

Lesson 1

L.O: I am learning to read and interpret line graphs.



Starter

Line graphs

A line graph is often used to show a **trend over a number of days, hours, months etc.**

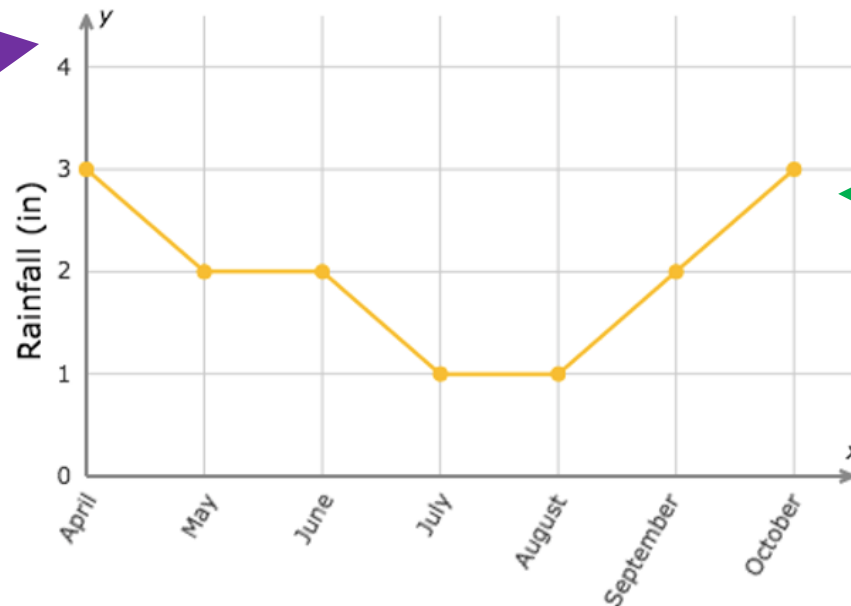
It is plotted as a series of points, which are then joined with straight lines. The ends of the line graph do not have to join to the axes.

Could you think of some examples of when we might use a line graph?

Line Graphs

Before scheduling a family vacation, the Vance family looked at the rainfall in Seattle each month.

Average monthly rainfall in Seattle



Y axis shows us the amount or total for each time frame (what is measured).

The title tells us what the graph is showing us.

The 'line' shows us the data.

X axis shows us the time/day/week/month/year



Using line graphs

Which of the following could you show on a line graph?

- A. Rainfall in two cities over a period of time.
- B. Your classmates' favourite sports.
- C. How long it takes 2 children to run the same distance.

Using line graphs

Which of the following could you show on a line graph?

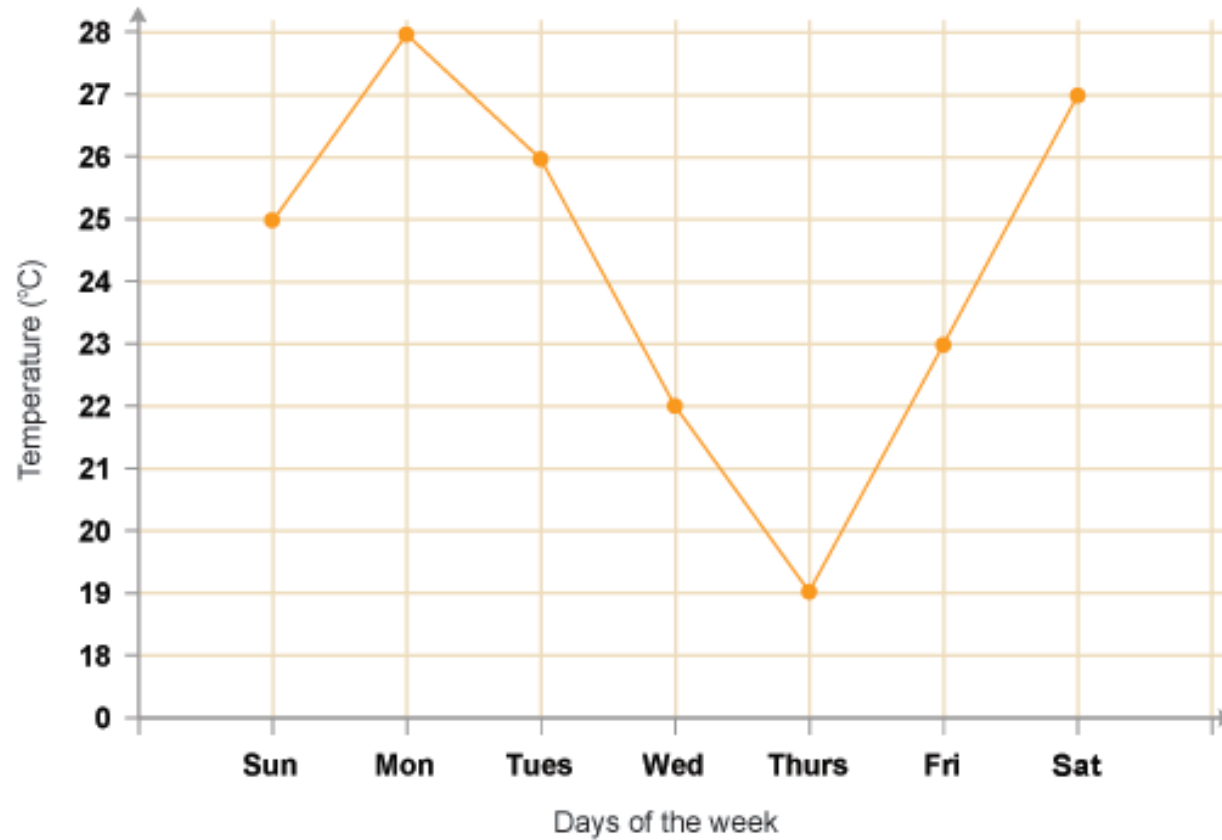
A. Rainfall in two cities over a period of time.

