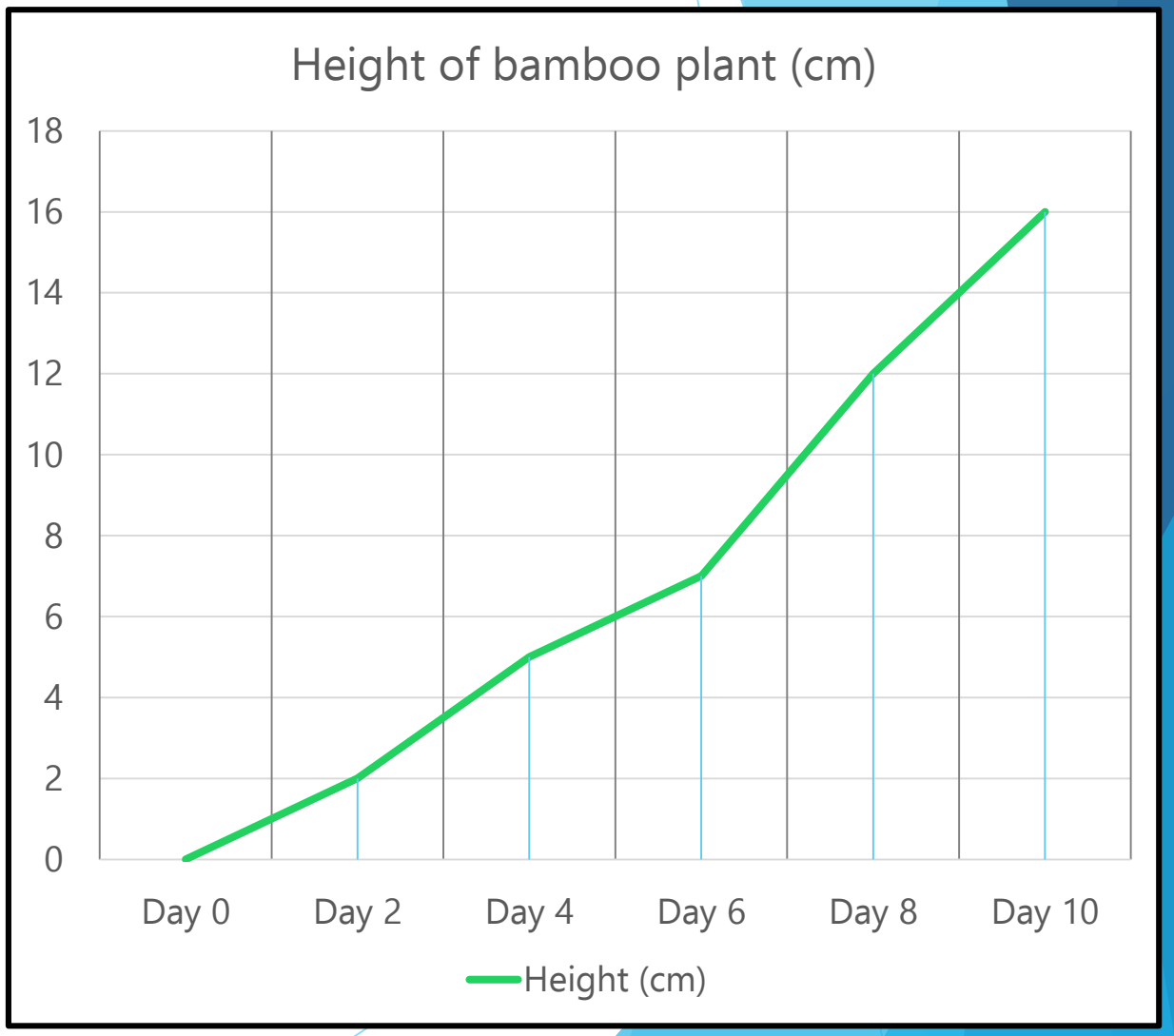


# To be able to explore line graphs

The chart shows the growth of a bamboo plant over 10 days.

Complete the sentence below:

The bamboo plant grew fastest between Days __ and __.

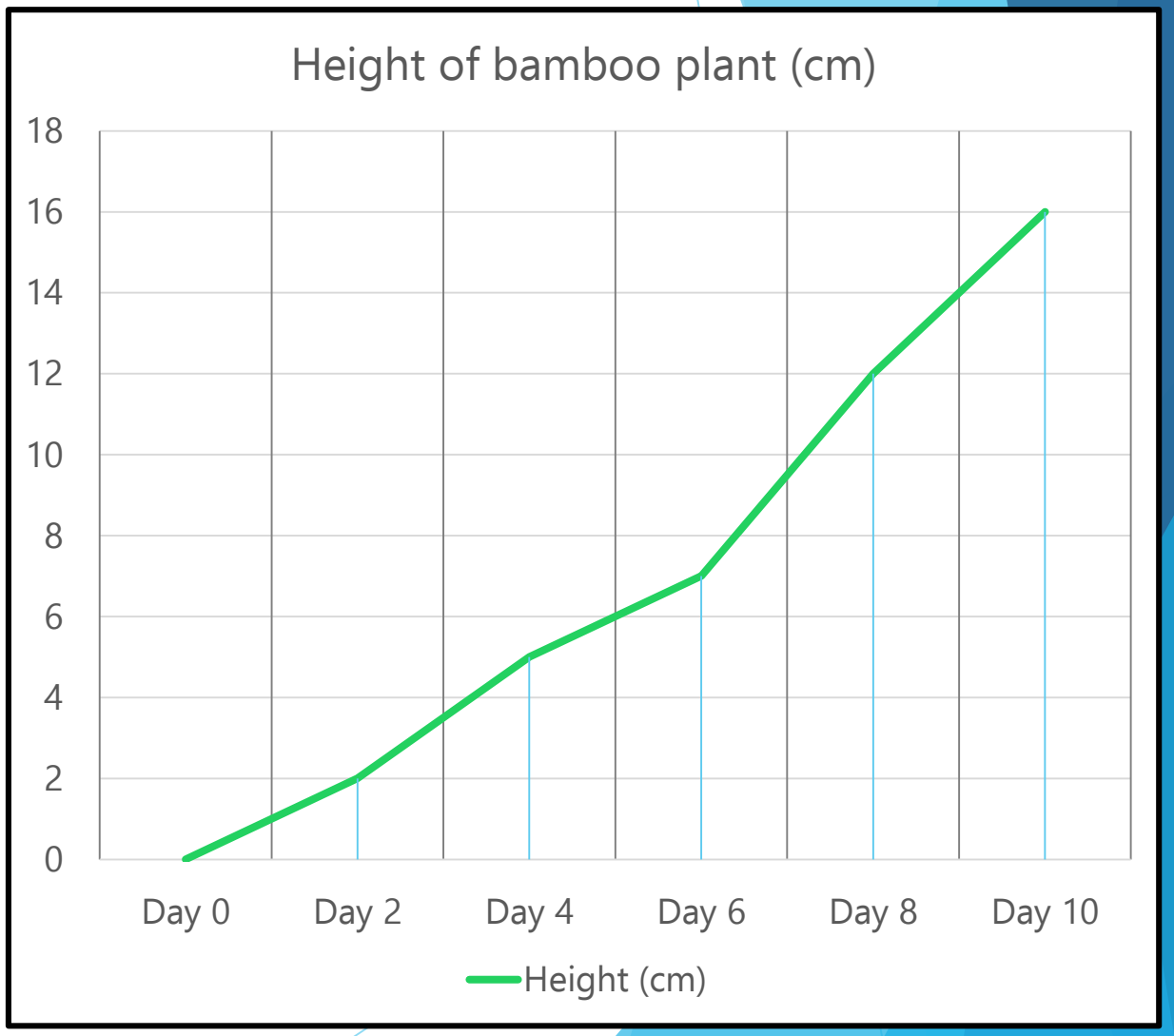


# To be able to explore line graphs

The chart shows the growth of a bamboo plant over 10 days.

Complete the sentence below:

The bamboo plant grew fastest between Days **6** and **8**.



