

Year 4 Maths, 9th June 2020

LO: interpret the data shown in line graphs

Number practice

- ▶ A) Use column addition to solve $4286 + 2905$
- ▶ B) Use column subtraction to solve $9647 - 218$
- ▶ C) Use either grid multiplication or expanded multiplication to solve 15×72
- ▶ D) Use short division to solve $86 \div 3$

Number practice answers

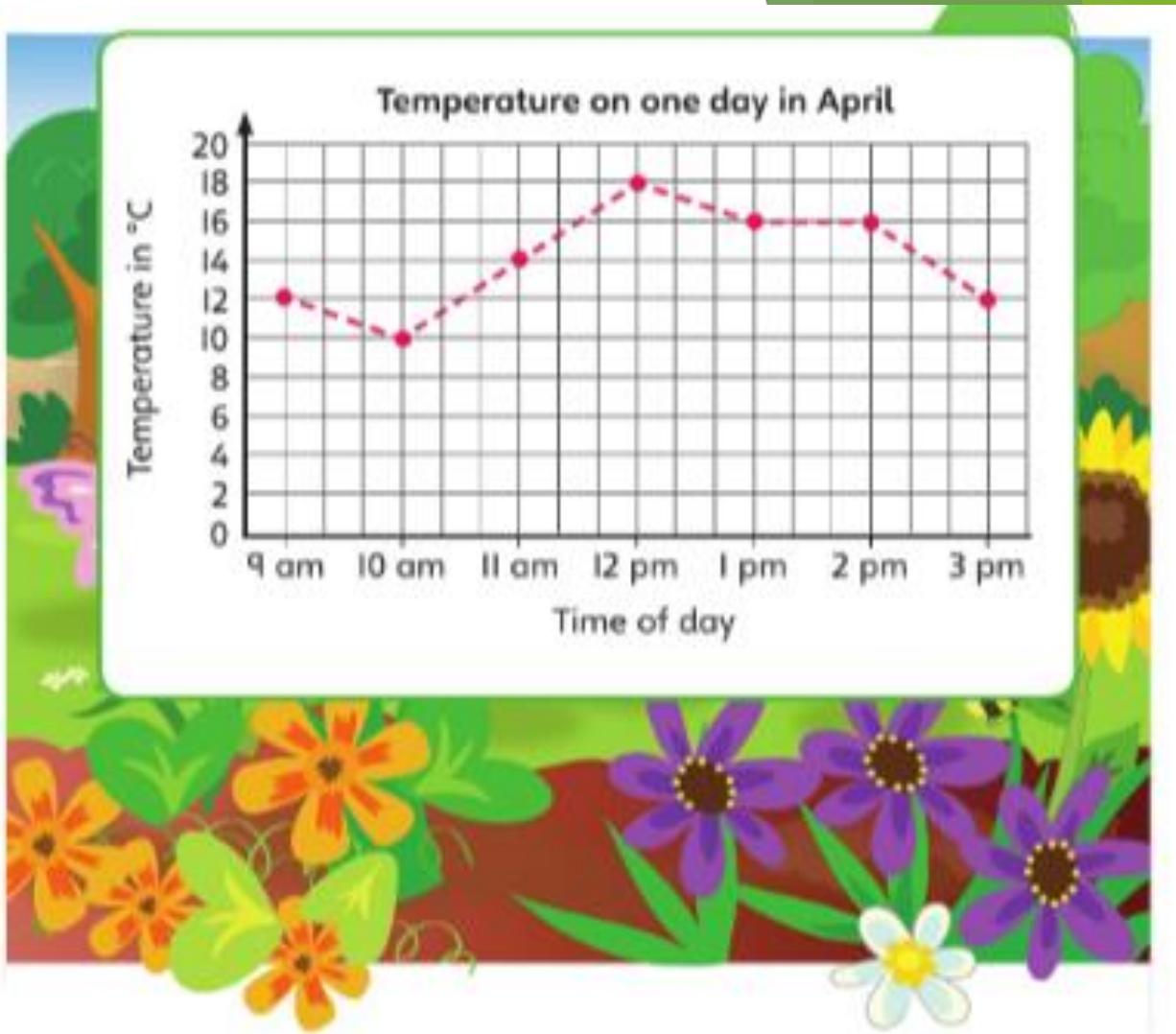
- ▶ A) Use column addition to solve $4286 + 2905$ **7191**
- ▶ B) Use column subtraction to solve $9647 - 218$ **9429**
- ▶ C) Use either grid multiplication or expanded multiplication to solve 15×72
1080
- ▶ D) Use short division to solve $87 \div 3$ **29**