B. Your classmates' favourite sports.

C. How long it takes 2 children to run the same distance.



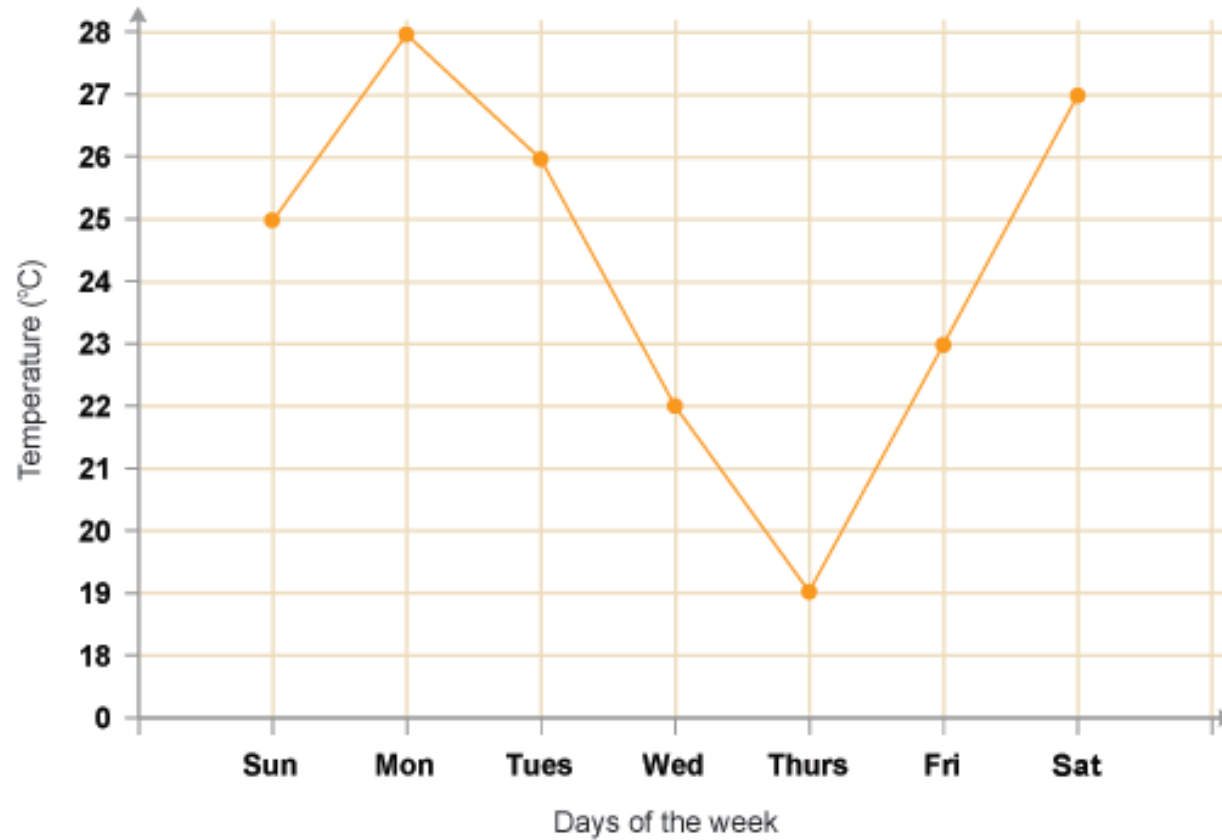
Types of questions



On which day is the temperature 19°C ?

What was the temperature on Monday?

Types of questions



On which day is the temperature 19°C?

