1) Here are two graphs which show the outside temperatures during May:
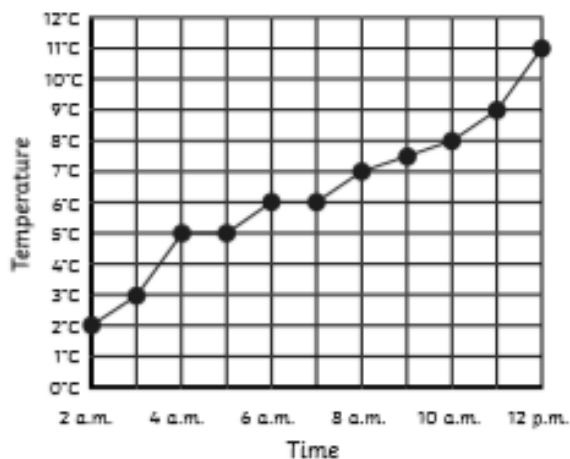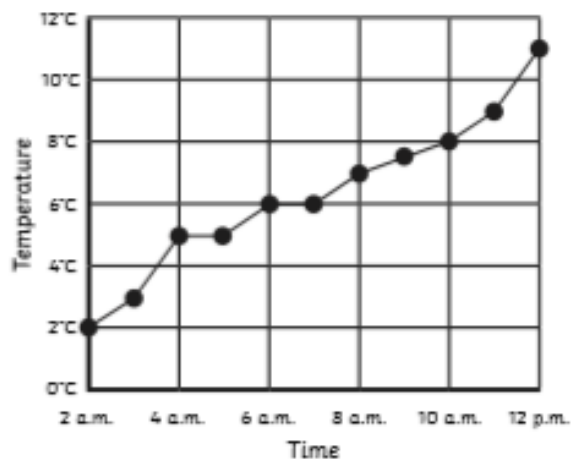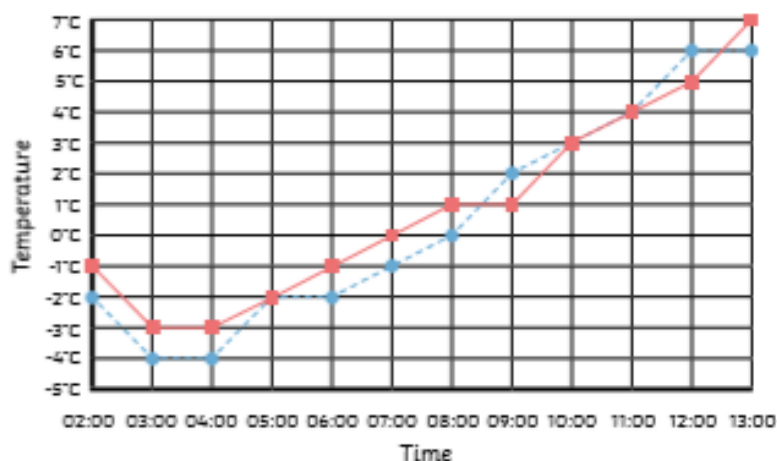

What is the same and what is different about the two graphs?

Same: _____

_____

_____

_____

Different: _____

_____

_____

_____

2) Here are the temperatures of a town taken from 02:00 to 13:00 on two days:

■——■ Monday   ●--●--● Tuesday

a) Which day recorded the lowest temperature?
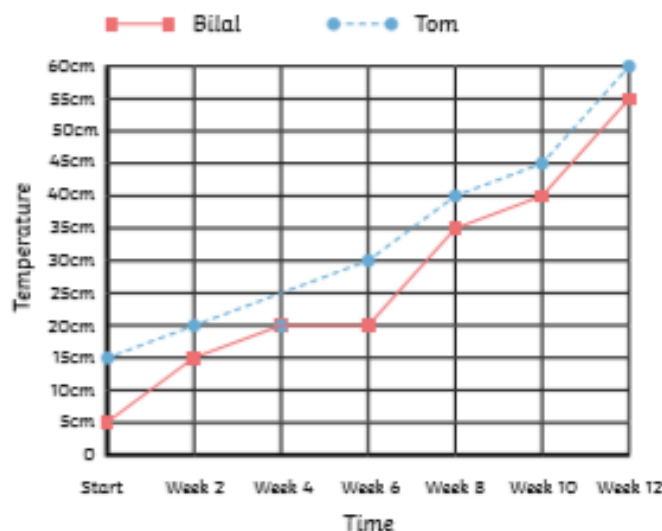
_____

b) Which day recorded the highest temperature?

_____

c) On Monday, between which times did the temperature remain the same?

_____

d) How many times on Tuesday was there an increase in temperature of more than 1°C? _____

e) How many degrees did the temperature on Monday rise from 05:00 to 10:00? _____

f) On Tuesday, which was the greater temperature rise: from 05:00 to 08:00 or from 08:00 to 11:00?

_____

Legend: ■— Bilal ●---● Tom

Y-axis: Temperature — 60cm, 55cm, 50cm, 45cm, 40cm, 35cm, 30cm, 25cm, 20cm, 15cm, 10cm, 5cm, 0

X-axis: Time — Start, Week 2, Week 4, Week 6, Week 8, Week 10, Week 12

1) Bilal and Tom have been growing sunflower plants over 12 weeks. This line graph shows the growth of their plants.

   Here are some statements about the graph. Write whether they are correct or incorrect. If they are incorrect, explain why.

   a) Tom's plant was taller than Bilal's when they were planted.

