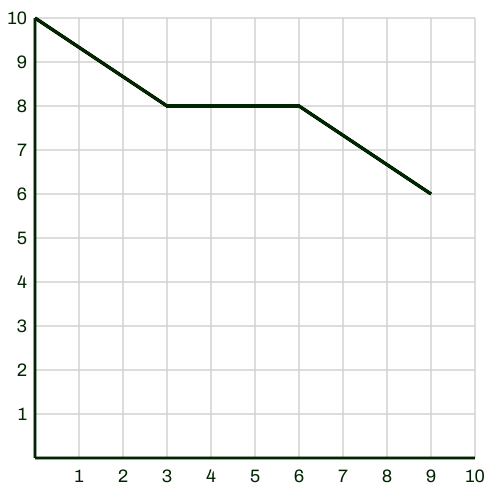


Read a relationship from the shape of its graph

NAME	DATE	SCORE / 10
------	------	------------

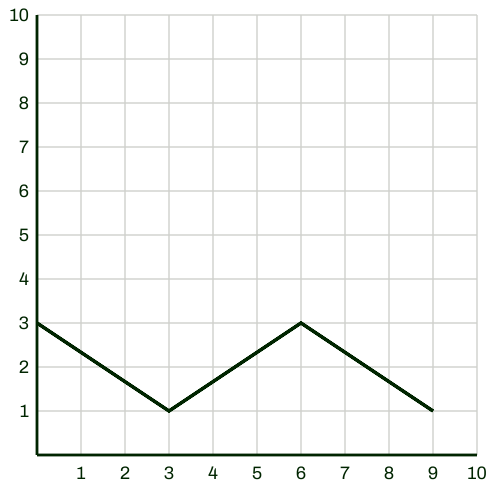
- 1** The graph shows the water level in a tank, in centimetres, against time in minutes. Based on the graph, how does the water level change as time goes on?



- ☐ The water level goes up, then stays the same, then goes down
- ☐ The water level goes down, then stays the same, then goes down
- ☐ The water level goes down, then goes up, then goes down
- ☐ The water level goes down, then stays the same, then goes up

2

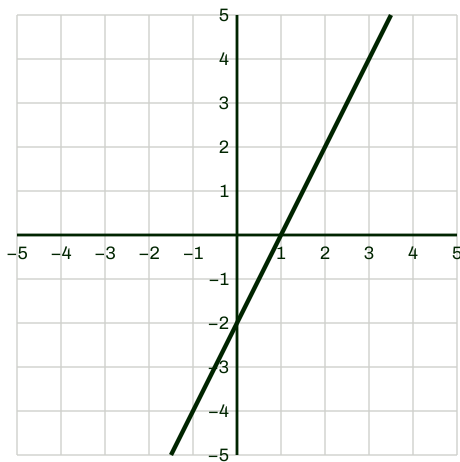
The graph shows the water level in a tank, in centimetres, against time in minutes. Write how the water level changes as time goes on.



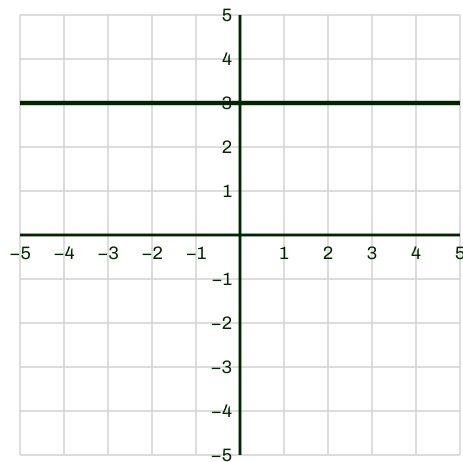
3

Match each graph to how y changes as x increases.

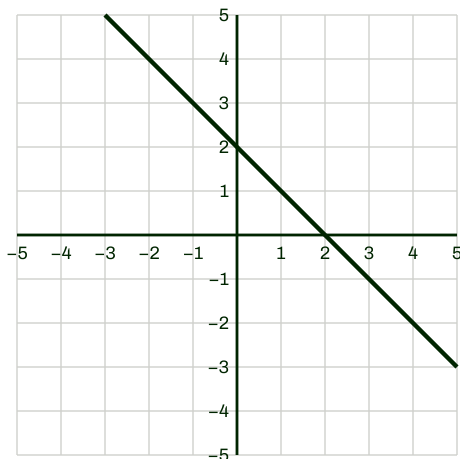
A



B



C



- 1 As x increases, y increases.
- 2 As x increases, y decreases.
- 3 As x increases, y stays the same.

