02/02/21

(Starter) O LO: Can I recap my knowledge of converting units of measure like capacity (ml, l and cl)?

(Main) O LO: Can I continue to interpret line graphs and use them to solve problems?

Start by completing the starter task below on converting between ml, l and cl. For further guidance on this, check the maths weekly input video on Class 4's page.

To move from millilitres to centilitres, you _____

To move from centilitres to litres, you _____

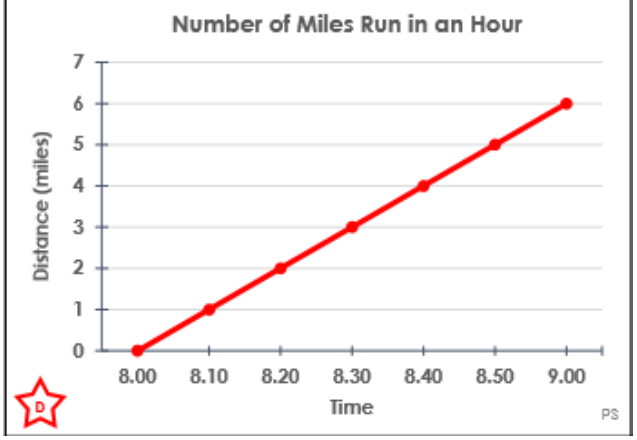
To move from litres to millilitres, you _____

To move from millilitres to litres, you _____

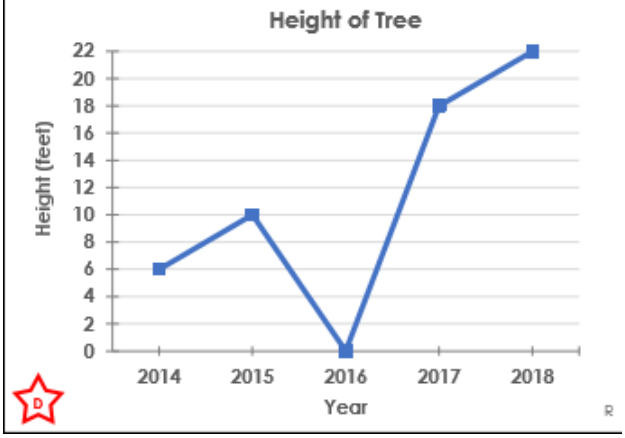
Millilitres	Centilitres	Litres
2000ml		
		7.2l
4900ml		
		9.4l
10,000ml		
	340cl	
		3l
	550cl	
		8.2l
	800cl	

Work through the questions below on line graphs. Read each graph very carefully; what information is each one trying to share with you?

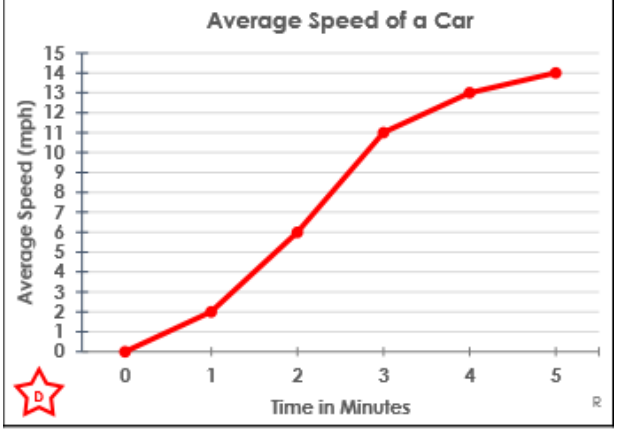
1a. By 8.50am, Bella had run 5 miles and Seth had run 6 miles. Whose performance is shown on the line graph?



