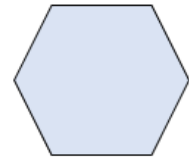


Warm-Up Challenge

Flashback 4

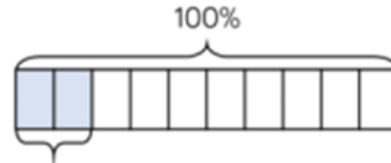
- 1) Find the missing number.

$$0.36 + \square = 1$$



- 2) Which is larger, 0.709 or 0.82?

- 3) What percentage is shaded?



- 4) Work out the area of the rectangle.



Teaching Input:

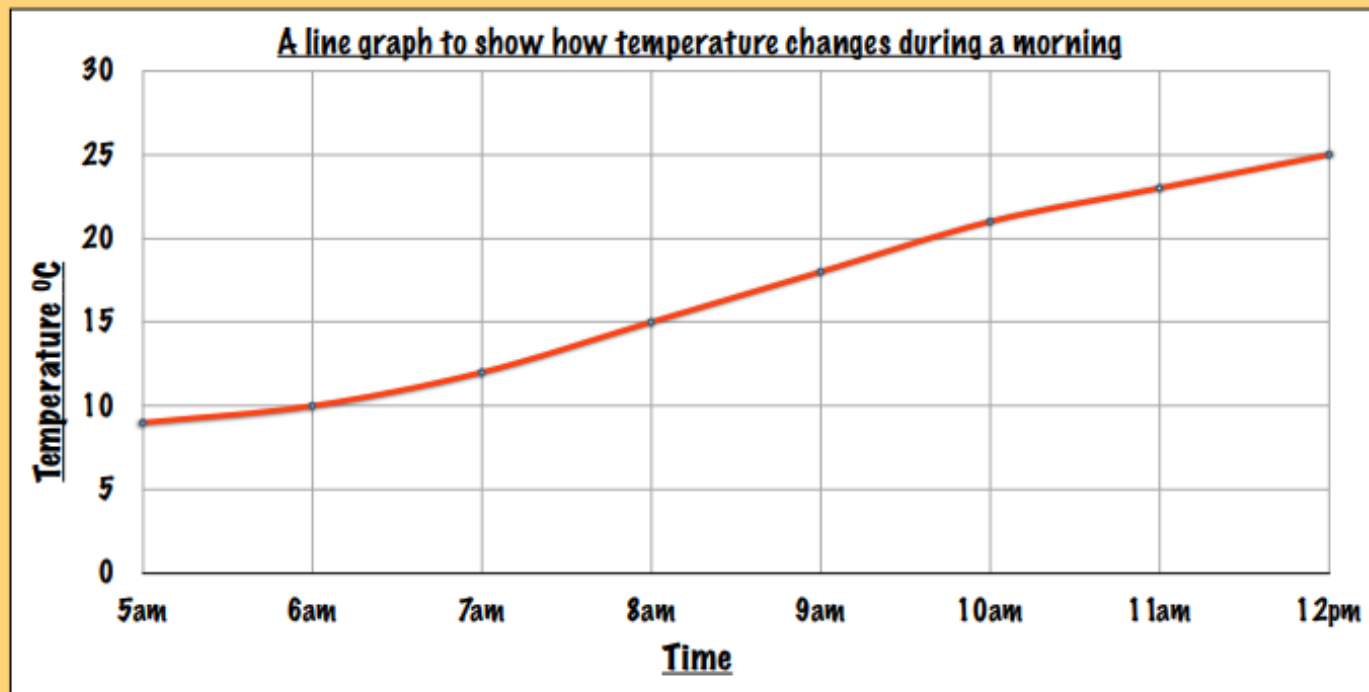
There are two different types of line graphs: some line graphs have meaning between each of the points and others do not.

A graph showing how temperature changes throughout the day will have meaning on each part of the line in between points. A graph showing test scores will not have meaning between each point. Let's have a look at some examples...



Teaching Input:

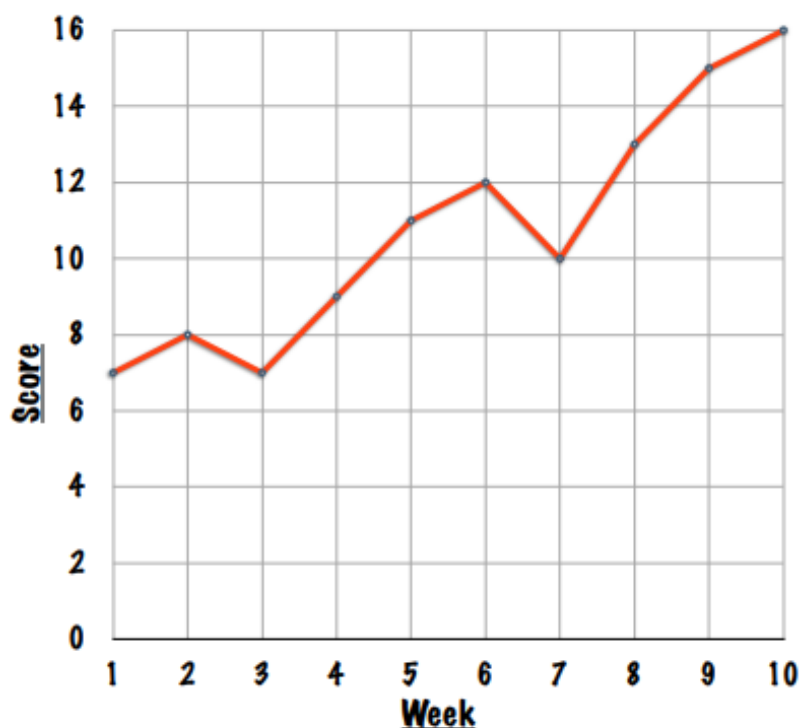
The points in between this graph show us what the temperature was in between the hours. For example, at 8.30am the temperature was around 16°C.



At what
time was
it was
20°C?

Teaching Input:

A line graph to show Harry's spelling test scores



This graph shows test scores. As the tests were one-off events, there is no meaning between the points on the line graph.

What does this graph show you about Harry's test scores?

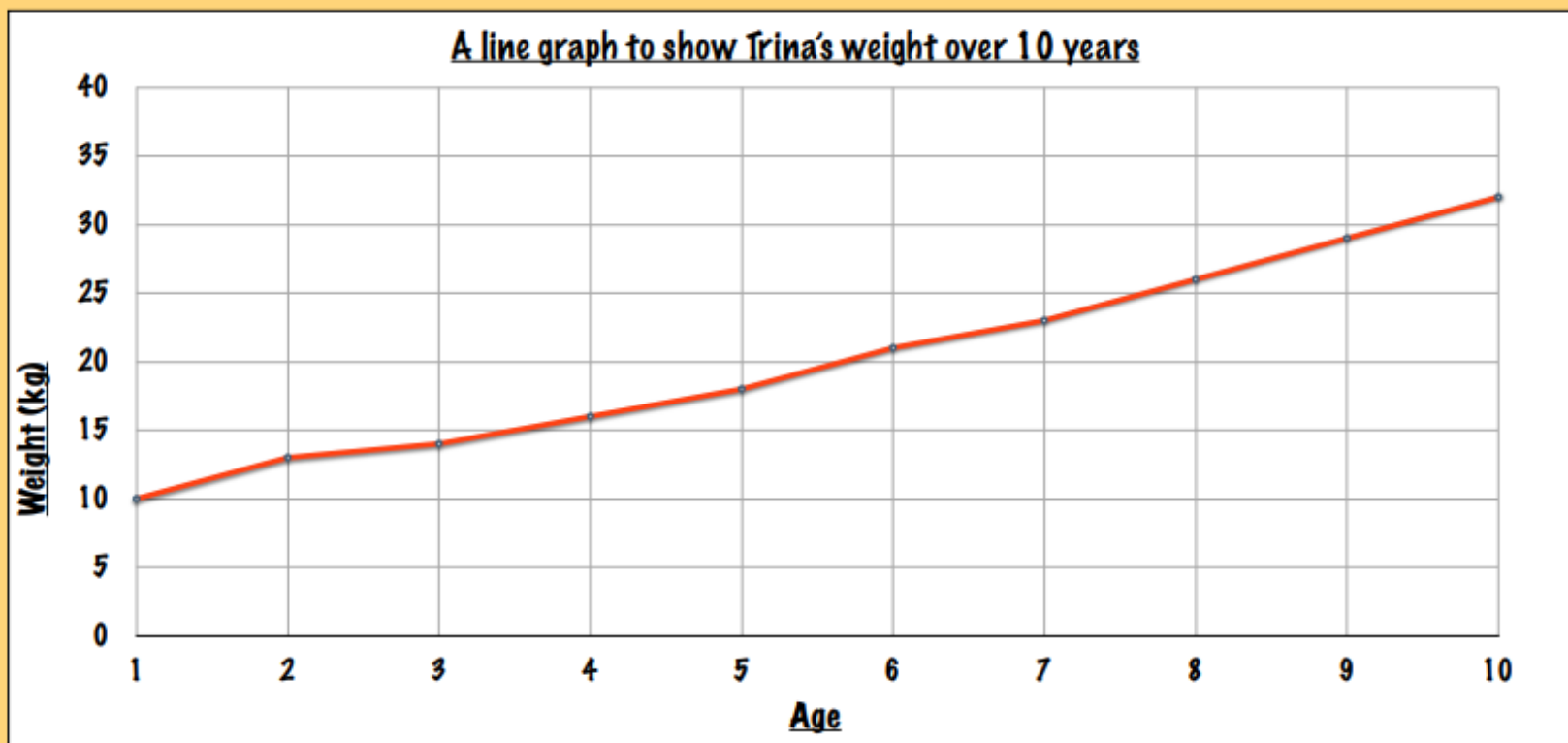


Teaching Input:

Have a look at the line graphs on the next slides. Think about what they are showing and decide whether or not there is meaning between the points on the line.