Thursday

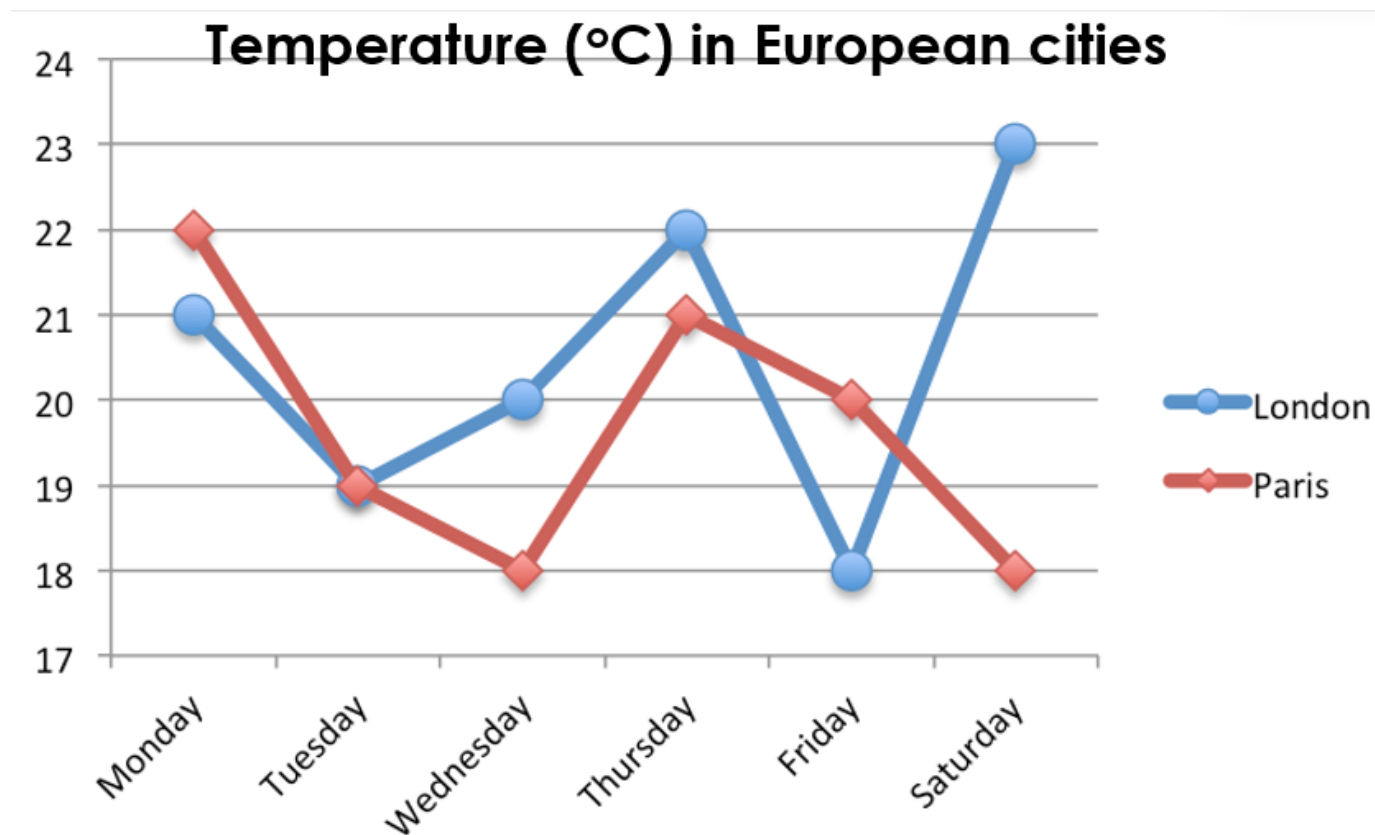
What was the temperature on Monday?