► LINE GRAPHS

- SOME WILL EVEN make up a story to fit the data shown in a line graph (DD2)
- SOME will interpret data from a line graph with two lines (chilli 3)
- MOST will use calculations to answer questions about the data in line graphs (chilli 2)
- ALL will read data from line graphs (chilli 1)

RECALL - line graphs

- Line graphs are used to represent _____ data. This is data that can be measured such as height, weight or temperature.



- a) What is the temperature at 11 am?
- b) How much does the temperature decrease by between 12:30 pm and 3 pm?

RECALL - answers

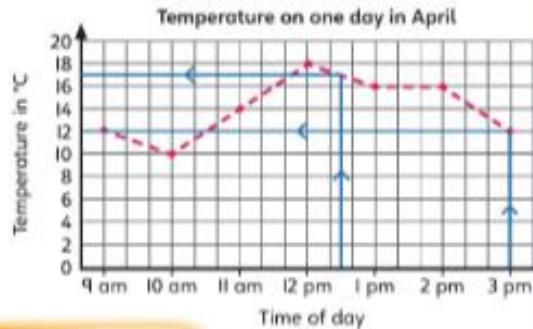
- Line graphs are used to represent **continuous** data. This is data that can be measured, such as height, weight or temperature.

b) The temperature at 12:30 pm is 17 °C.

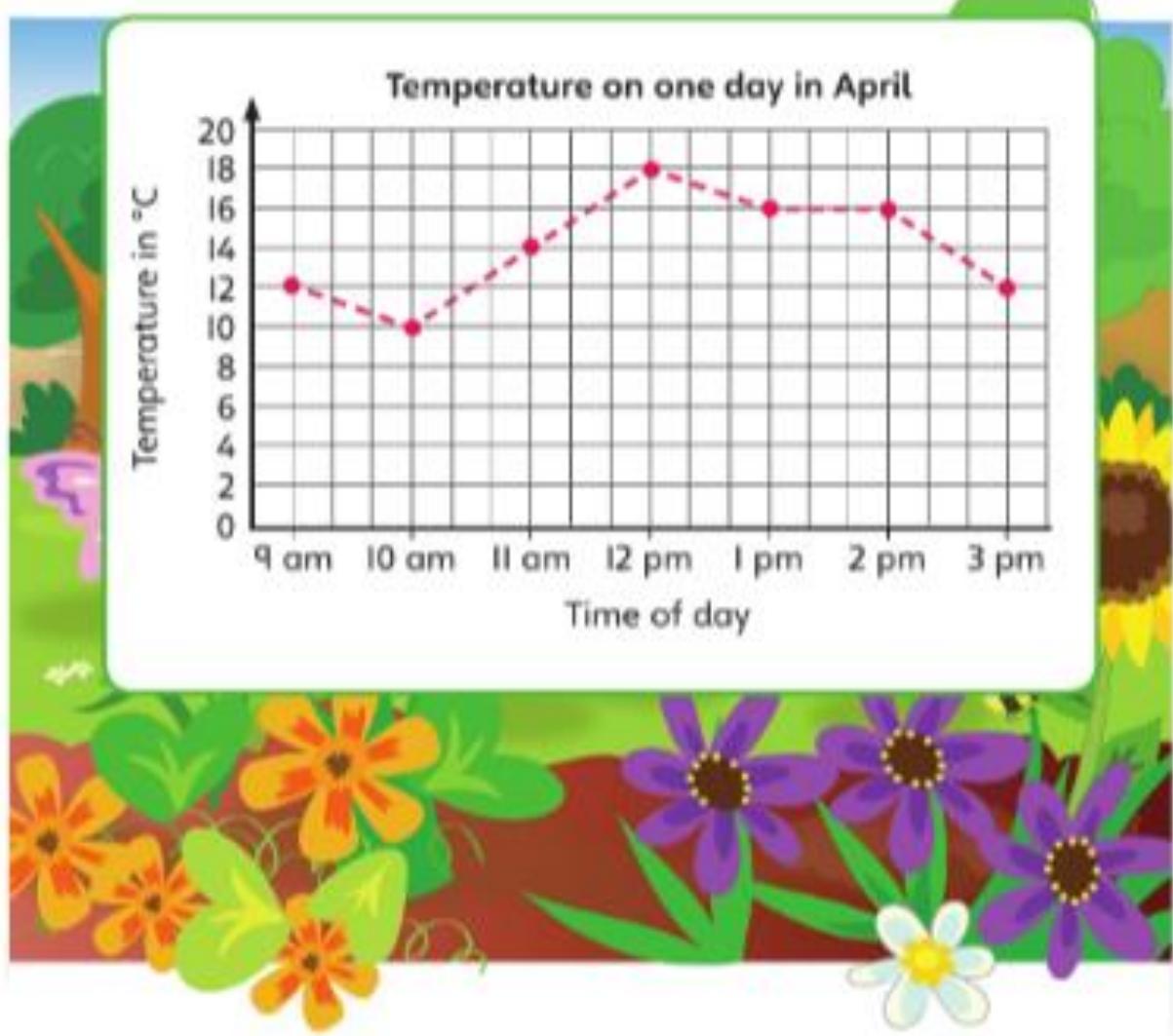
The temperature at 3 pm is 12 °C.