Teaching Input:

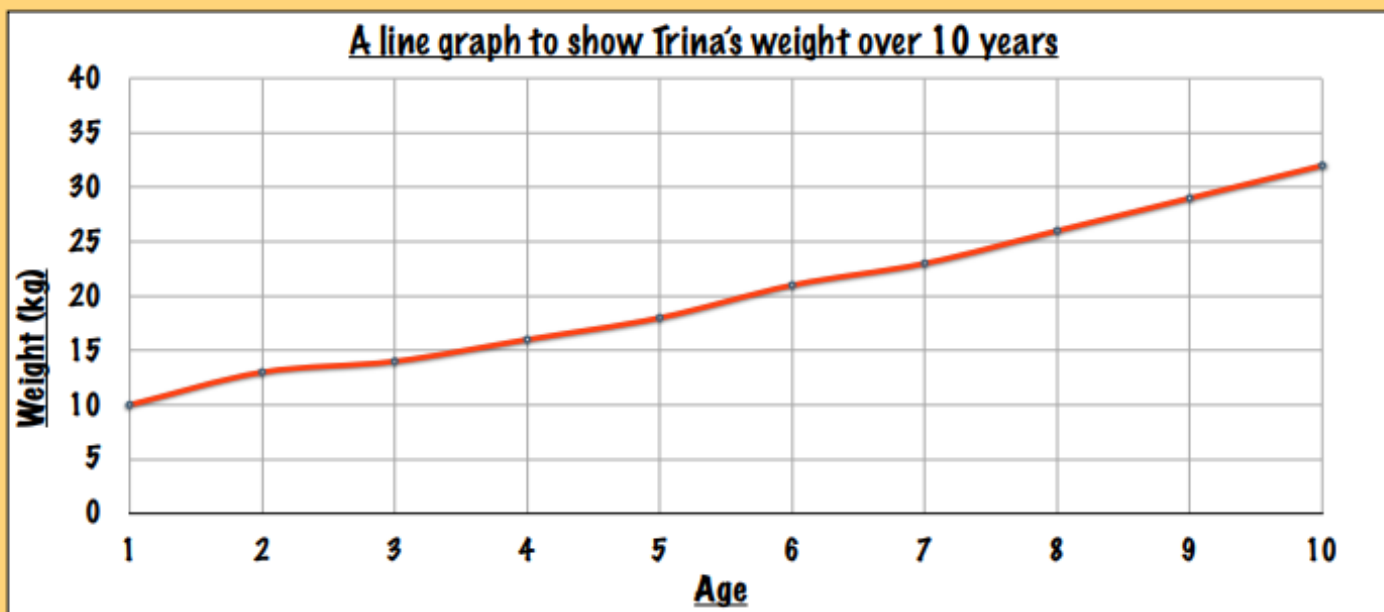


Is there meaning between the points on this graph?
Why or why not?