# To be able to explore line graphs

Activity 1:

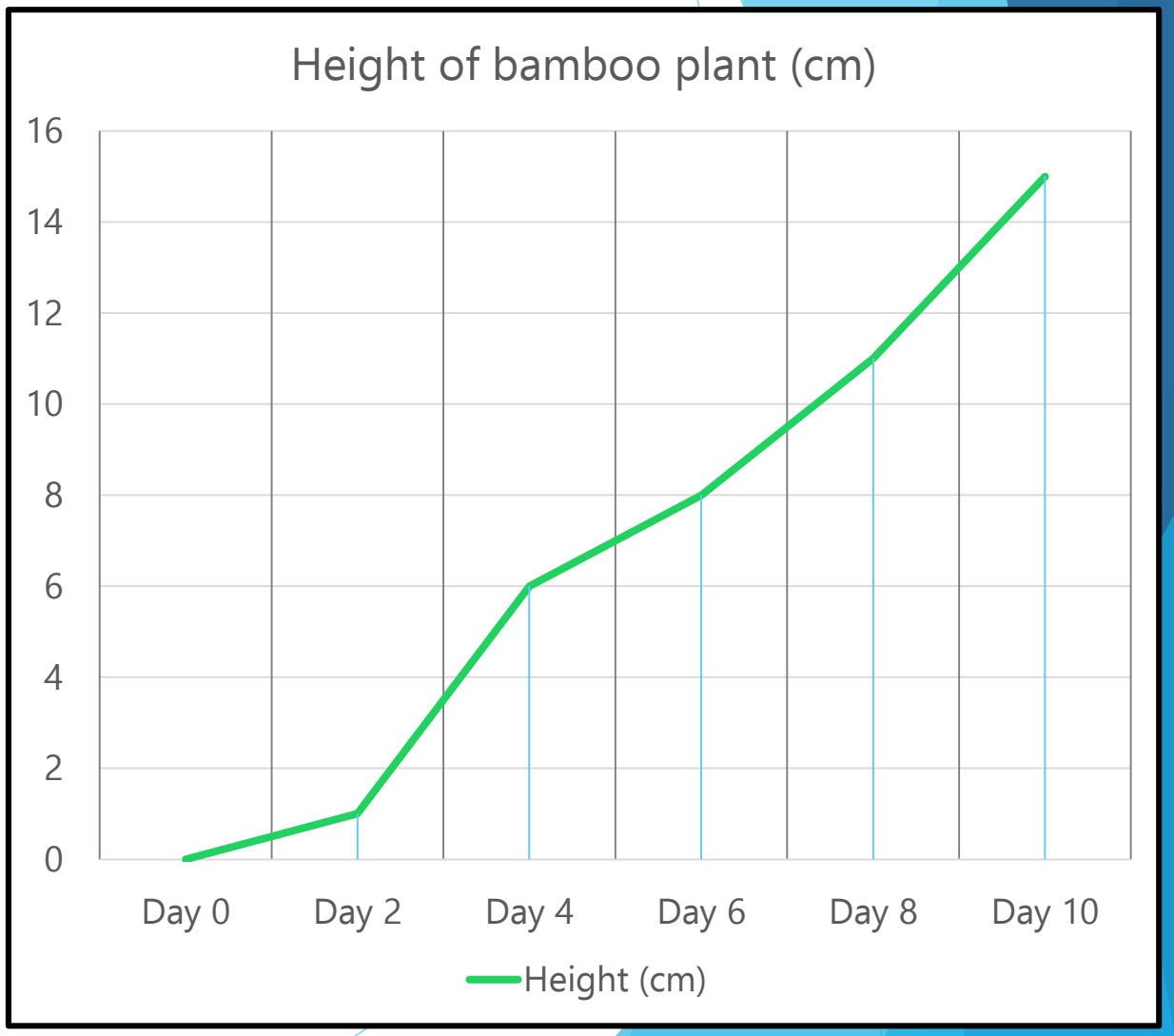
The chart shows the growth of a bamboo plant over 10 days.

Complete the sentence below:

On Day 2, the plant was ___ cm tall.

The plant was ___ cm tall on Day 9.

The bamboo plant grew slowest between Days __ and __.



# To be able to explore line graphs

Activity 1:

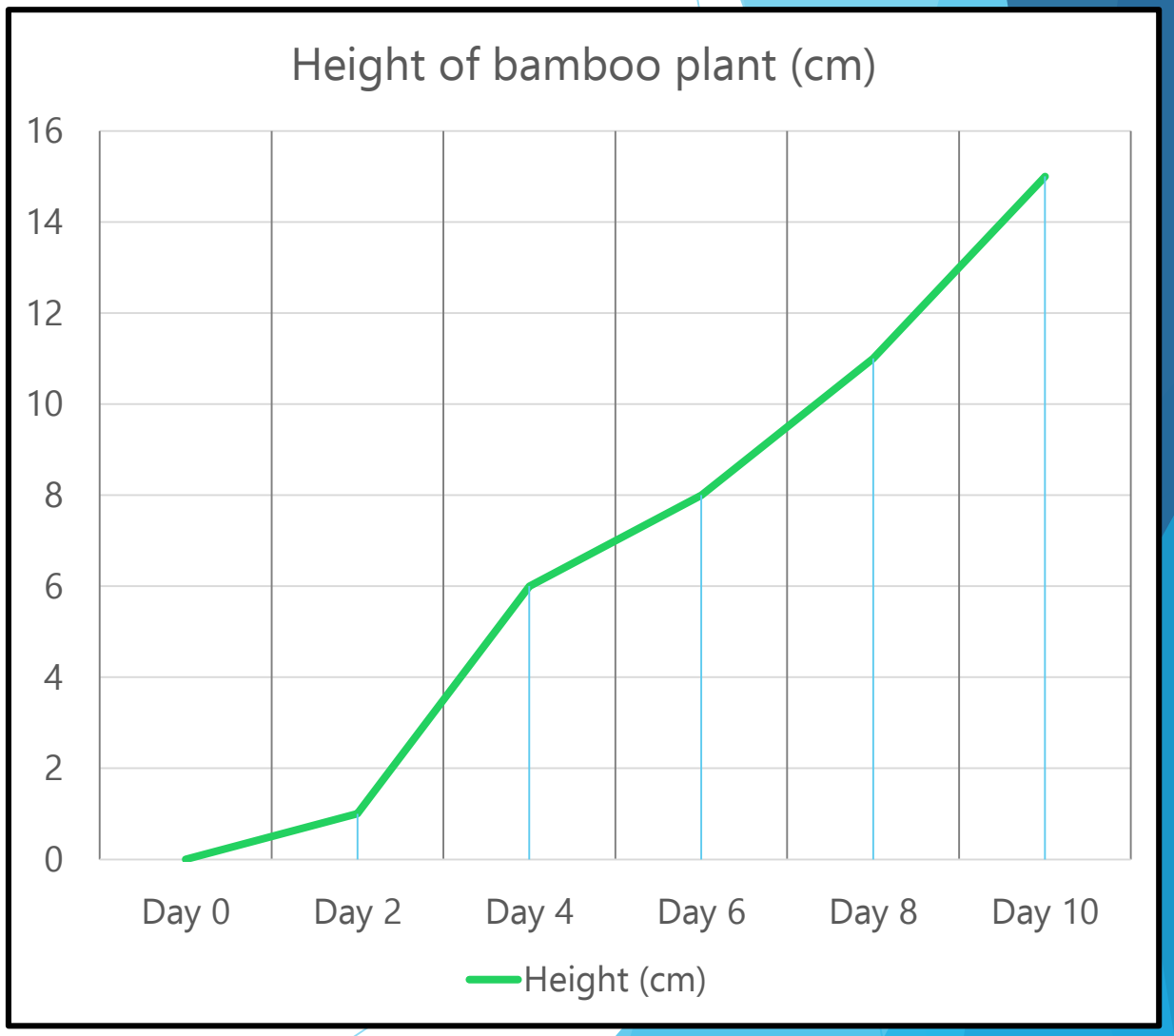
The chart shows the growth of a bamboo plant over 10 days.

Complete the sentence below:

On Day 2, the plant was 1 cm tall.

The plant was ___ cm tall on Day 9.

The bamboo plant grew slowest between Days __ and __.



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Activity 1:

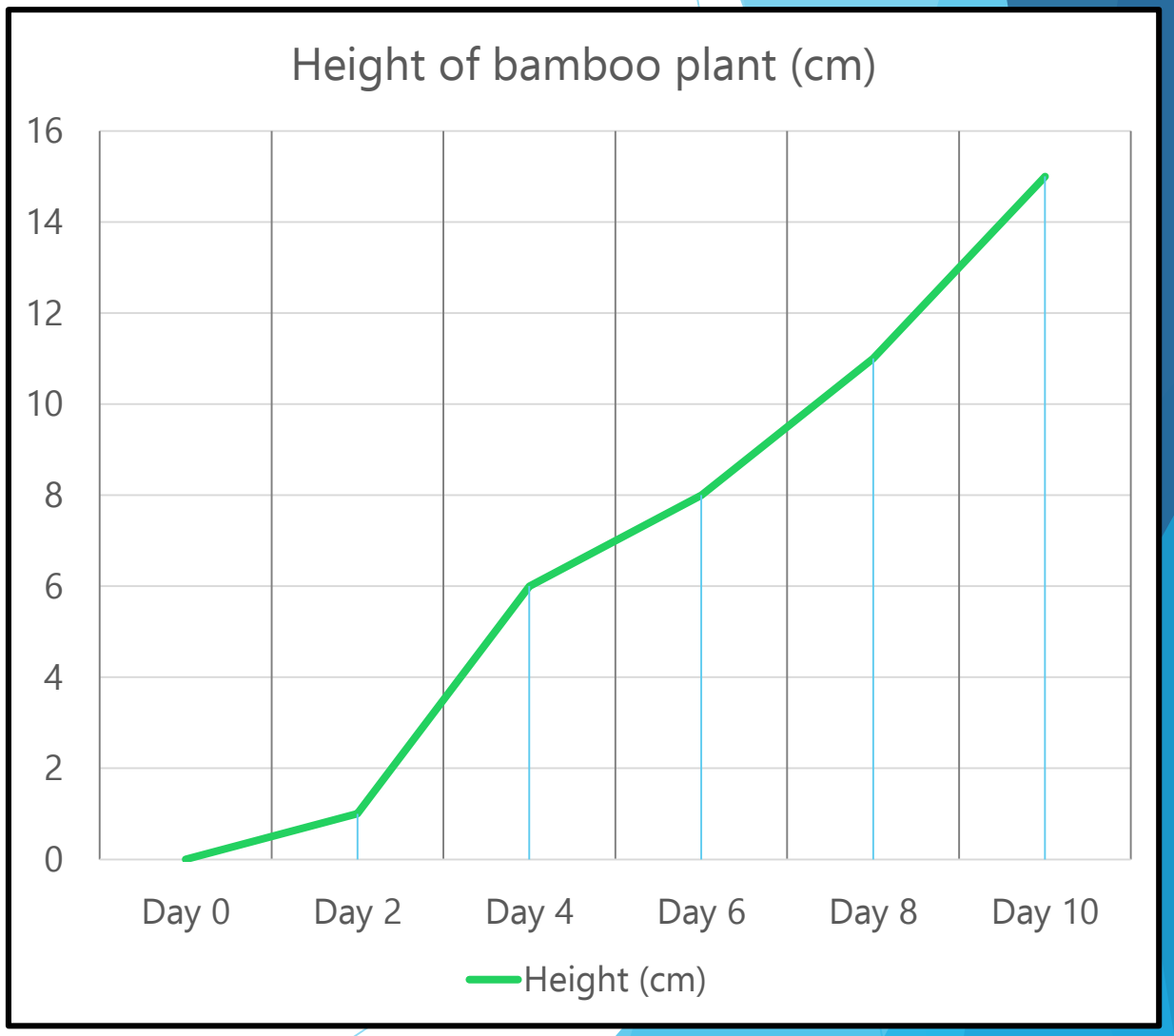
The chart shows the growth of a bamboo plant over 10 days.