$$17 - 12 = 5$$

The temperature decreases by 5 °C between 12:30 pm and 3 pm.



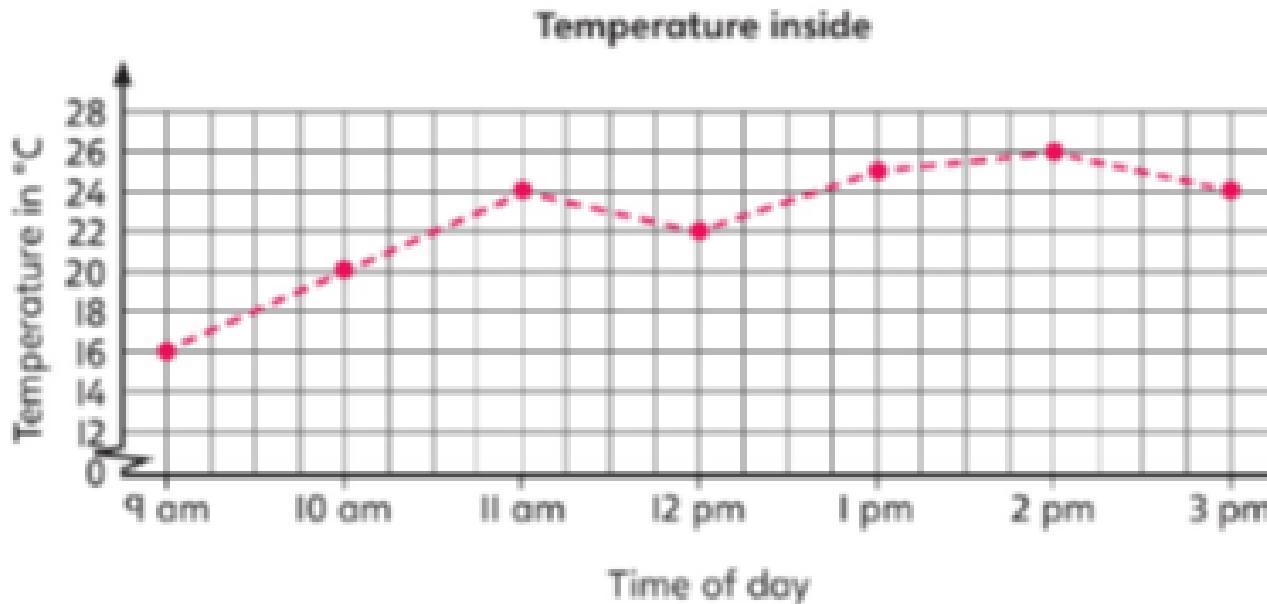
I read off the values from 12:30 pm and 3 pm and found the difference.