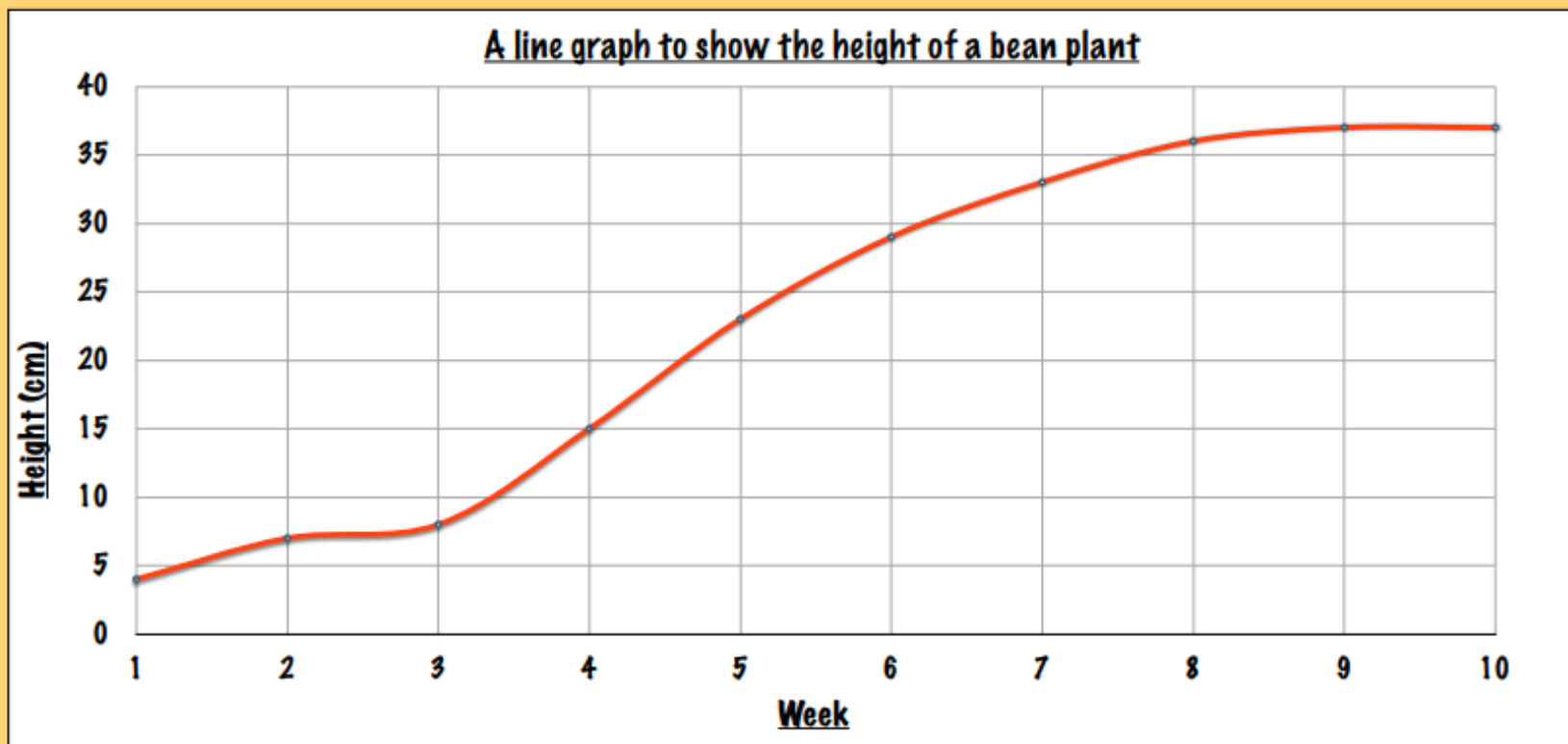
www.planbee.com

Teaching Input:

This graph does have meaning between the points as Trina's growth is continuous. You can work out roughly what she would have weighed when she was 8 and a half, for example, or how much she would have weighed when she was 3 and a quarter.



Teaching Input:

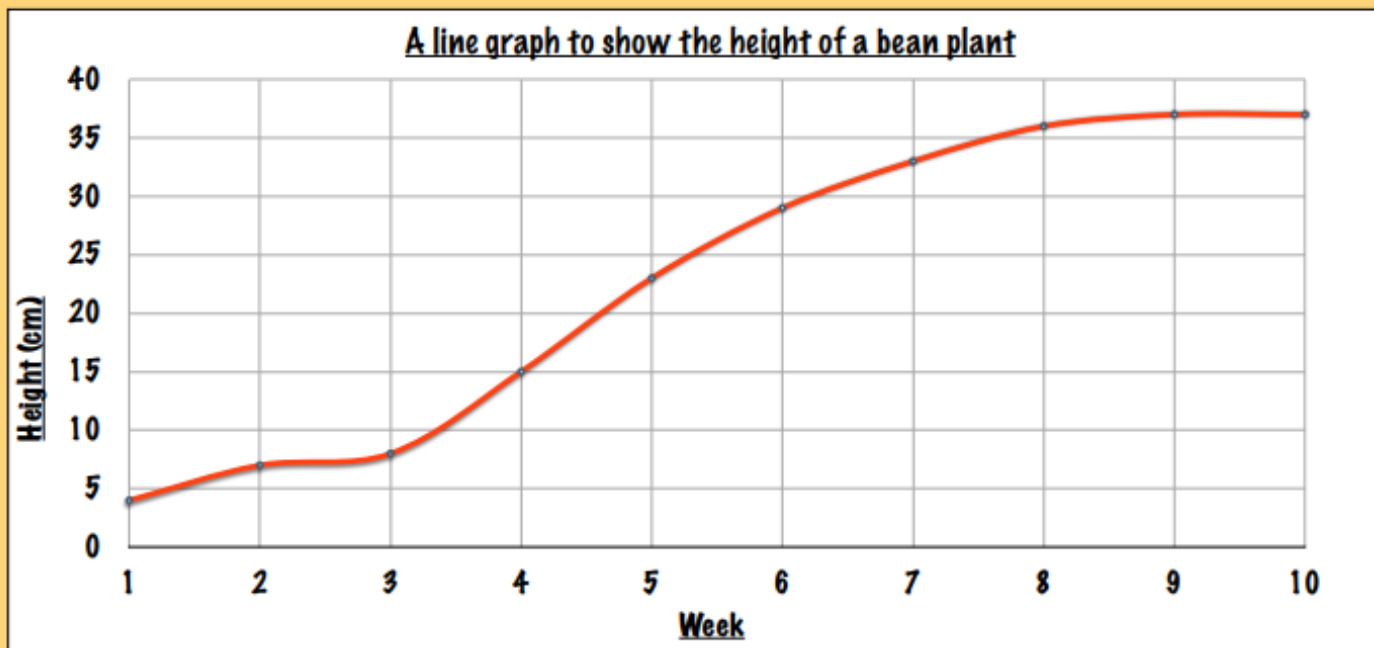


Is there meaning between the points on this graph?
Why or why not?

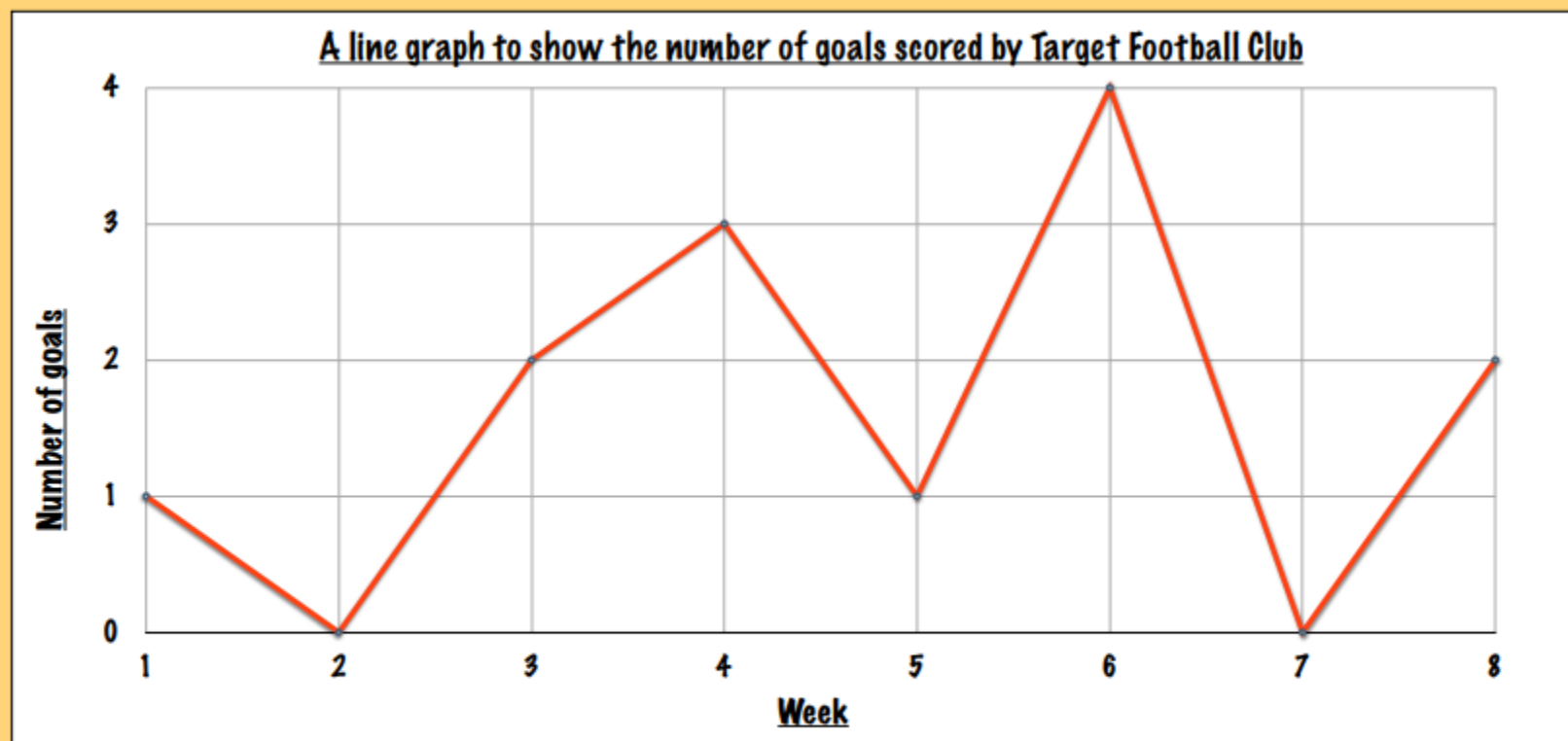
www.planbee.com

Teaching Input:

There is meaning between the points on this line graph because the plant was growing all the time. We can work out the height of the plant in the middle of each week and not just on the days it was measured. For example, halfway through week 4 the plant would have measured 19cm.