Complete the sentence below:

On Day 2, the plant was **1** cm tall.

The plant was **13** cm tall on Day 9.

The bamboo plant grew slowest between Days __ and __.



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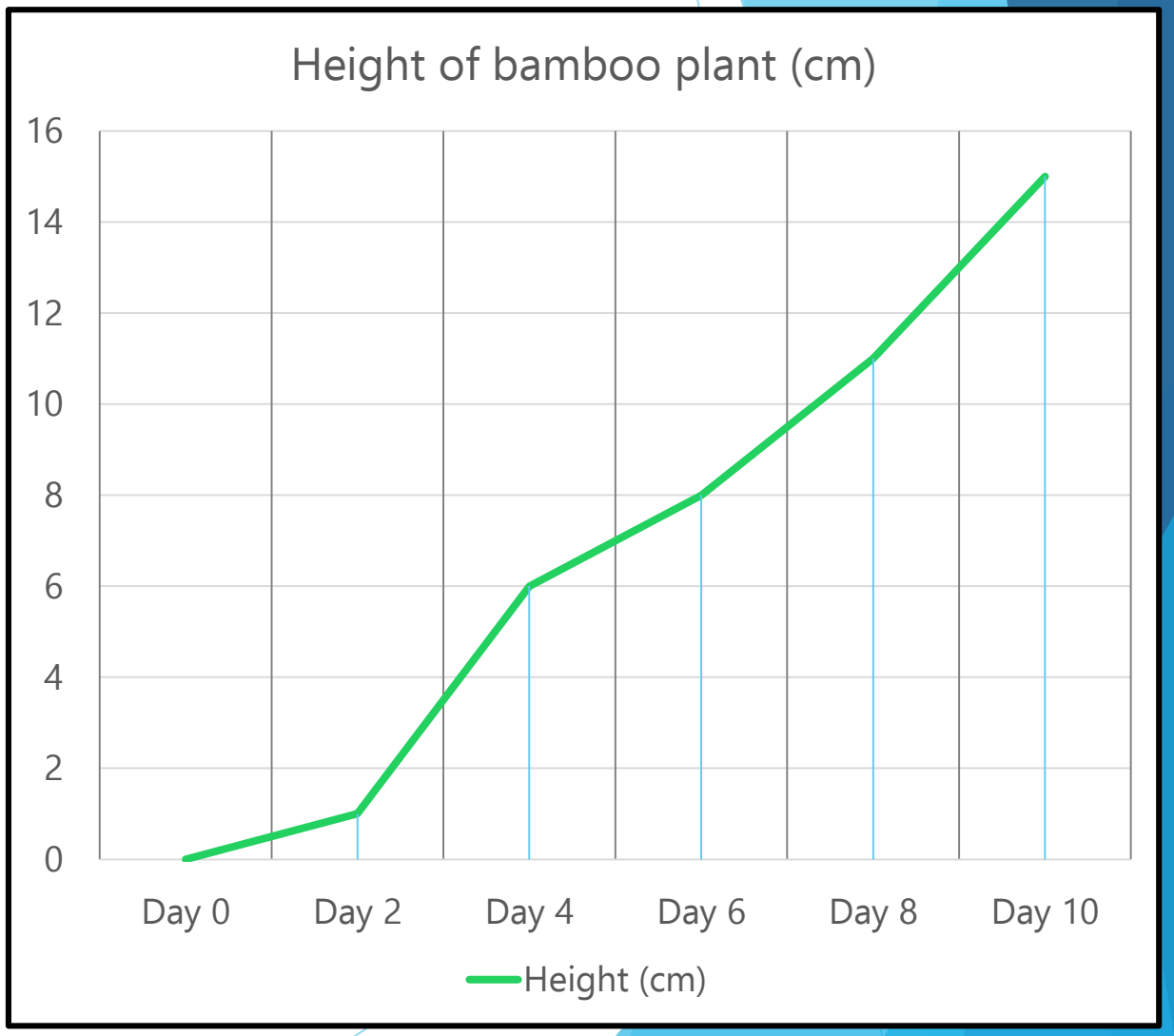
The chart shows the growth of a bamboo plant over 10 days.

Complete the sentence below:

On Day 2, the plant was **1** cm tall.

The plant was **13** cm tall on Day 9.

The bamboo plant grew slowest between Days **0** and **2**.



# To be able to explore line graphs

Activity 2:

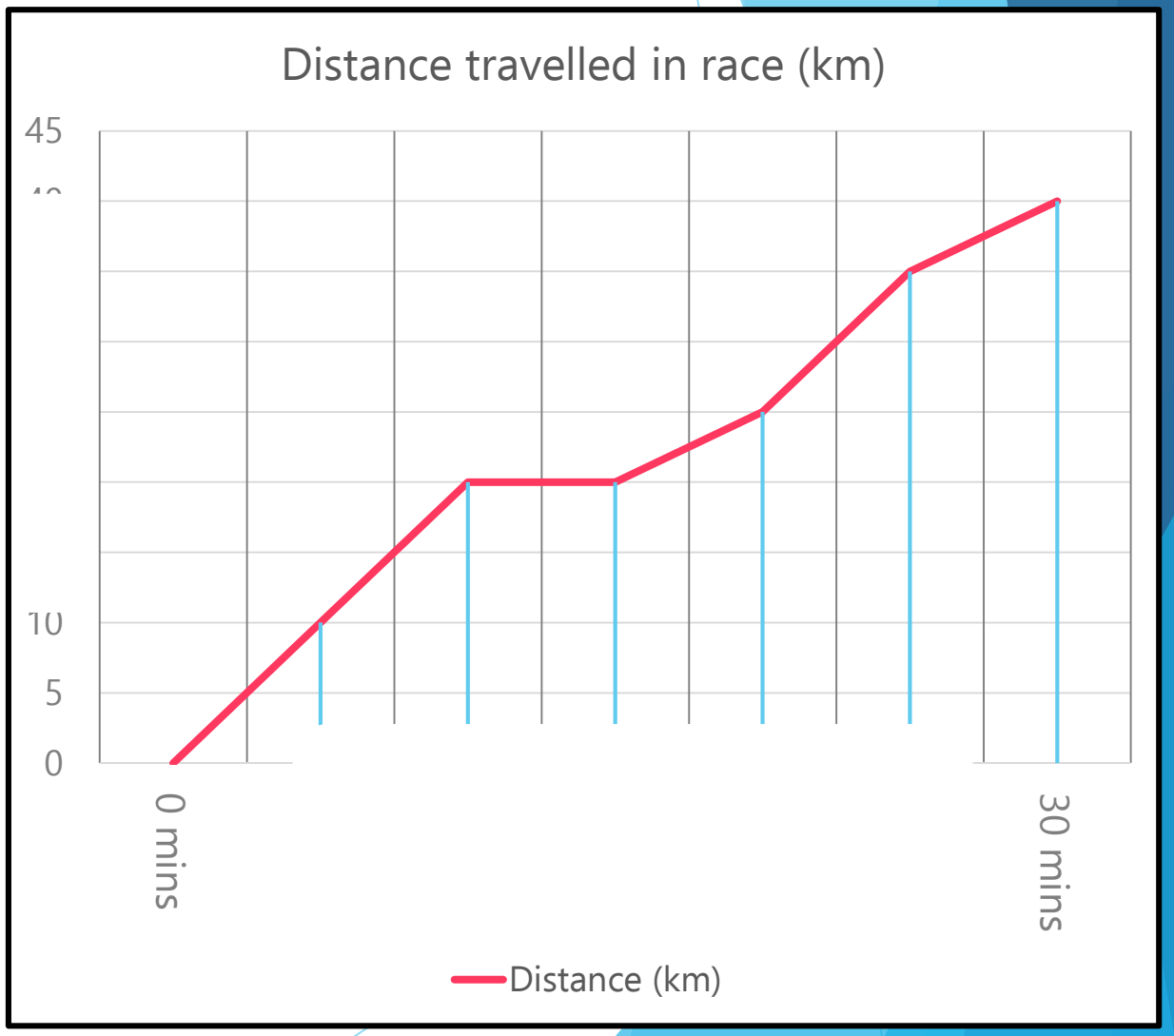
The line graphs shows the distance travelled by a driver in a race. Fill in the missing labels, then complete the sentences below:

It took ___ minutes to drive the first 20 km.