- a) What is the temperature at 11 am? **14 degrees C**
- b) How much does the temperature decrease by between 12:30 pm and 3 pm?

INTELLIGENT PRACTICE

This line graph shows the temperature inside Emily's house on Tuesday.



ONE CHILLI

- a) What was the temperature at 11 am?
- b) What was the temperature at 1 pm?
- c) What was the temperature at 2:30 pm?
- d) At what time was it the warmest inside Emily's house?
- e) At what time was the temperature 21 °C?

TWO CHILLIES

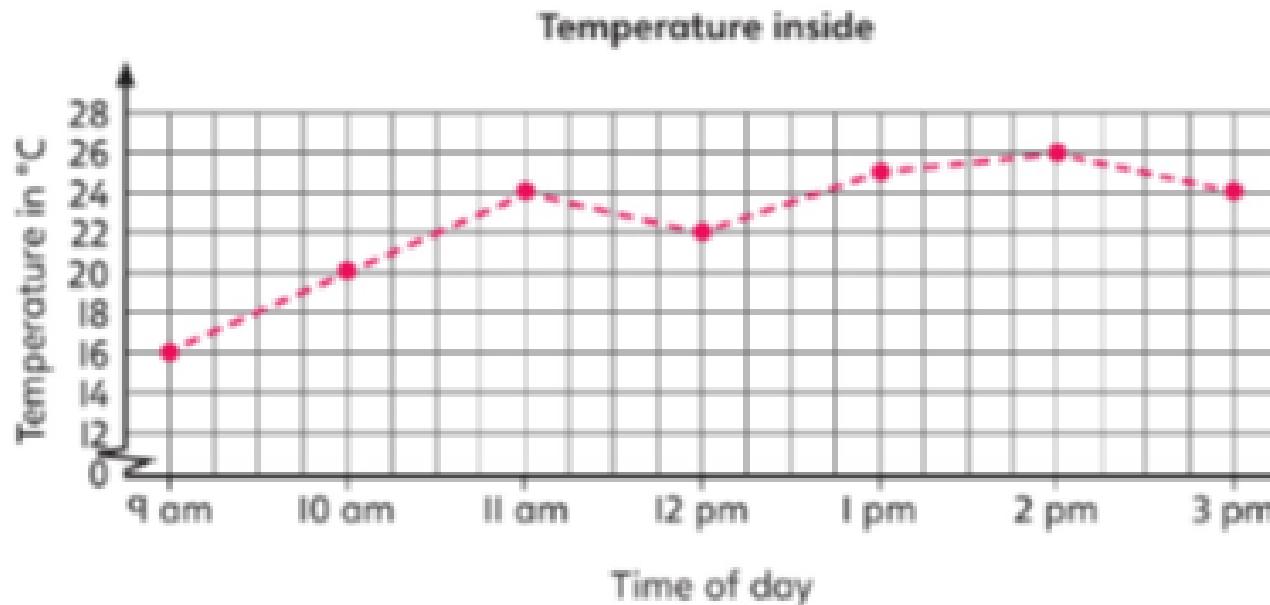
For how long is the temperature above 24 °C in Emily's house?

I am going to start by going across from the temperature on the vertical axis.



INTELLIGENT PRACTICE answers

This line graph shows the temperature inside Emily's house on Tuesday.



ONE CHILLI

- a) What was the temperature at 11 am?
24 degrees C
- b) What was the temperature at 1 pm?
25 degrees C
- c) What was the temperature at 2:30 pm?
25 degrees C
- d) At what time was it the warmest inside Emily's house?
2pm
- e) At what time was the temperature 21 °C?
10:15 am

TWO CHILLIES

For how long is the temperature above 24 °C in Emily's house?

I am going to start by going across from the temperature on the vertical axis.