A →

B →

C →

4

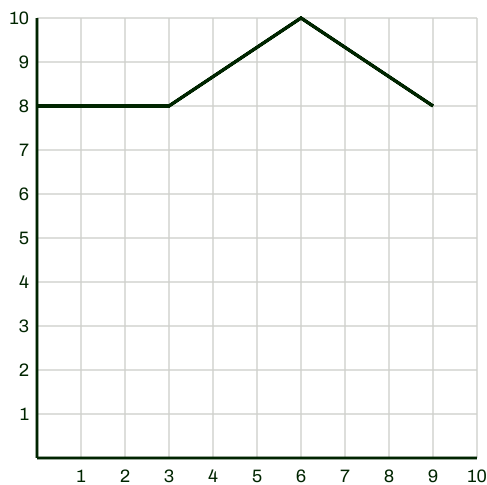
The graph shows the water level in a tank, in centimetres, against time in minutes. Based on the graph, how does the water level change as time goes on?



- ☐ The water level goes down, then stays the same
☐ The water level stays the same, then goes down
☐ The water level stays the same, then goes up ☐ The water level goes up, then goes down

5

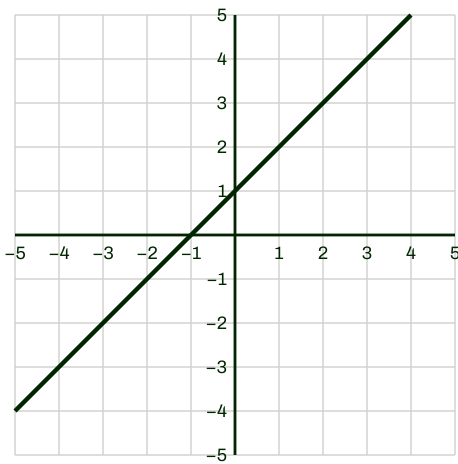
The graph shows the water level in a tank, in centimetres, against time in minutes. Write how the water level changes as time goes on.



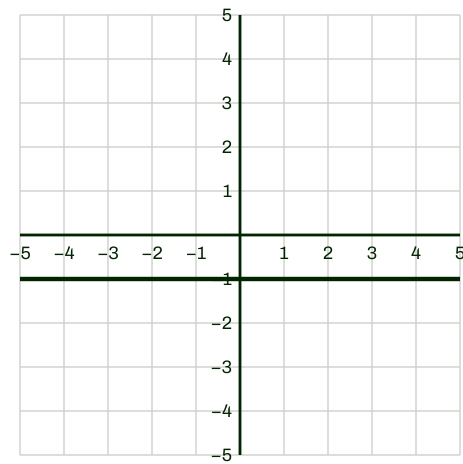
6

Match each graph to how y changes as x increases.

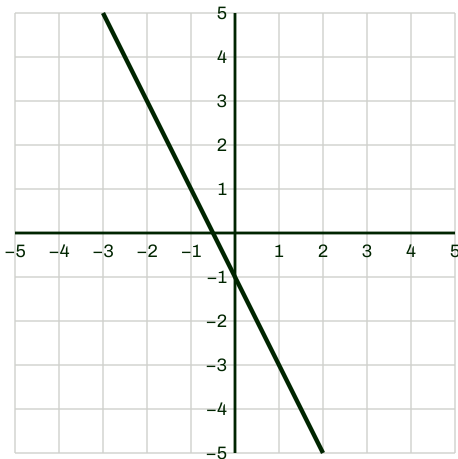
A



B



C



- 1 As x increases, y decreases.
- 2 As x increases, y increases.
- 3 As x increases, y stays the same.

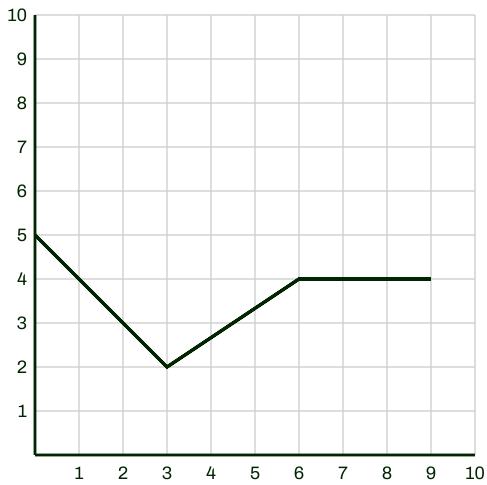
A →

B →

C →

7

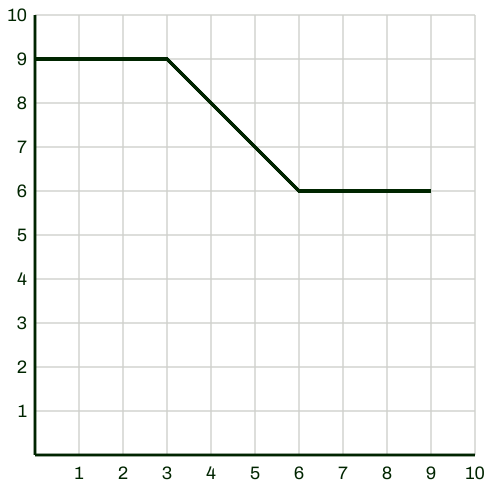
The graph shows the water level in a tank, in centimetres, against time in minutes. Based on the graph, how does the water level change as time goes on?