The driver had driven ___ km by minute 25.

The driver drove ___ km in total.

The driver drove ___ km between minutes 15 and 25.



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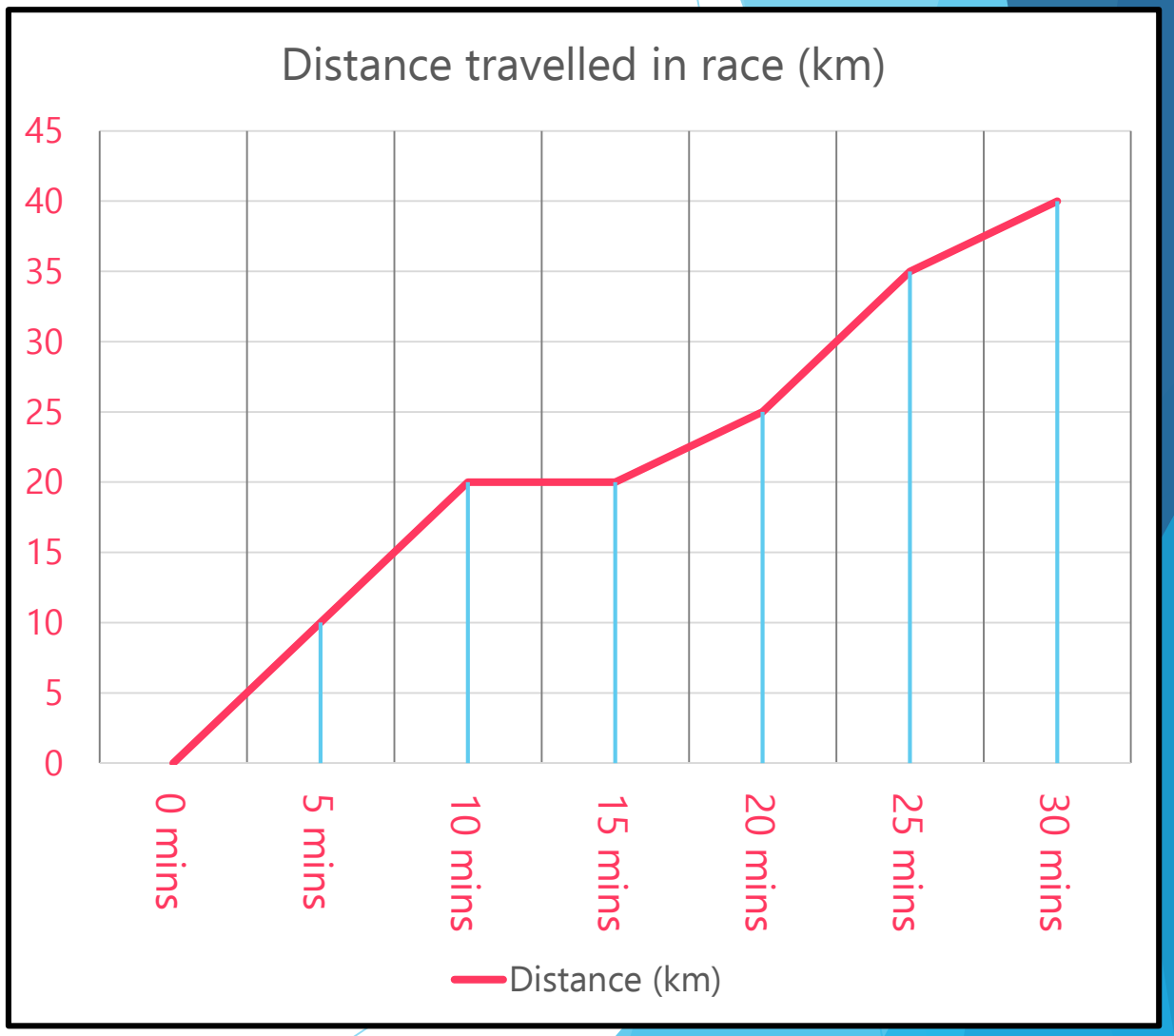

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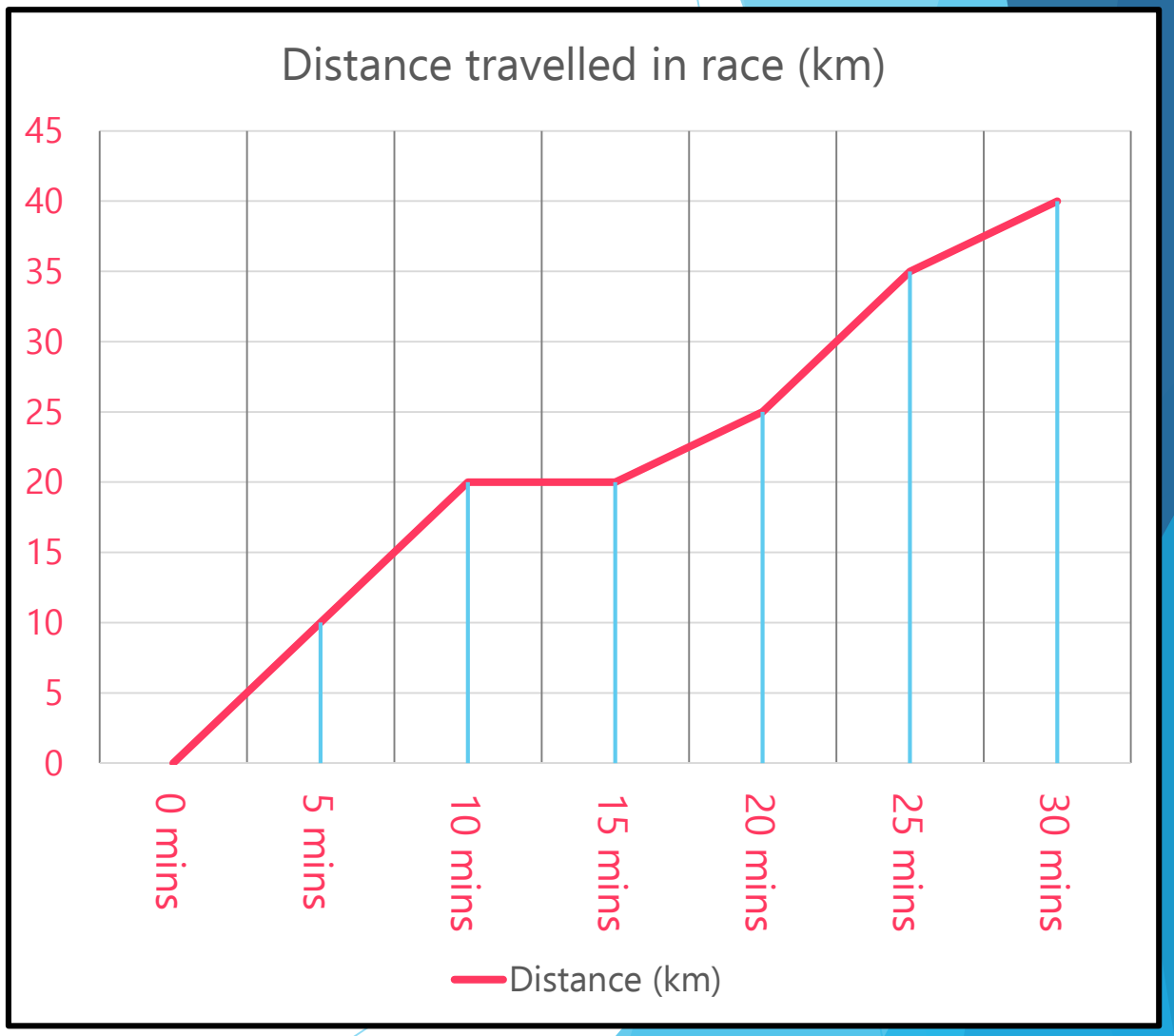
The line graphs shows the distance travelled by a driver in a race. Fill in the missing labels, then complete the sentences below:

It took **10** minutes to drive the first 20 km.

The driver had driven **35** km by minute 25.

The driver drove ___ km in total.

The driver drove ___ km between minutes 15 and 25.