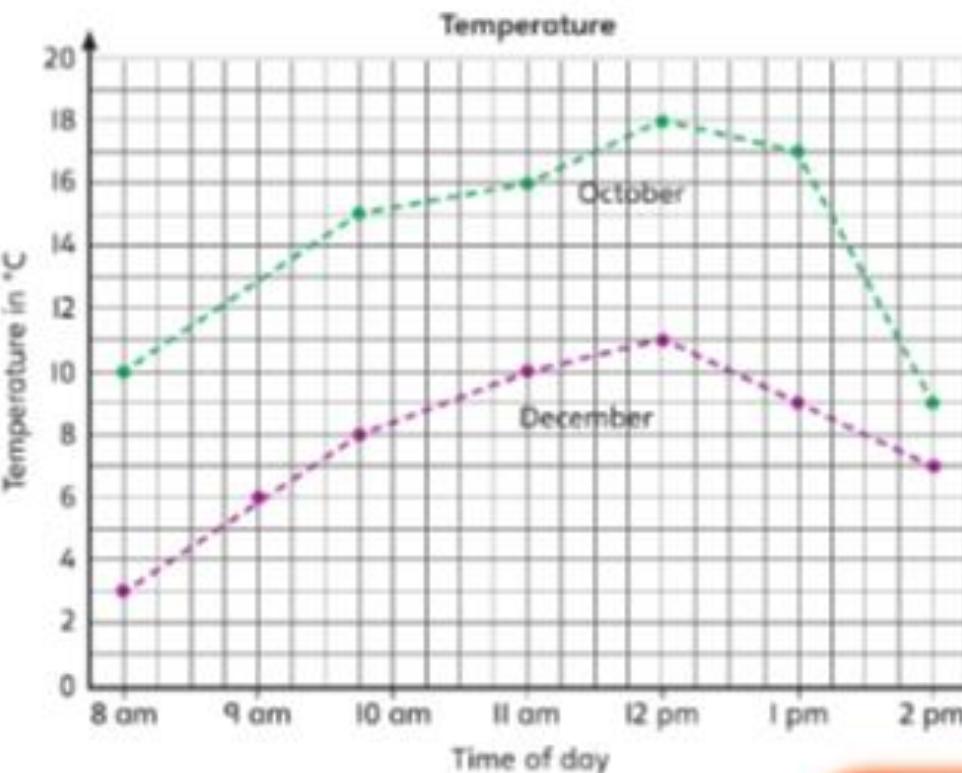
2 hours and 15 minutes



The temperature in a small town was measured on the first day of October and the first of December.

The results are shown on the line graph below.

CHILLI 3



- What was the temperature at midday on 1 December?
- What is the difference in the temperature at 2 pm on 1 December and 2 pm on 1 October?
- What is the same and what is different about the temperature on 1 October and 1 December?

Line graphs can show more than one set of data. Each set of data has its own line.