   _____

   _____

   b) Bilal's plant grew 20cm between weeks 10 and 12.

   _____

   _____

   c) Tom's plant grew 60cm from when it was planted.

   _____

   d) The greatest growth of Tom's plant was between weeks 10 and 12.

   _____

   e) The growth of Bilal's plant from the start to week 6 was greater than from week 6 to week 12.

   _____

   f) Tom's plant was approximately 25cm tall at week 5.

   _____

   g) By week 6, the amount each plant had grown was the same.

   _____

   h) From week 6 to week 12, Bilal's plant grew 10cm more than Tom's plant.

   _____

2) Write 2 statements of your own about the line graph, for your partner to complete. Make one statement that is correct and one that is incorrect.

   _____

   _____

1) Here is a line graph to show the journey the Lewis family made when they were visiting their grandmother.
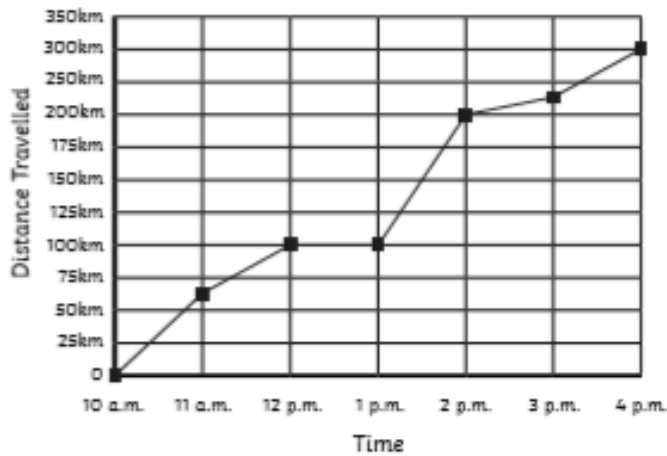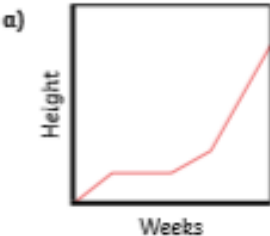

Between which times do you think the following happened? Explain why you think this.

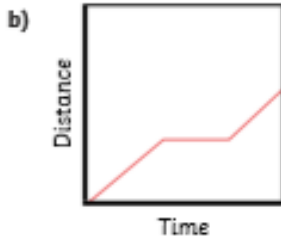a) The family stopped for lunch.

_____

_____

b) The family travelled on the motorway.

_____

_____

c) The family were caught in slow moving traffic.

_____

_____

2) Here are three line graphs. Write a story for each graph.

a) _____

_____

_____

_____

_____

b) _____

_____

_____

_____

_____

c) _____

_____

_____

_____

_____

ANSWERS

1)

Same:	Different:
• The two graphs show the same data.	• The second graph has an extra increment on the x-axis.
• The labels on the x-axis and the y-axis on each graph are the same.	• The second graph has an extra increment on the y-axis.
• The increment labels on x-axis of both graphs are the same.	• On the first graph, the y-axis is divided into multiples of 2°C.
• The line is the same.	

2) a) Tuesday

b) Monday

c) 03:00 – 04:00 and 08:00 – 9:00

d) 3 times

e) 5°C

f) 08:00 to 11:00

1) a) Correct

b) Incorrect – at week 10, Bilal's plant was 40cm, by week 12 it was 55cm. The growth was 15cm.

c) Incorrect – the plant started at 15cm when it was planted and grew to 60cm. This was a growth of 45cm.

d) Correct

e) Incorrect – Bilal's plant grew 15cm from the start to week 6 and 35cm from week 6 to week 12.

f) Correct – as the rate of growth was not measured accurately at week 5 so Tom's plant measured somewhere between 25cm and 30cm tall. Children may suggest that the graph shows that Tom's plant was slightly taller than 25cm but this is based on an estimate of average growth between weeks 4 and 6.

g) Correct

h) Incorrect – Bilal's plant grew 35cm from weeks 6 to 12 and Tom's plant grew 30cm. Bilal's plant grew 5cm more than Tom's.

2) Multiple answers possible, for example:

True – Tom's plant was the tallest in week 12.

False – Bilal's plant grew the more between weeks 2 and 4 than between weeks 10 and 12.

1) a) Between 12 p.m. and 1 p.m. the family stopped for lunch. There was no distance covered during this time meaning the family had stopped.

   b) Between 1 p.m. and 2 p.m. the family travelled on a motorway. This is the time that the most distance was covered in an hour, indicating that they were travelling faster which they can do on a motorway.

   c) Between 2 p.m. and 3 p.m. the family were caught in slow moving traffic. The family only travelled about 25km during this time, suggesting they were moving slowly.

2)

a) Multiple answers possible, such as:	b) Multiple answers possible, such as:	c) Multiple answers possible, such as:
The graph shows the growth in height of a puppy. For the first few weeks, the puppy grew steadily. Then, there were a few weeks where the puppy's height remained the same. The last few weeks, the puppy had a growth spurt.	The graph shows the journey from school to the seaside. When the journey started, they travelled at a constant speed and covered more than half of the distance. They then stopped for lunch for an hour. After that, they completed the last part of the journey at a constant speed.	Two friends set off from school to their own homes, one on a bicycle, the other walking. The friend who travelled by bicycle lived further away from school. They both stopped at a shop for some time before completing their journey home.