28°C



Line Graphs

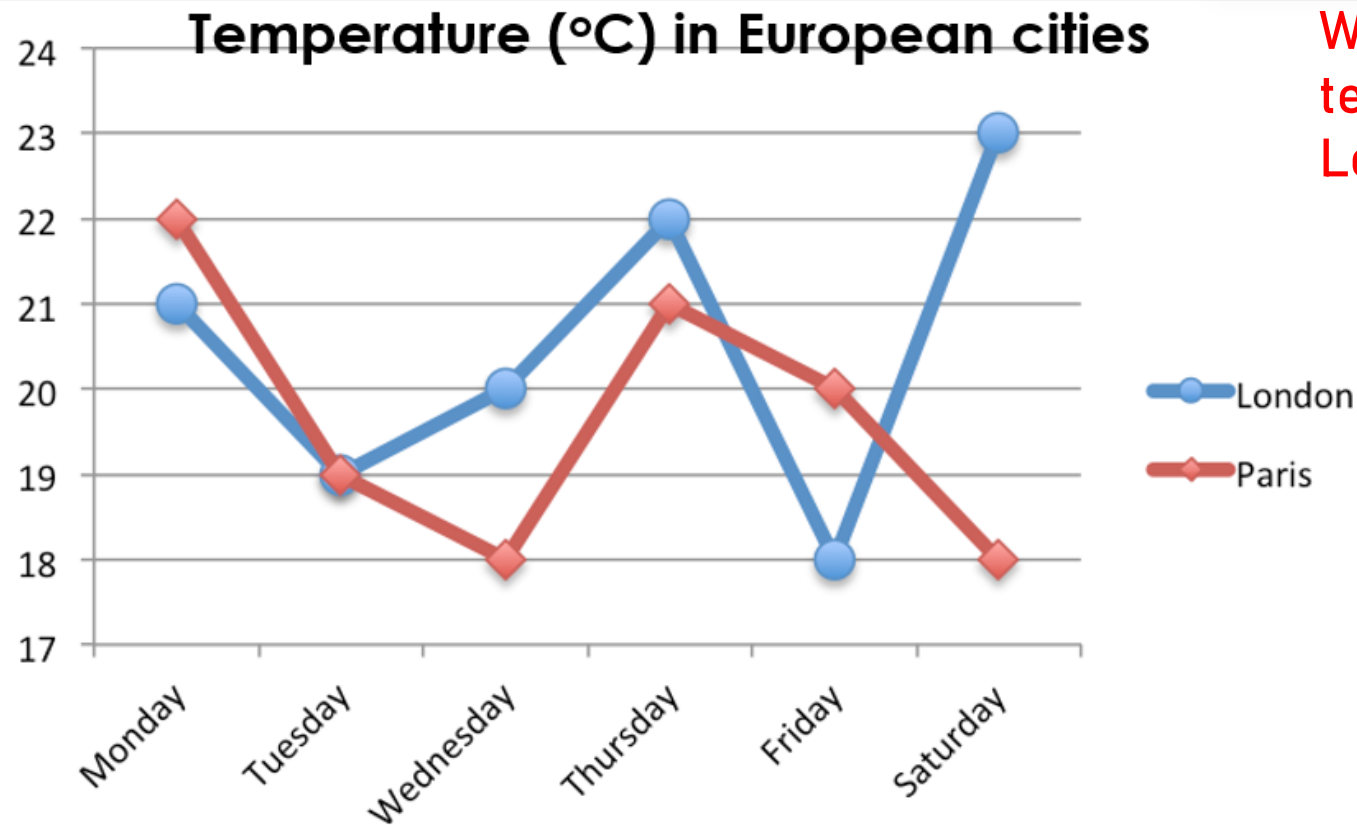
What is the temperature in London on Wednesday?



Line Graphs

What is the temperature in London on Wednesday?

London is the blue line, so on Wednesday the temperature in London is 20°C.



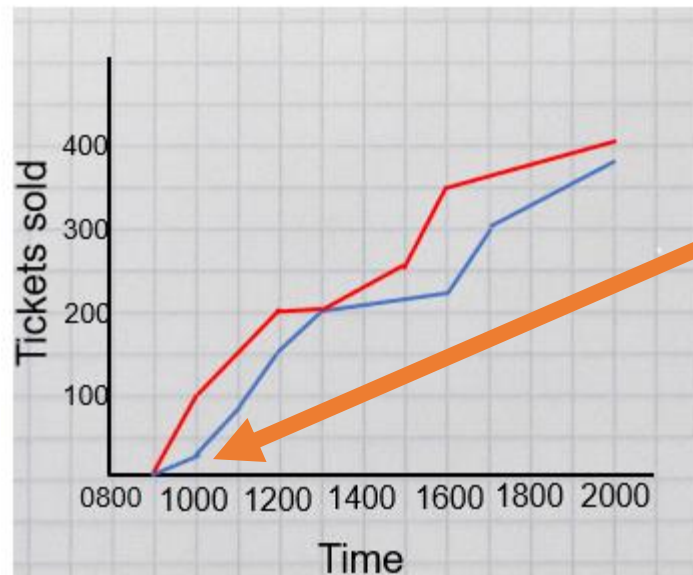


Line Graphs

This line graph shows the sale of tickets for two films at the same cinema on the same day.

At what time did people start to buy tickets for both films?