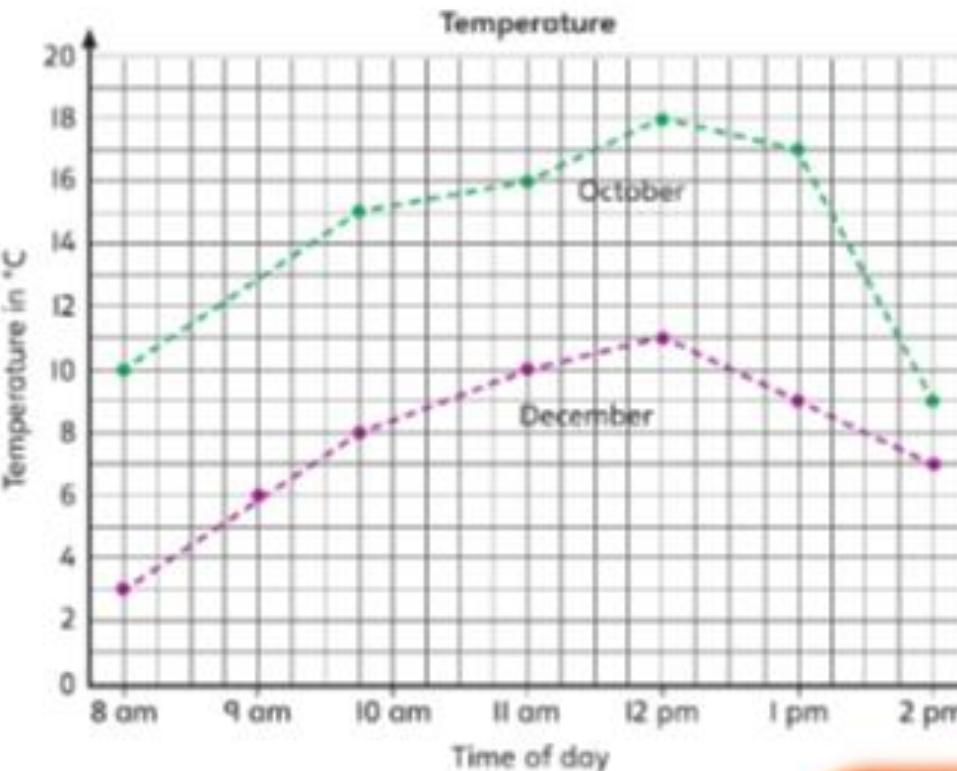


CHILLI 3 answers

The temperature in a small town was measured on the first day of October and the first of December.



The results are shown on the line graph below.



- What was the temperature at midday on 1 December?
- What is the difference in the temperature at 2 pm on 1 December and 2 pm on 1 October?
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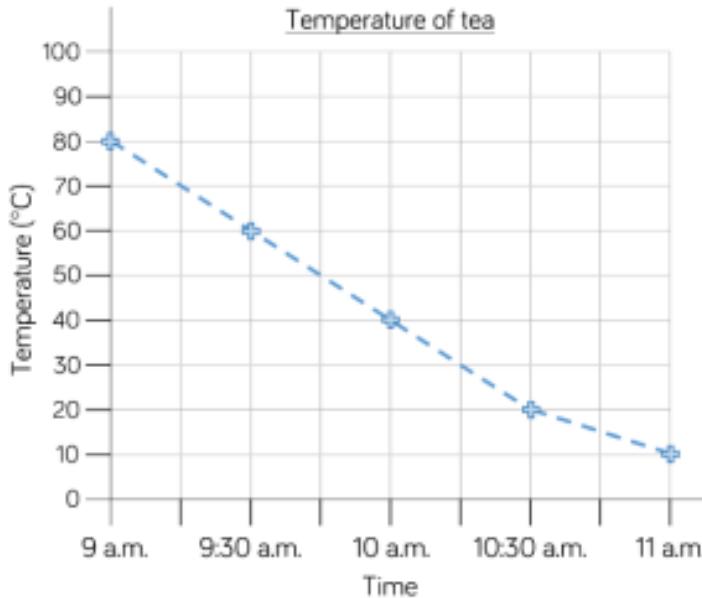
Line graphs can show more than one set of data. Each set of data has its own line.



- A) 11 degrees C
- B) 2 degrees C
- C) The same: on both days, the temperature rises until 12pm then begins to fall again.
- D) Different: in October, the temperature is lowest at 2pm, but in December the temperature is lowest at 8am. The temperatures at each hour are different on the different days.

DIVE DEEPER 1

Eva measured the temperature of a cup of tea every 30 minutes for 2 hours. The graph shows Eva's results.



Eva says,

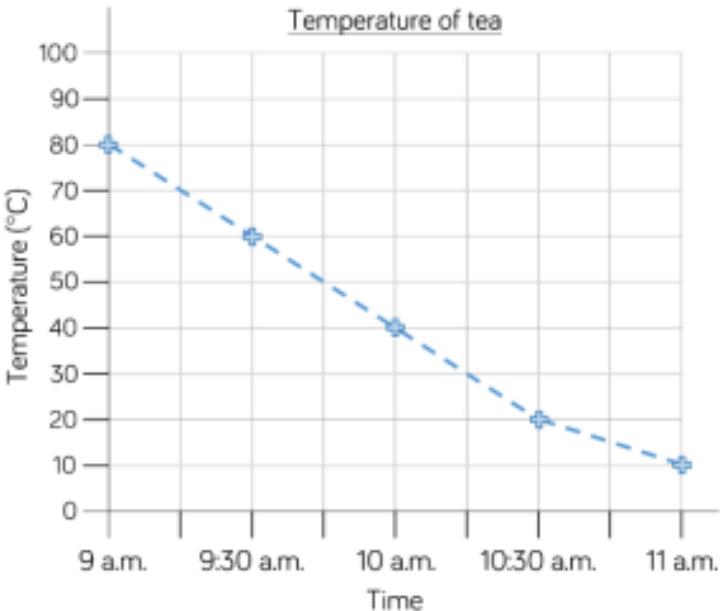


In the first 45 minutes the temperature of the tea had dropped by 20 degrees.