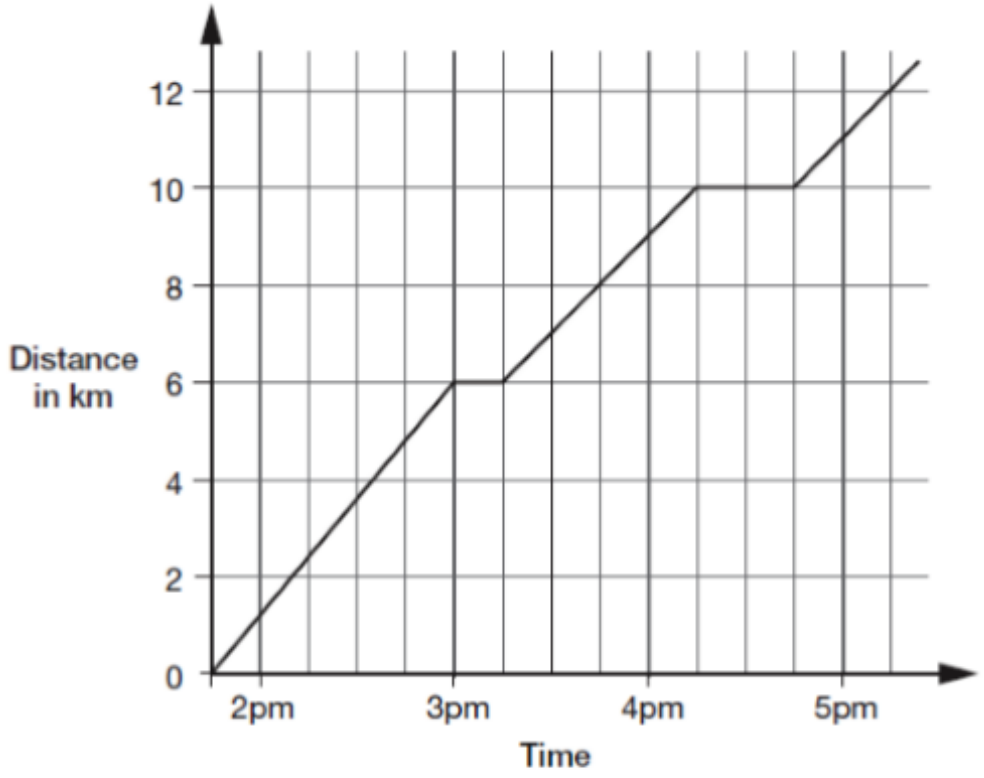
2a. Jen made a mistake when she plotted her line graph. Where do you think the mistake was made? Convince me.



3b. Lily said that the average speed of the car decreased after 4 minutes. Is she correct? Explain why.



Q1. This graph shows the distance Alfie and Chen walked in an afternoon. They started at 1:45pm and had two breaks.



How many kilometres did they walk **between** the first and second breaks?

km

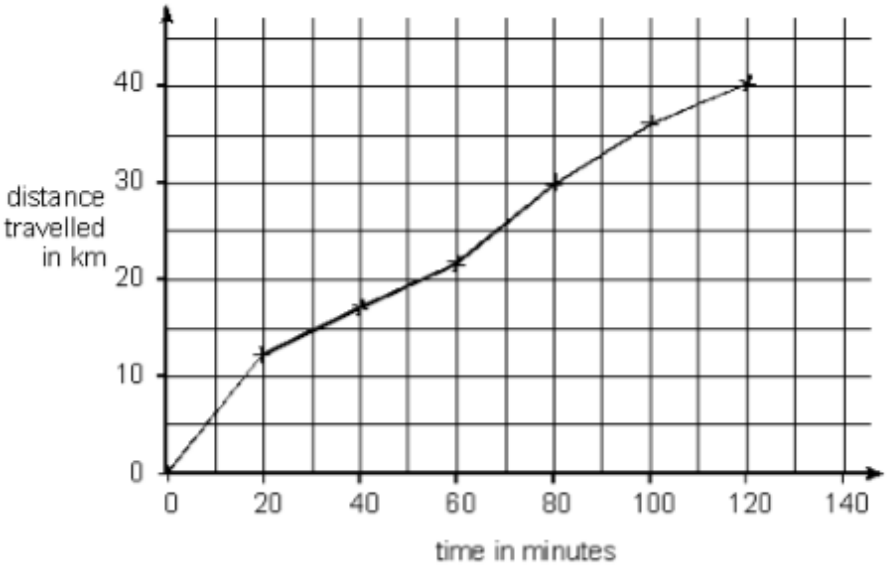
1 mark

At what time did Alfie and Chen start their second break?