— Freezing 2
— The Lion Prince



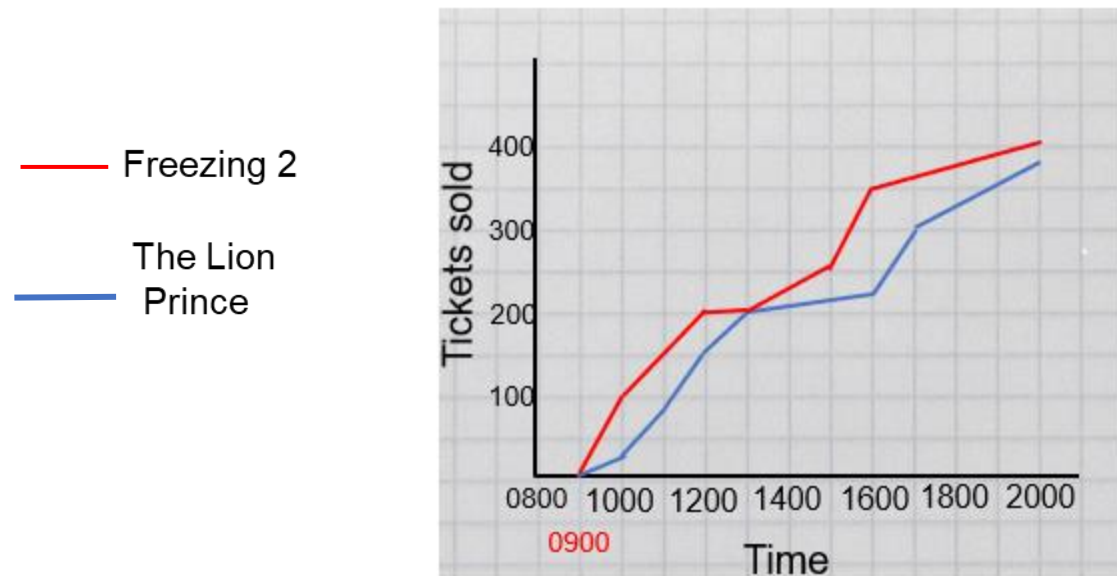
Look carefully!

Line Graphs

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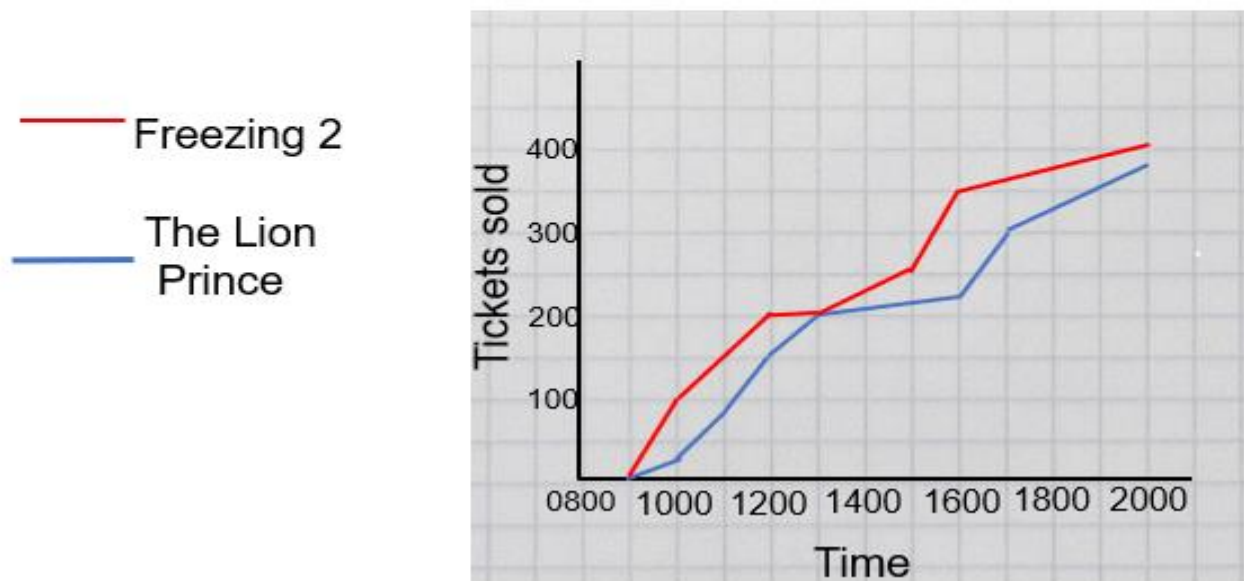
People started to buy tickets for both films from 9 o'clock in the morning.