Teaching Input:

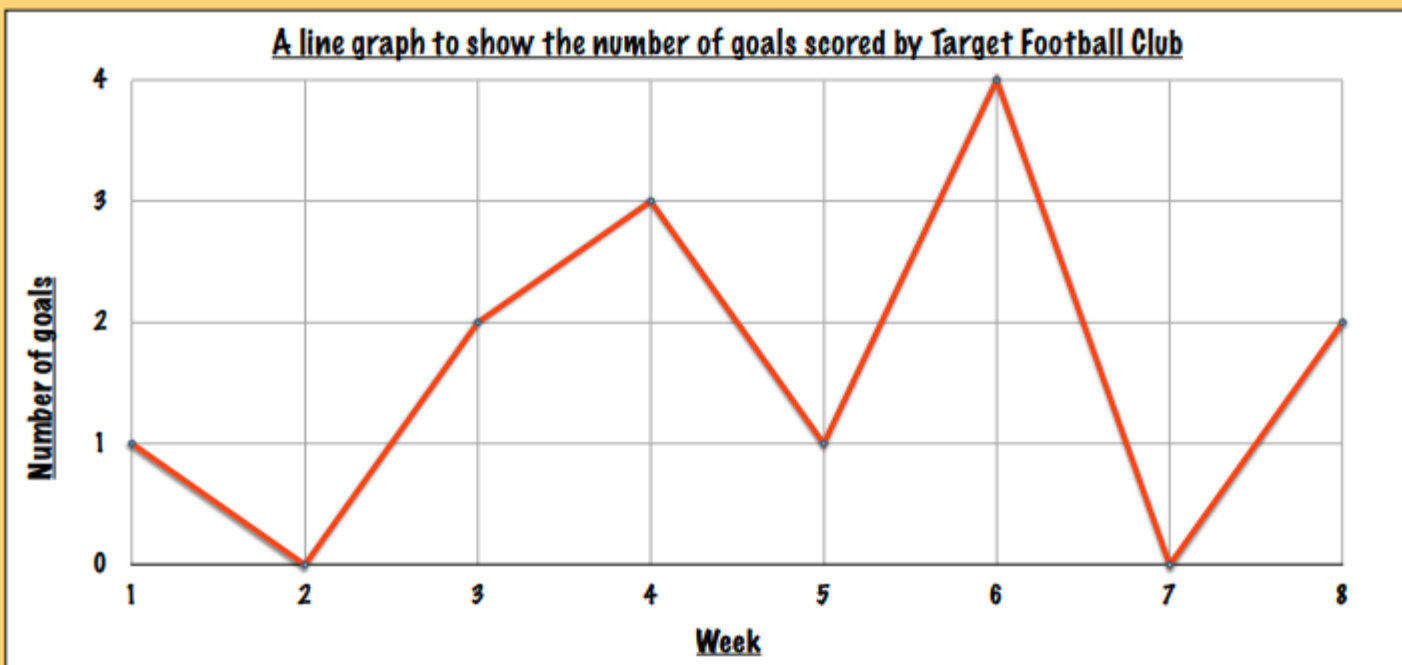


Is there meaning between the points on this graph?
Why or why not?

www.planbee.com

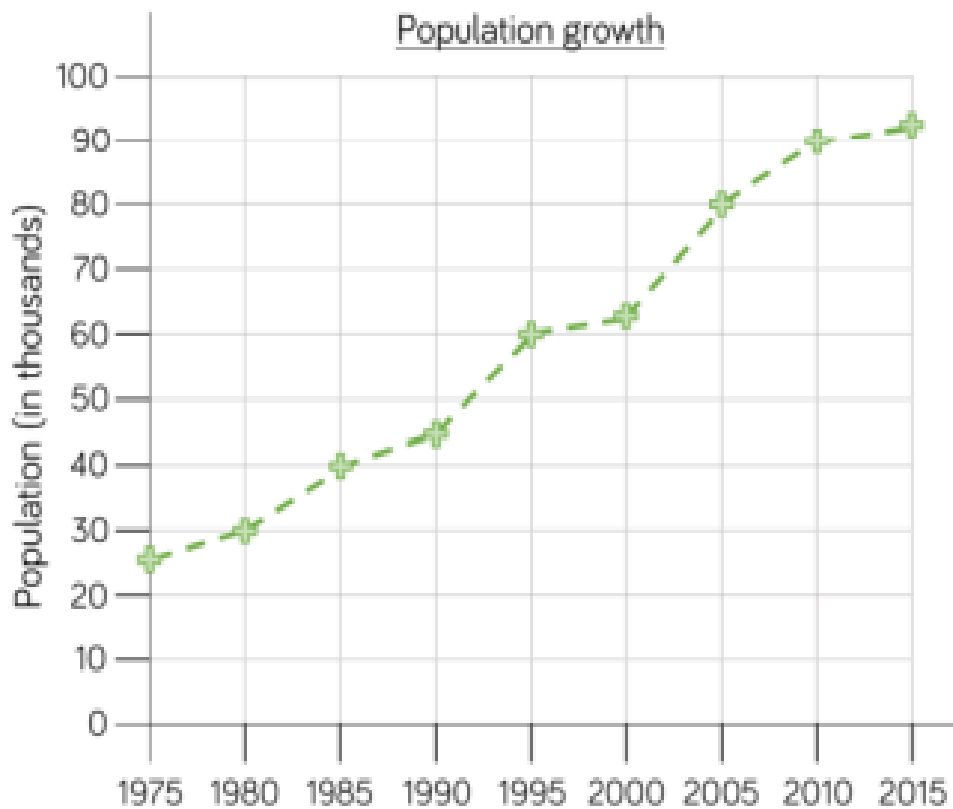
Teaching Input:

There is no meaning between the points in this bar graph. There can only be a set number of goals scored. The players do not carry on scoring goals in between games!



Teaching Input:

This line graph shows the population growth of a town.



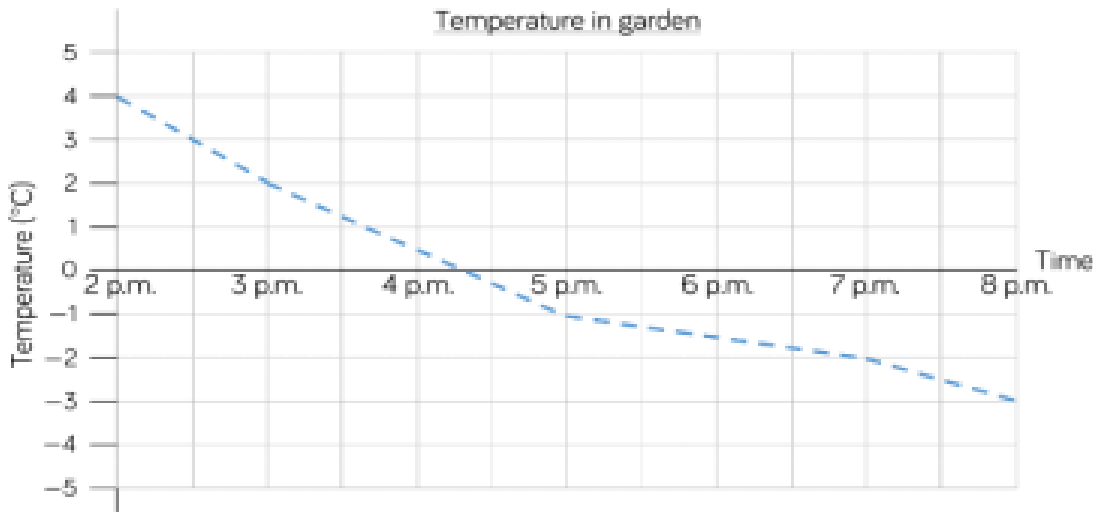
What was the population in 1985?

How much did the population grow between 1990 and 2010?

When was the population double the population of 1985?

Teaching Input:

Here is a line graph showing the temperature in a garden.



What was the temperature at 5 p.m.?

What was the difference in temperature between 3 p.m. and 7 p.m.?

When was the temperature 4°C ?

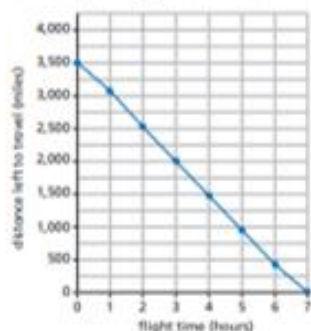
Estimate the time when the temperature was 0°C .

Estimate the temperature at 6 p.m.

Independent Challenge:

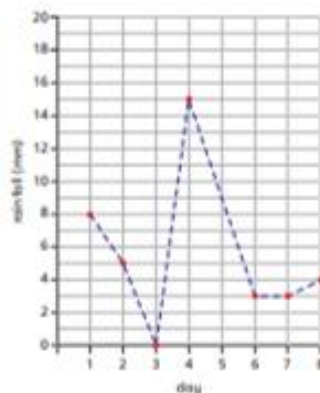
Turn to pages 5 & 6 in your work packs to answer the following questions

- 1 This graph shows how many miles an aeroplane has left to travel each hour on its journey from London to New York.



