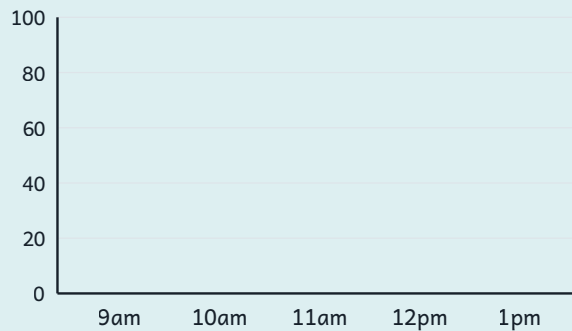


FINDING THE STEEPEST CHANGE ON A LINE GRAPH

- 1 Look at the line between each pair of points on the graph.
- 2 Find the section where the line rises or falls most steeply.
- 3 That steepest part shows the fastest change in the quantity.

WARM-UP

Draw a line graph of the cooling tea temperatures on the blank axes.



1. Plot 80 C at 9am and 60 C at 10am as points
2. Plot 48 C at 11am, 40 C at 12pm and 36 C at 1pm as points
3. Join all the points with straight lines using a ruler

PRACTICE

- 1 A mug of tea cooled from 80 C at 9am, then 60 C at 10am, 48 C at 11am, 40 C at 12pm and 36 C at 1pm.

How much did the temperature drop from the first reading to the last?

- 2 On an extra sunny day the number of pupils in the yard at break was 12, then 18, 22, 20, 15 and 24 over six readings.

At what time did the number of pupils reach its highest point?

- 3 The temperature readings for the cooling tea were 80 C, 60 C, 48 C, 40 C and 36 C.

Between which two readings did the temperature fall most steeply?

- 4 Temperature through a summer day started at 80 C, fell to 60 C, then 48 C, 40 C and 36 C.

What was the temperature likely to be halfway between the second and third readings?

? ALWAYS, SOMETIMES, NEVER

Always, sometimes or never true? Write A, S or N.

- a. Joining the points on a trend graph lets us see the change between readings. ☐
- b. A line graph of temperature rises in the afternoon. ☐
- c. The steepest part of the line shows the fastest change. ☐
- d. The line on a trend graph is only useful if all readings are above 100. ☐