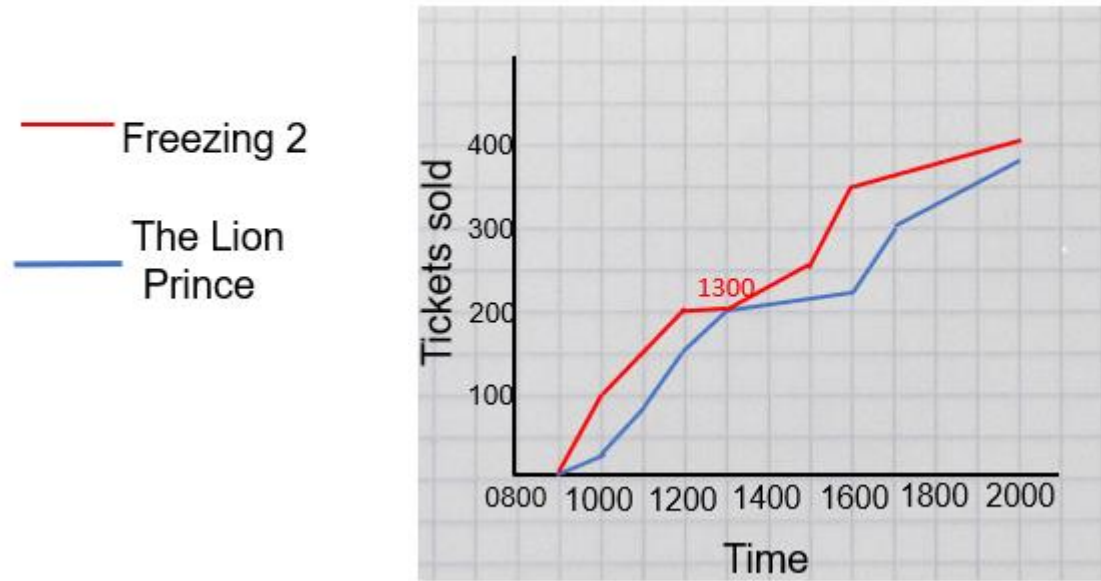
Line Graphs

At what time did both films have the same number of tickets sold? How do you know?



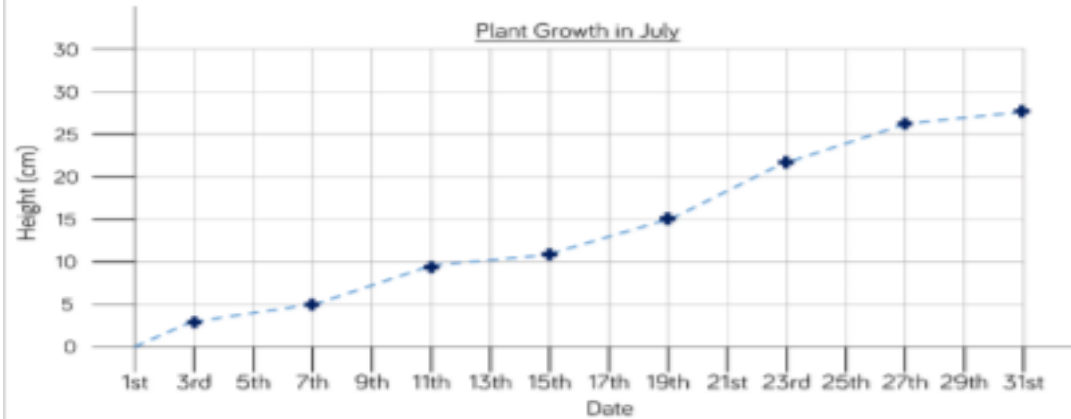
Line Graphs

At what time did both films have the same number of tickets sold? How do you know?



Both films had sold 200 tickets at 1300 – or 1 p.m.
We know because it is the point where the two lines meet/cross.

Eva has created a graph to track the growth of a plant in her house.



Eva recorded the following facts about the graph.

- a) On the 9th of July the plant was about 9 cm tall.
- b) Between the 11th and 19th July the plant grew about 5 cm.
- c) At the end of the month the plant was twice as tall as it had been on the 13th.

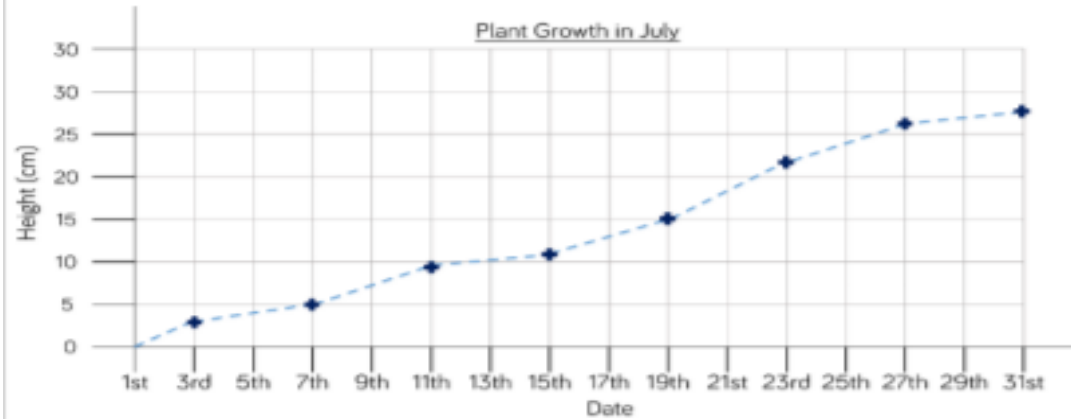


Can you spot and correct Eva's mistakes?



Reasoning

Eva has created a graph to track the growth of a plant in her house.



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Can you spot and correct Eva's mistakes?