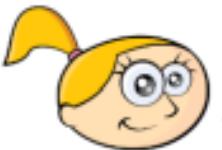
Do you agree with Eva?
Explain why.

DIVE DEEPER 1 answer

Eva measured the temperature of a cup of tea every 30 minutes for 2 hours. The graph shows Eva's results.



Eva says,



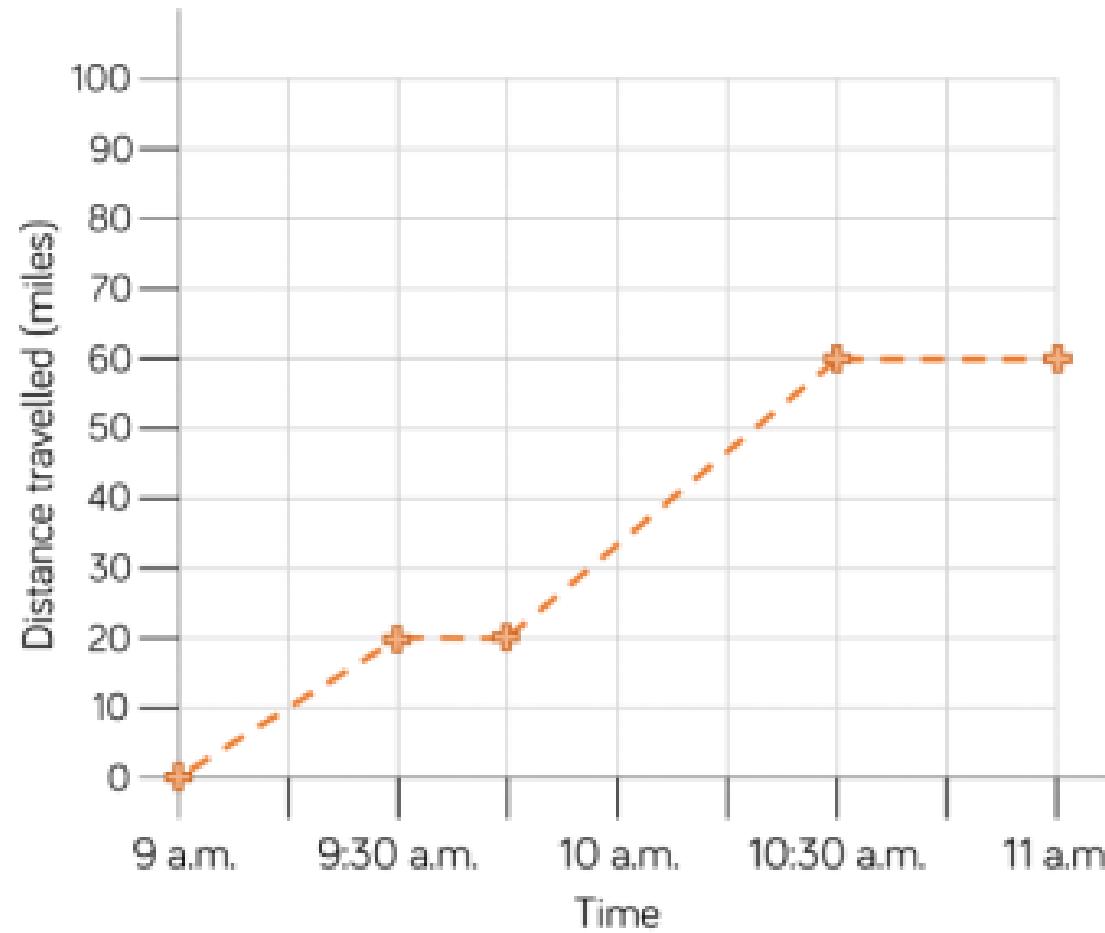
In the first 45 minutes the temperature of the tea had dropped by 20 degrees.