1 mark

Q2. Carol went on a **40-kilometre** cycle ride.

This is a graph of how far she had gone at different times.



How many minutes did Carol take to travel the **last 10 kilometres** of the ride?

minutes

1 mark

Use the graph to estimate the distance travelled in the **first 20 minutes** of the ride.

km

1 mark

Carol says,

'I travelled further in the first hour then in the second hour'.

Explain how the graph shows this.

.....

.....

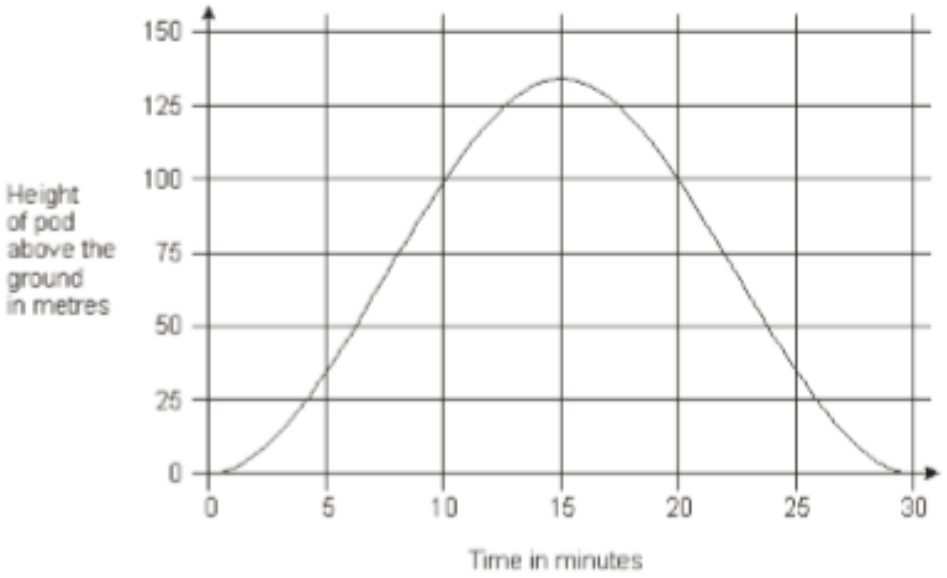
.....

1 mark

Q3. The London Eye is a big wheel with pods to carry passengers.

It takes 30 minutes for the wheel to make a complete turn.

This graph shows the height of a pod above the ground as the wheel turns.



How long from the start does it take the pod to reach a height of 75 metres?