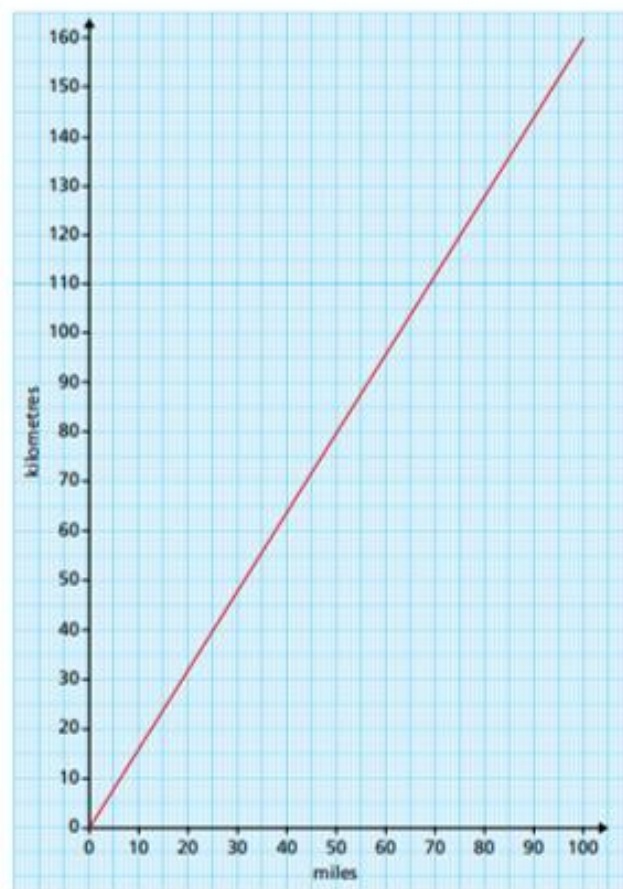
- How many hours is the flight?
- How many miles is the journey from London to New York?
- After 4 hours, how many more miles are left to travel?
- How long does it take to fly the final 1,000 miles?
- How many miles does the plane travel between 2 hours and 4 hours into the flight?
- Estimate how far the plane has travelled after 3 hours and 30 minutes.

- 2 The graph shows the rainfall in the first 8 days in October.



- How many millimetres of rain fell on the 7th October?
- It rained every day in the first 8 days in October.
Is this statement correct?
Explain your answer.
- The record amount of rainfall for October is 2.5 cm.
Has a new record been set?
Explain your answer.

- 3 This graph shows the conversion between miles and kilometres.



- How many kilometres are there in 50 miles?
- How many miles are there in 130 km?
- Explain to a partner how you worked out the answers to part a) and b).

Independent Challenge:

Turn to pages 5 & 6 in your work packs and answer the following questions:

d) Eva cycles 60 miles.

Dexter cycles 80 km.

Who cycles the furthest?

How much further does the person cycle?

e) Ron wants to convert 800 km into miles.



I can't do it
because my graph doesn't
go high enough.

Ron is incorrect. Explain why.

Complete the conversion.

Show your working.

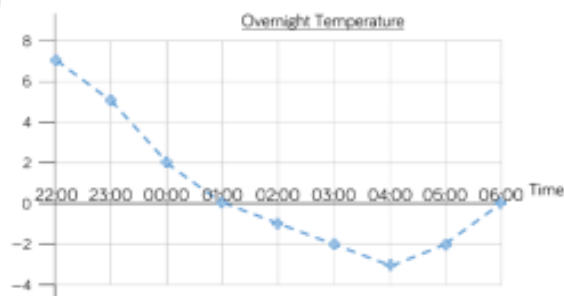
800 km = miles

f) A high-speed train can travel up to 400 km in an hour.

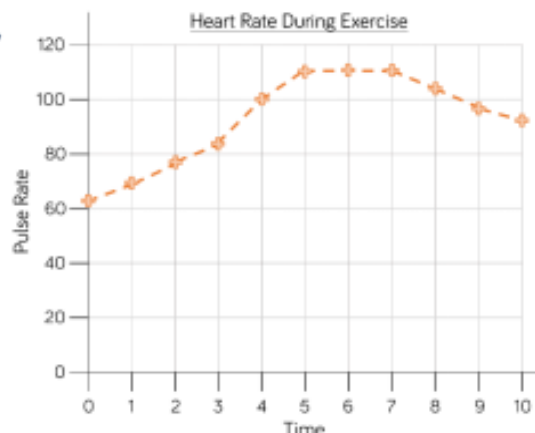
How many miles can it travel in an hour?

Extension:

Varied Fluency



What was the highest/lowest temperature?
What time did they occur?
What is the difference between the highest and lowest temperature?
How long did the temperature stay at freezing point or less?



How long did it take for the pulse rate to reach the highest level? Explain your answer, using the graph to help.
What could have happened at 5 minutes?
What could have happened at 7 minutes?

Estimate what the pulse rate was after 2 and a half minutes. How did you get an accurate estimate?

Grab a pen and piece of paper and see if you can answer these mastery challenges.