Do you agree with Eva?
Explain why.

I do not agree with Eva. At 9 a.m. the temperature was 80 degrees and at 9:45 a.m. the temperature was 50 degrees, so it had dropped 30 degrees not 20 degrees.

DIVE DEEPER 2

Write a story to match the graph.

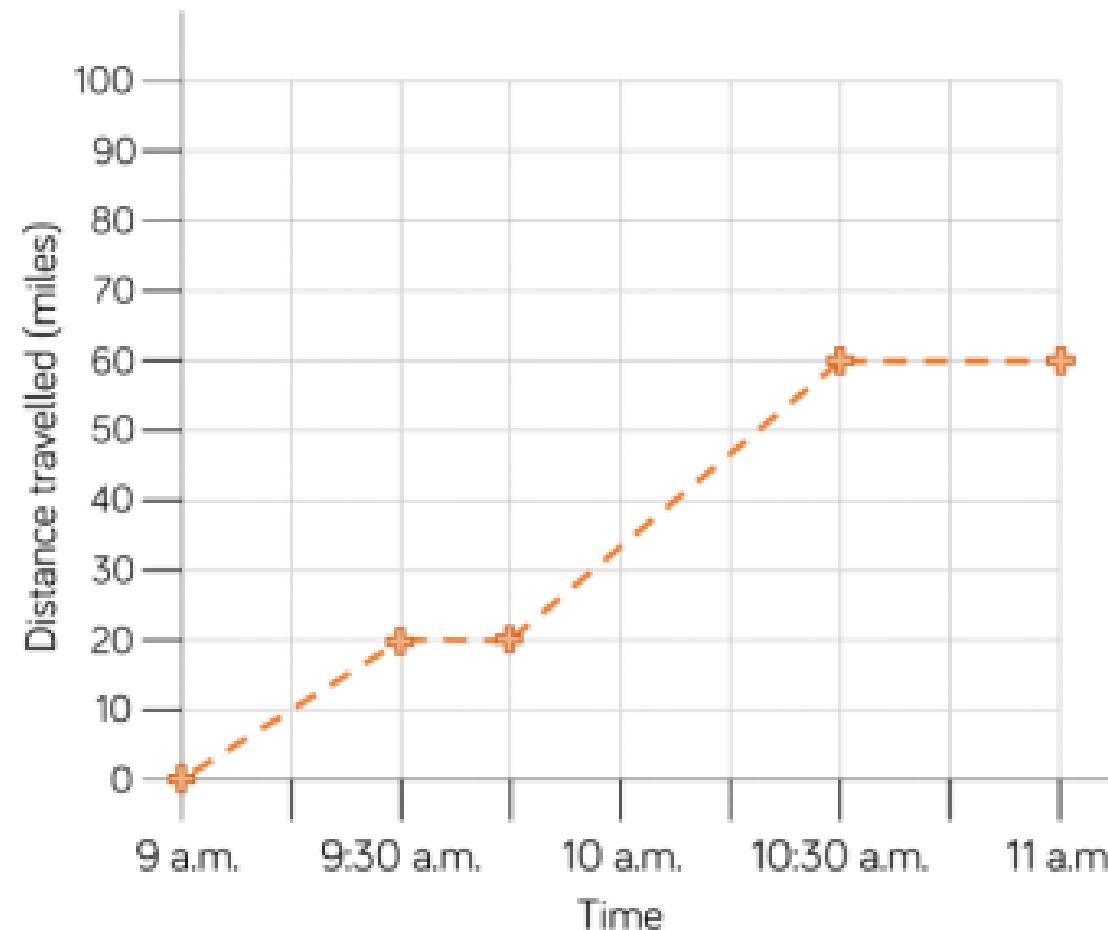


DIVE DEEPER 2

example answer

Mo drove 20 miles in his lorry. At half past 9 he had a 15 minute rest then drove for another 30 miles until he reached his destination at 10:30 a.m.

Write a story to match the graph.



- ▶ Self assessment - how did you do?
- ▶ SOME WILL EVEN make up a story to fit the data shown in a line graph (DD2)
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