minutes

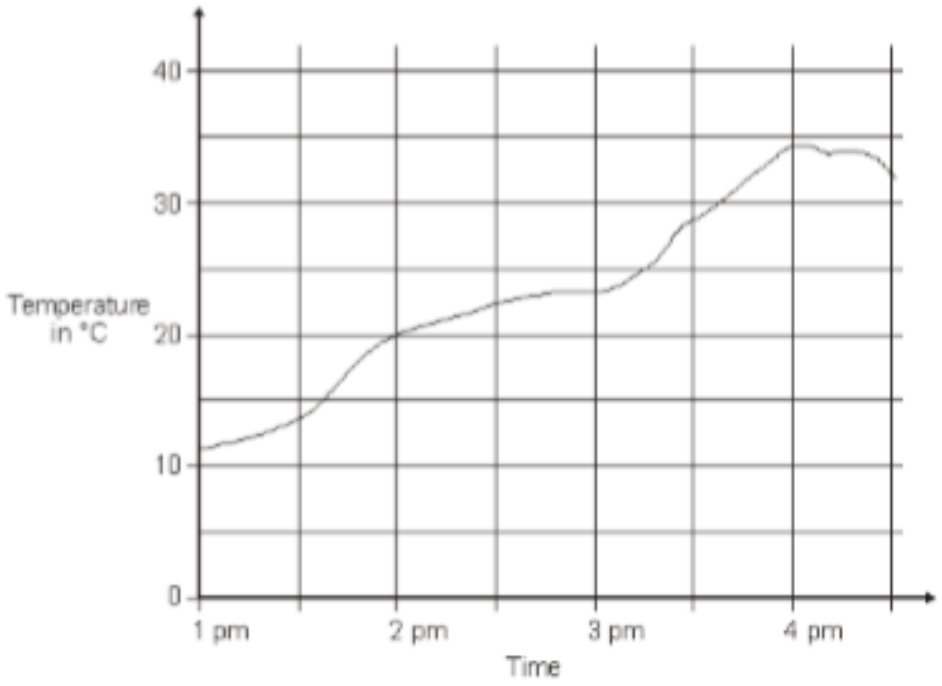
1 mark

How many metres above the ground is the pod at its highest point?

m

1 mark

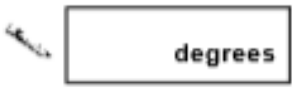
Q4. This graph shows the temperature in a greenhouse.



Use the graph to find the time when the temperature was 25°C.

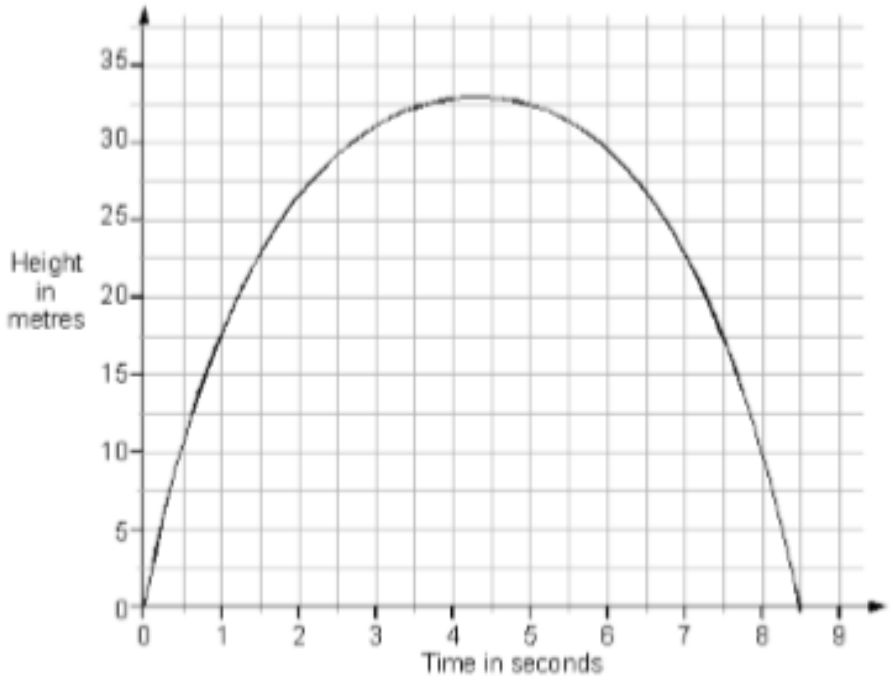
1 mark

Use the graph to find the difference between the temperature at 2 pm and the temperature at 4 pm.



1 mark

Q5. This is a graph of a firework rocket, showing its height at different times.



Estimate from the graph for how many seconds the rocket is **more than 20 metres** above the ground.

seconds

1 mark

Estimate from the graph how many metres the rocket falls in the **last second** of its flight.

m

1 mark