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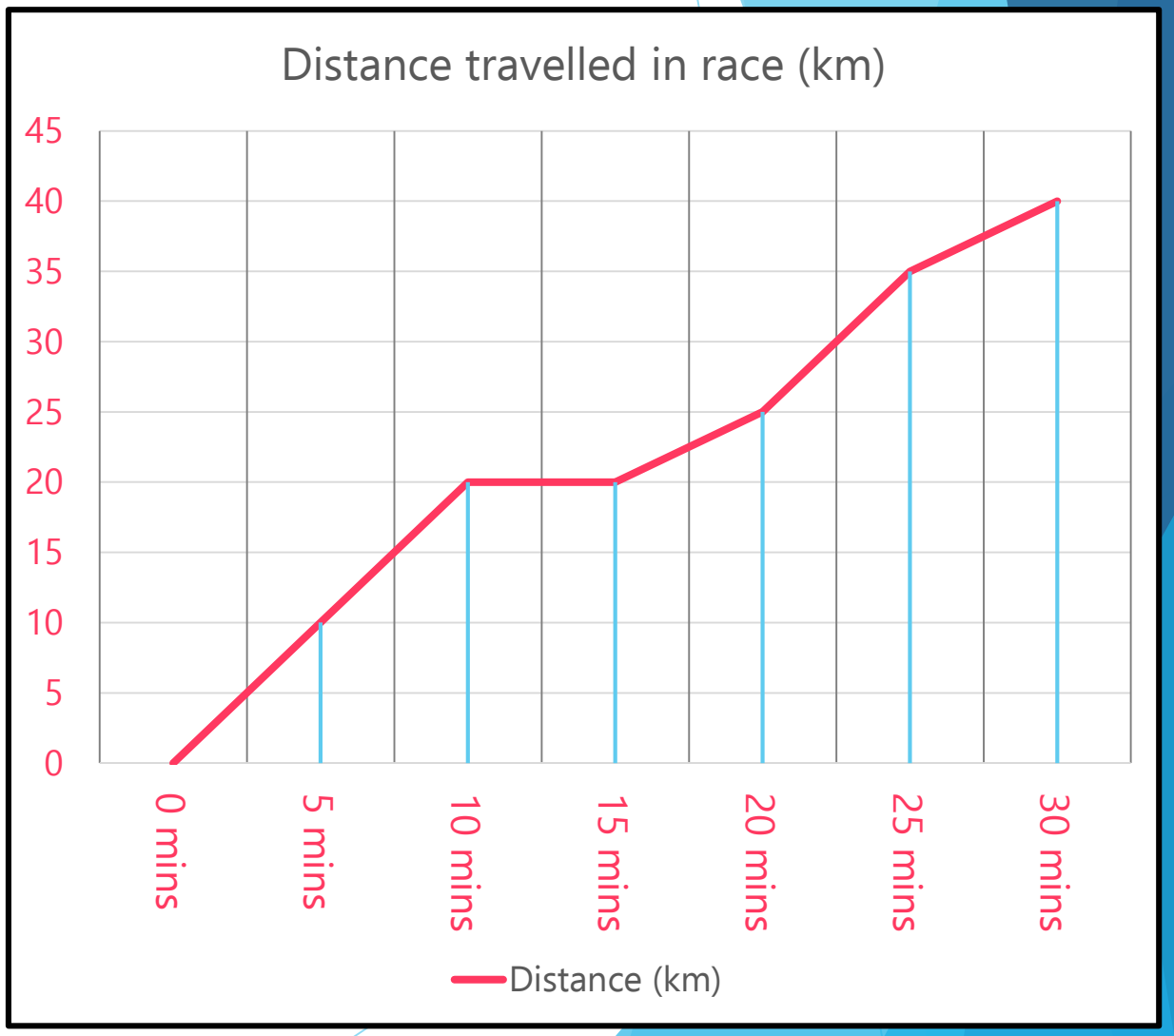
It took **10** minutes to drive the first 20 km.

The driver had driven **35** km by minute 25.

The driver drove **40** km in total.

The driver drove ___ km between minutes 15 and 25.



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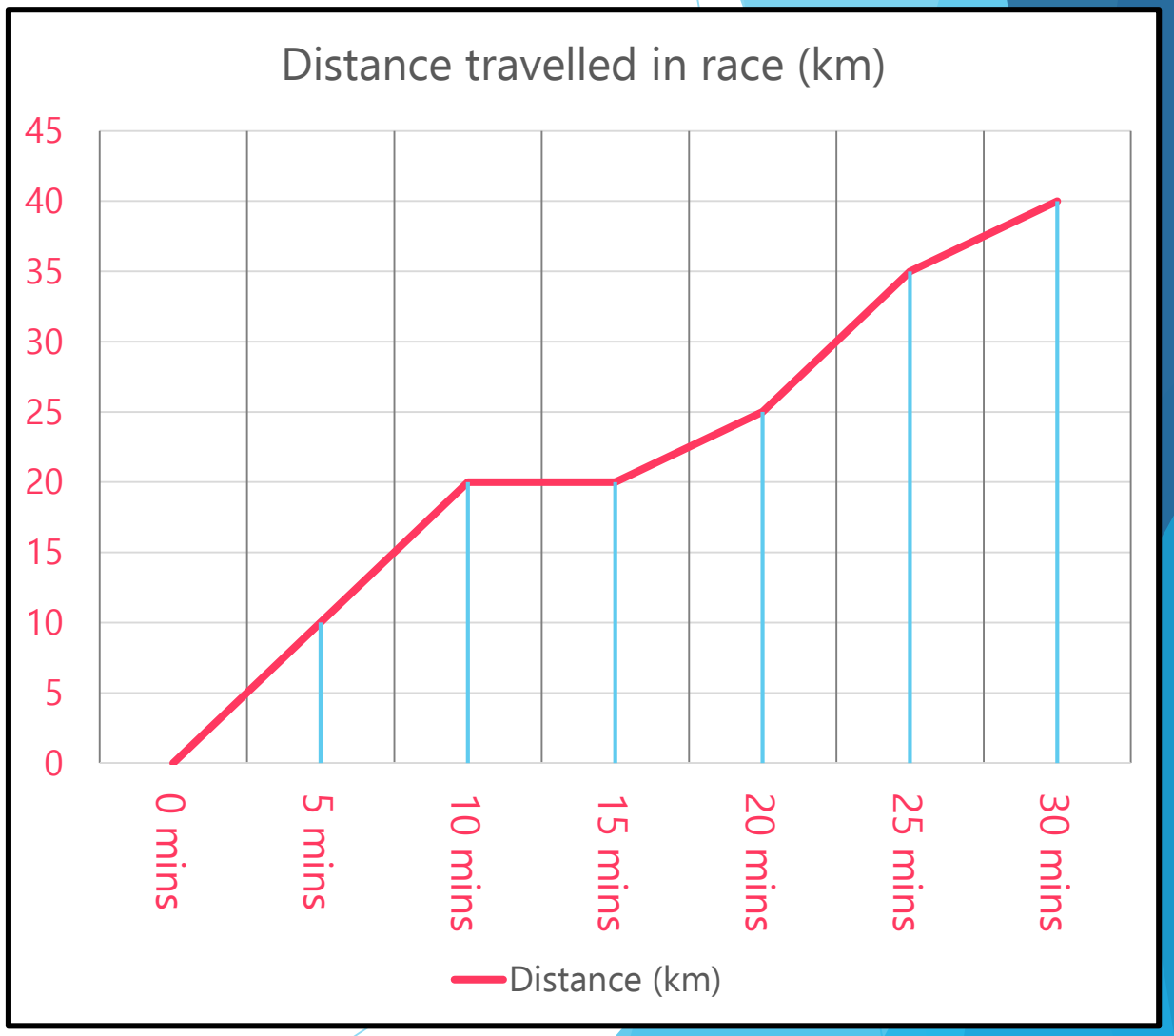