Reasoning Answers

a) On the 9th July a more accurate measurement would be 7.5 cm.

b) Correct.

c) On the 31st the plant was approximately 28 cm tall, but on the 13th it was only 10 cm which is not half of 28 cm. The plant was closer to 14 cm on the 17th July.

Choose 1 of the 3 line graphs below.
Think about a story and 3 questions for what it could represent.

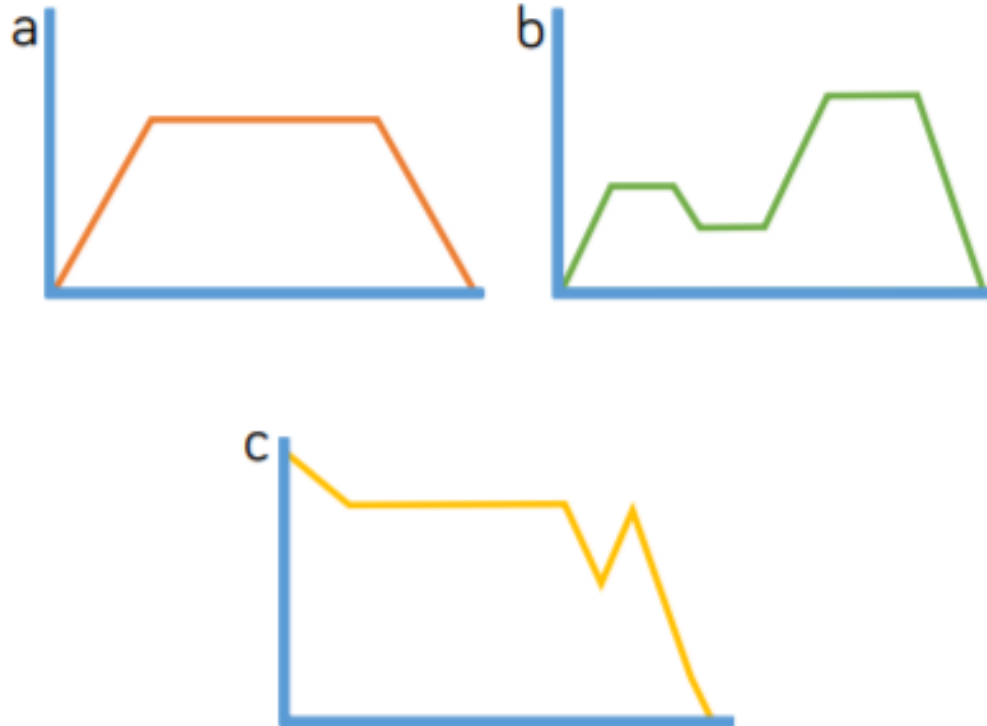


Problem Solving



Choose 1 of the 3 line graphs below.
Think about a story and 3 questions for what it could represent.

Problem Solving Answers



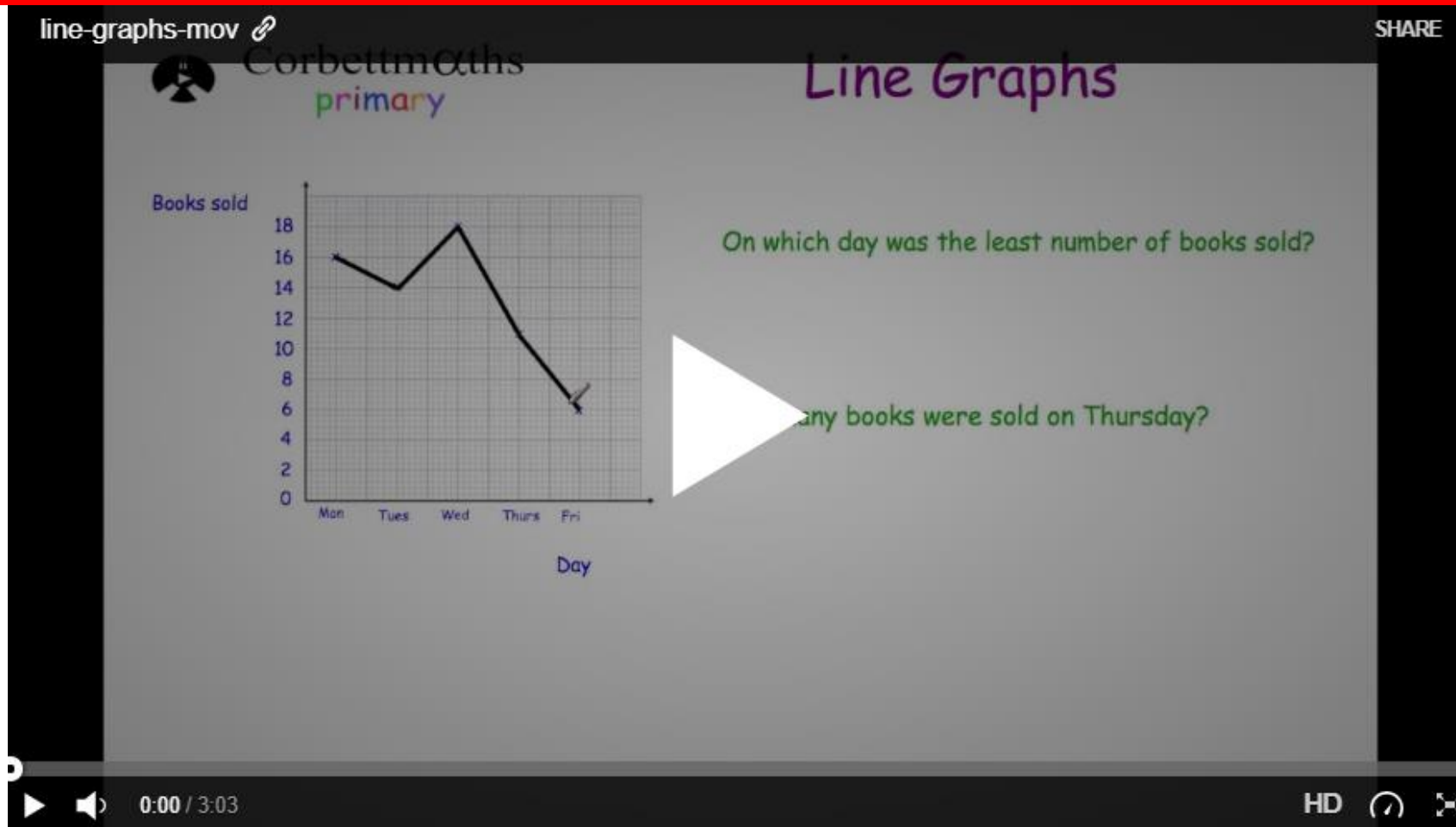
Possible context
for each story:

a) A car speeding up, travelling at a constant speed, then slowing down.

b) The height above sea level a person is at during a walk.

c) Temperature in an oven when you are cooking something.

A helpful revision video



<https://corbettmathsprimary.com/2018/07/19/line-graphs-video/>

Once you have finished turn
this assignment in on Google
Classroom.



Task

All	All of you must complete the fluency section.
Most	Most of you will compete the fluency and reasoning sections.
Some	Some of you will complete the fluency, reasoning, and problem-solving sections.

Try your best – it is all we can ask for! 😊

This video may help if you are stuck at any
point:

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Week 4_Maths_Lesson 1

Lesson 1

L.O I am learning to read and interpret line graphs.

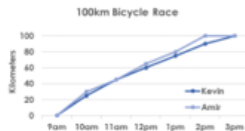

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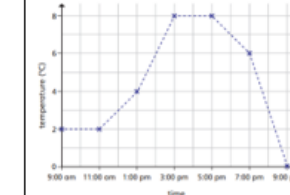
<https://corbettmathsprimary.com/2018/07/19/line-graphs-video/>

Fluency

Key vocabulary: graph, line, data, group, represent, axis,	Your answer
<p>5a. True or false? Kevin won the bicycle race.</p> 	
<p>9a. According to the graph, which statements are correct? A. On Sunday, the hiker walked quickest after 2pm. B. The hiker had walked 5km by 10am on Saturday. C. The hiker stopped for a break at 12pm on Saturday. Hiking Weekend</p> 	

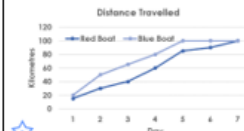
Week 4_Maths_Lesson 1

The graph shows the temperature in Birmingham on one day.

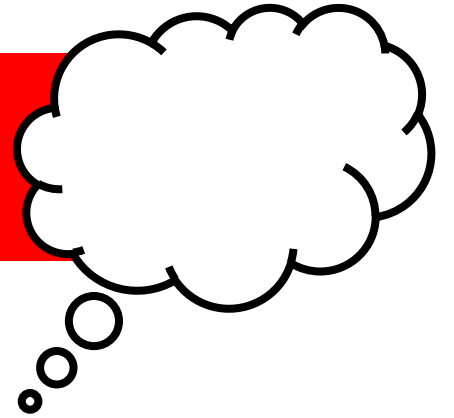


- What was the temperature at 1:00 pm?
- What was the difference in temperature between 11:00 am and 1:00 pm?
- Between which times was the temperature increasing?
- How often was the temperature recorded?

Reasoning

Key vocabulary: graph, line, data, group, represent, axis,	Your answer
<p>5a. Yulia and Naveed are interpreting a graph. Yulia says, "The blue boat reached their destination on Day 5." Naveed says, "The red boat travelled 100km between Day 4 and Day 7." Who is correct? Explain.</p> 	

Evaluation



Which skills or knowledge have I used or improved today?

Have I learnt something new today?

What do I need to remember?