# To be able to explore line graphs

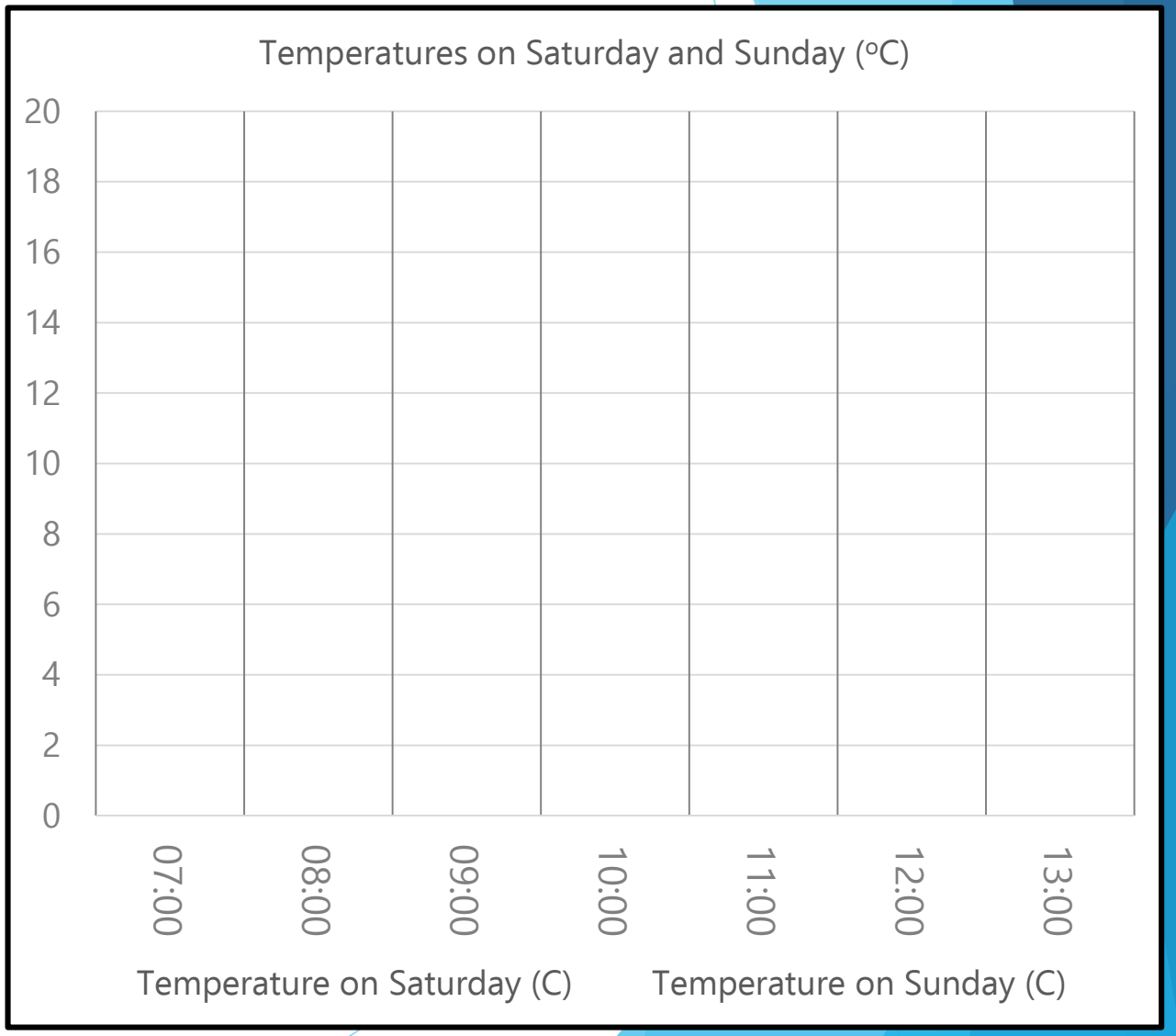
Activity 3:

Use the tables to complete the line graph, then complete the sentence below.

| Time | Temperature on Saturday (C) | Temperature on Sunday (C) |
|---|---|---|
| 07:00 | 12 | 7 |
| 08:00 | 10 | 9 |
| 09:00 | 11 | 12 |
| 10:00 | 13 | 15 |
| 11:00 | 15 | 13 |
| 12:00 | 18 | 14 |
| 13:00 | 17 | 12 |

The temperature was __°C hotter on Saturday than Sunday at midday.

Write your own questions!



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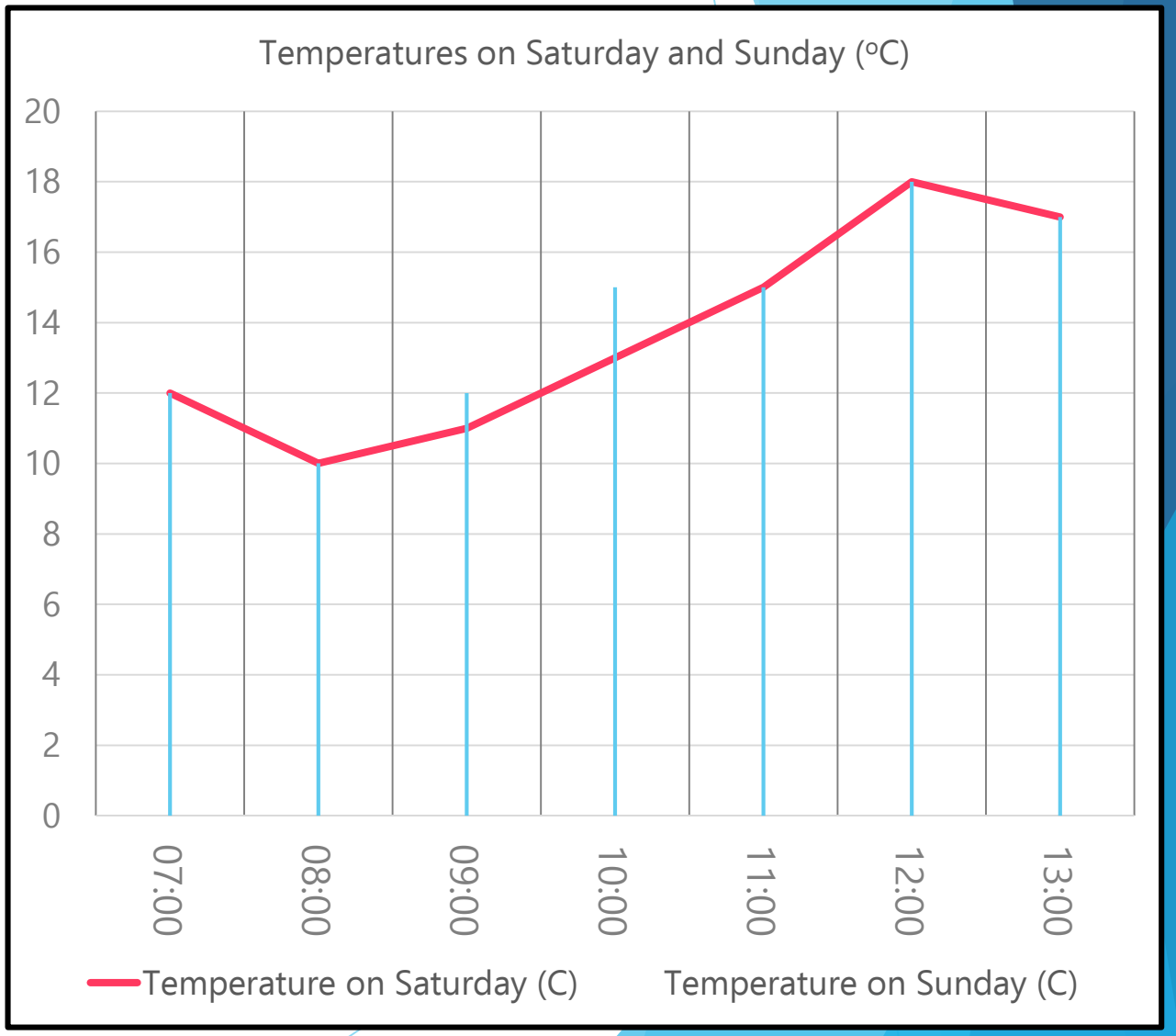

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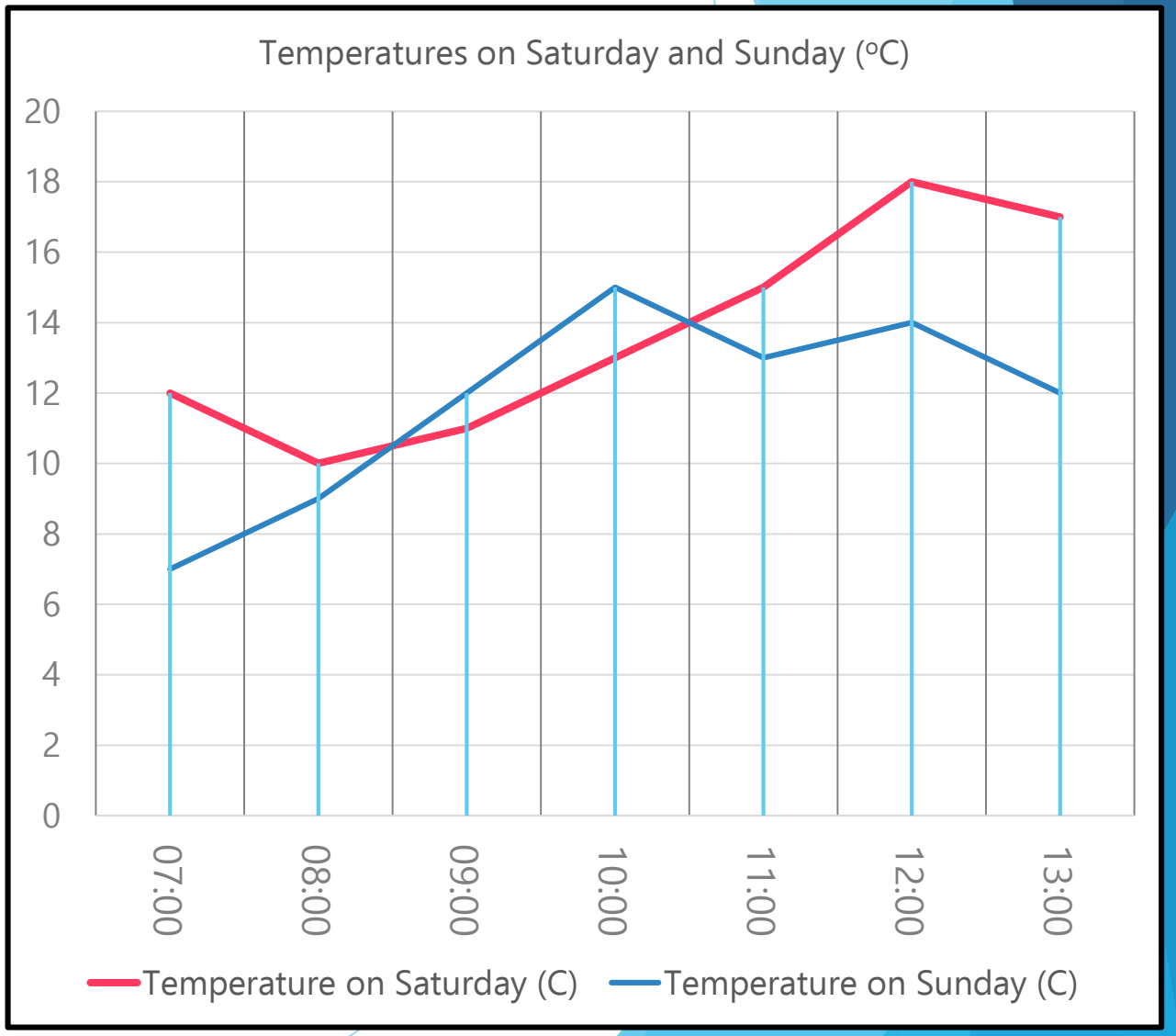

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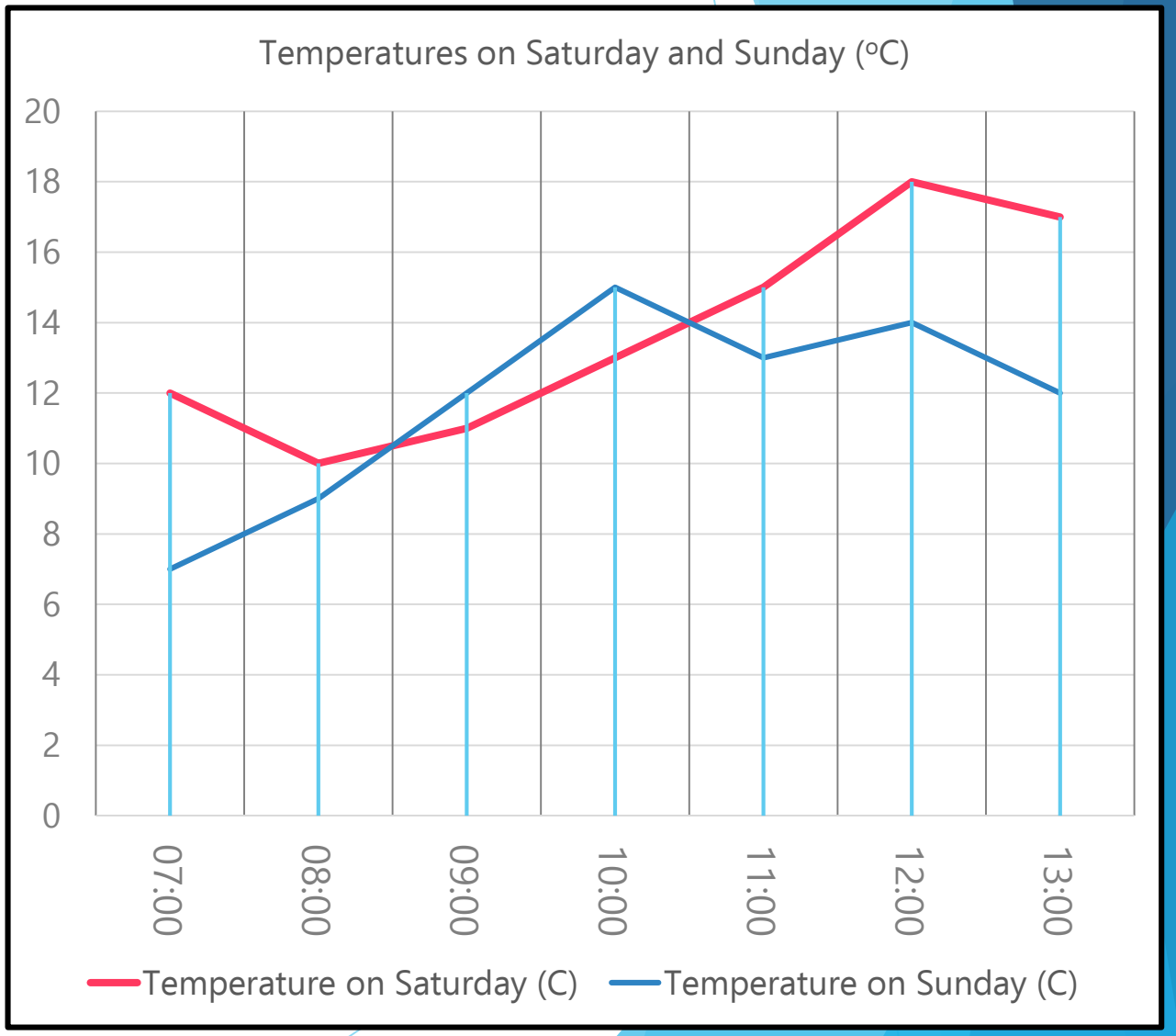
| 08:00 | 10 | 9 |
| 09:00 | 11 | 12 |
| 10:00 | 13 | 15 |
| 11:00 | 15 | 13 |
| 12:00 | 18 | 14 |
| 13:00 | 17 | 12 |

The temperature was **4**°C hotter on Saturday than Sunday at midday.



# To be able to explore line graphs

Activity 4:

The line graph shows estimated fish population volumes in a lake between 1960 and 2020.

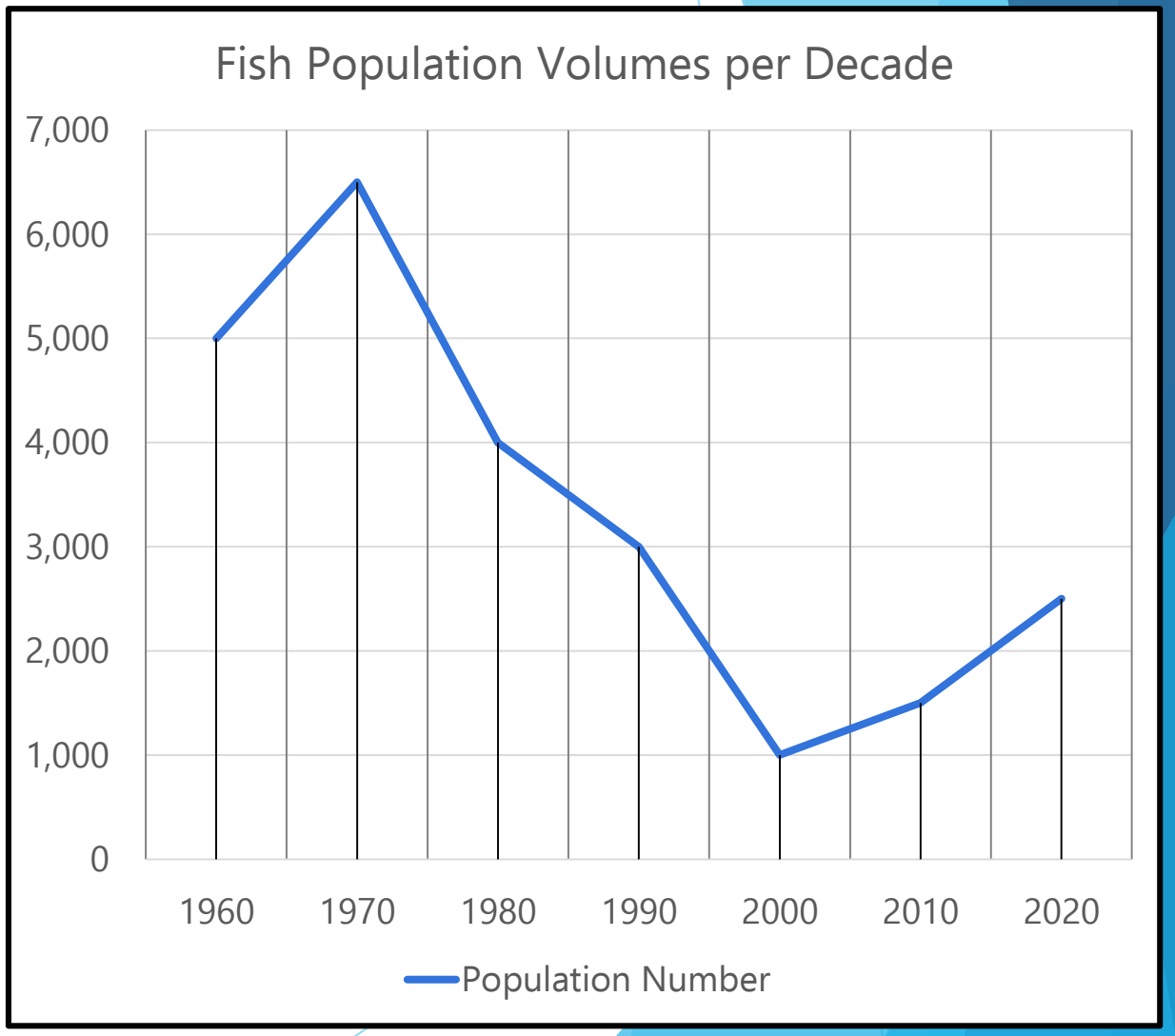
Complete the sentences below.

The fish population was greatest in the year _____.

The highest population number on record is _____ fish.

An estimate for the fish population number in 2010 is _____ fish.

An approximate amount for the fish population in 1985 is _____ fish.



# To be able to explore line graphs

Activity 4:

The line graph shows estimated fish population volumes in a lake between 1960 and 2020.

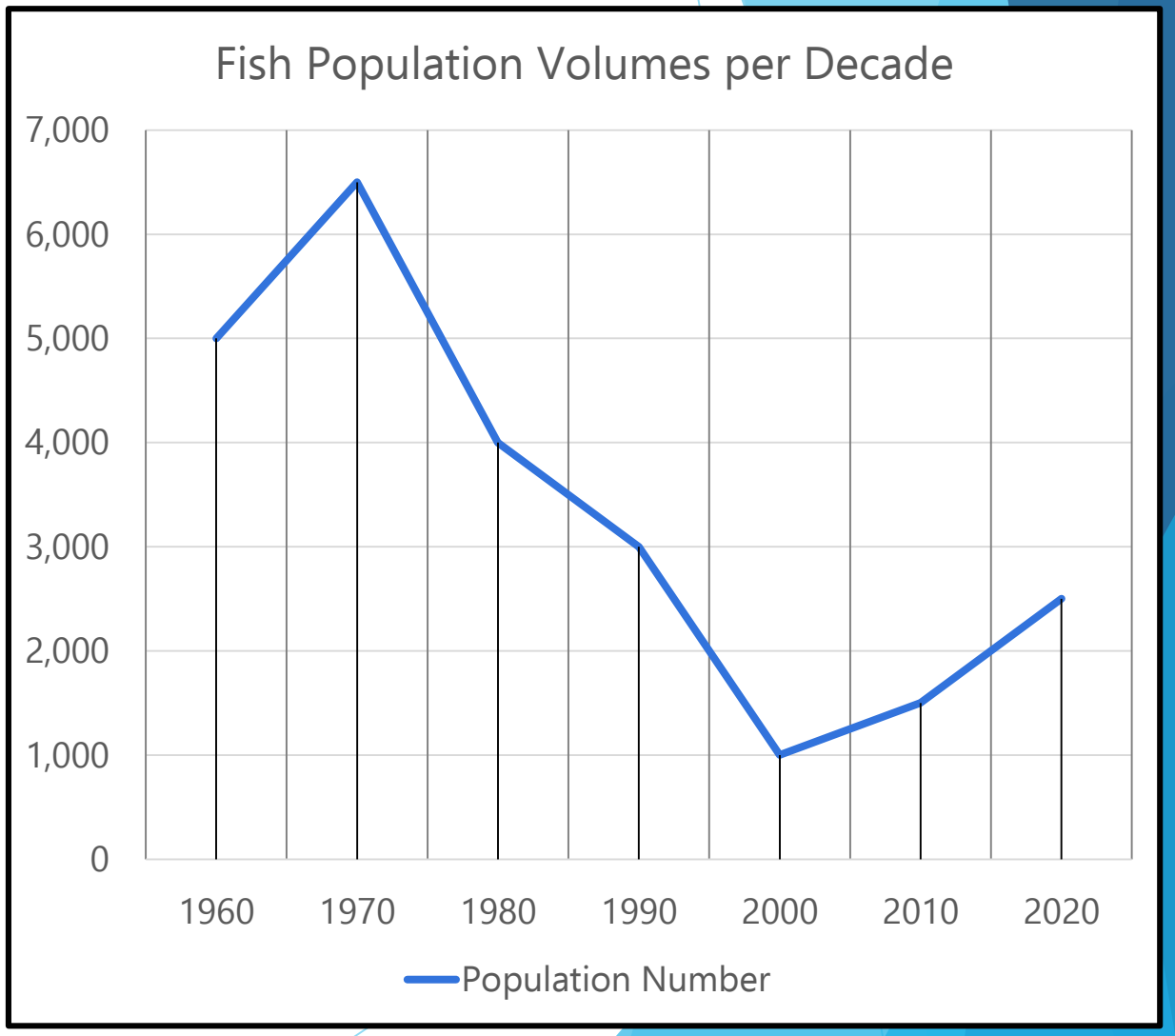
Complete the sentences below.

The fish population was greatest in the year **1970**.

The highest population number on record is **6,500** fish.

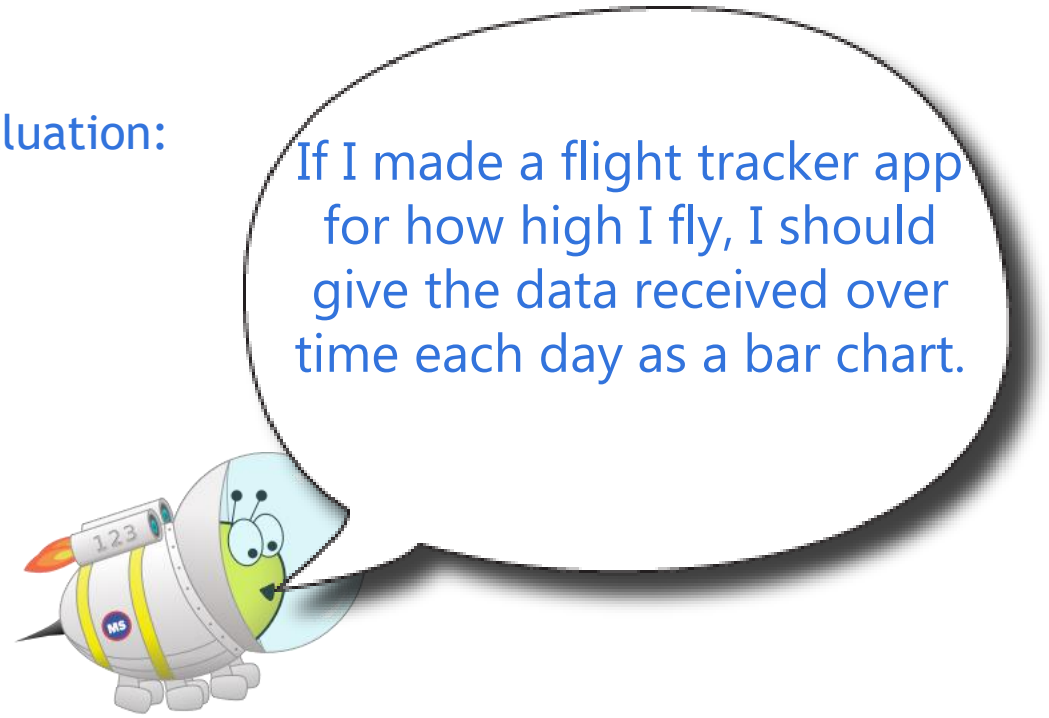
An estimate for the fish population number in 2010 is **1,500** fish.

An approximate amount for the fish population in 1985 is **3,500** fish.



# To be able to explore line graphs

Evaluation:

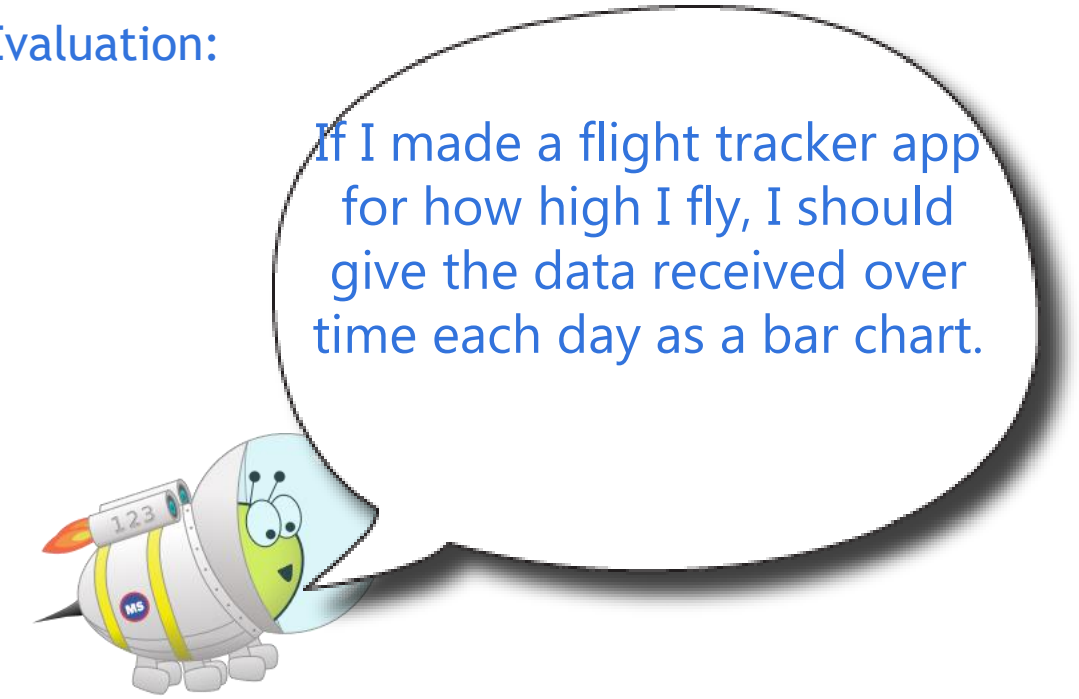



Do you agree?

Explain your answer.

# To be able to explore line graphs

Evaluation:




No, I do not agree. As Astrobee's height above ground will change throughout the day, it is continuous data, so would be best presented as a line graph.