- ☐ The water level stays the same, then goes up, then stays the same
- ☐ The water level goes down, then goes up, then stays the same
- ☐ The water level stays the same, then goes up, then goes down
- ☐ The water level goes down, then goes up, then goes down

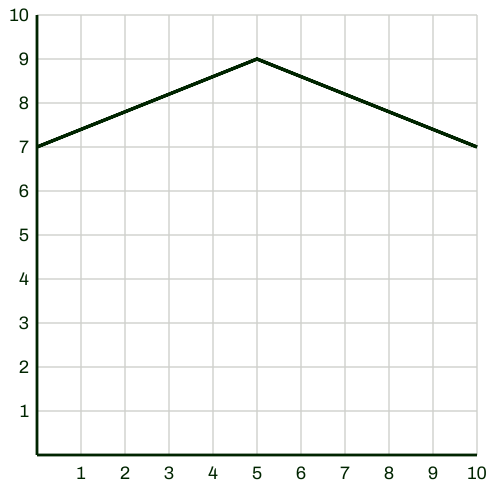
8

The graph shows the water level in a tank, in centimetres, against time in minutes. Write how the water level changes as time goes on.



9

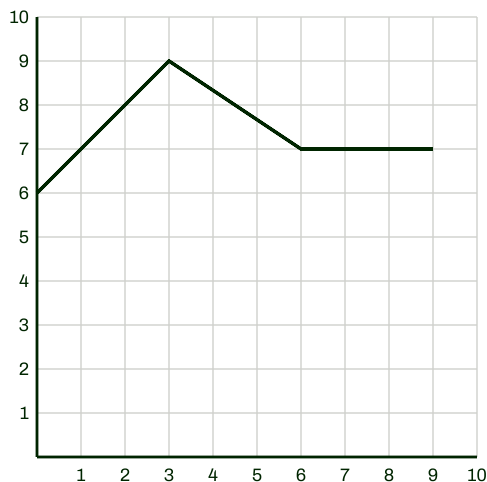
The graph shows the temperature in a room, in degrees, against time in hours. Based on the graph, how does the temperature change as time goes on?



- ☐ The temperature goes up, then goes down
- ☐ The temperature goes up, then stays the same
- ☐ The temperature stays the same, then goes down
- ☐ The temperature goes down, then goes up

10

The graph shows Ana's distance from home, in metres, against time in minutes. Based on the graph, how does Ana's distance from home change as time goes on?



- ☐ Ana's distance from home goes up, then goes down, then goes up
- ☐ Ana's distance from home goes up, then goes down, then stays the same
- ☐ Ana's distance from home stays the same, then goes down, then goes up
- ☐ Ana's distance from home stays the same, then goes down, then stays the same

Read a relationship from the shape of its graph

1 The water level goes down, then stays the same, then goes down

4 The water level stays the same, then goes down

7 The water level goes down, then goes up, then stays the same

10 Ana's distance from home goes up, then goes down, then stays the same

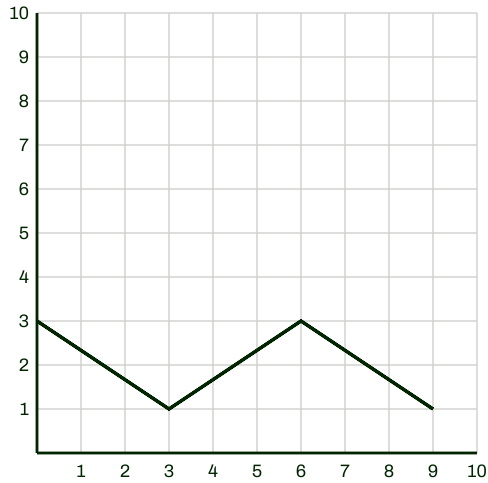
3 $A \rightarrow 1, B \rightarrow 3, C \rightarrow 2$

6 $A \rightarrow 2, B \rightarrow 3, C \rightarrow 1$

9 The temperature goes up, then goes down

2

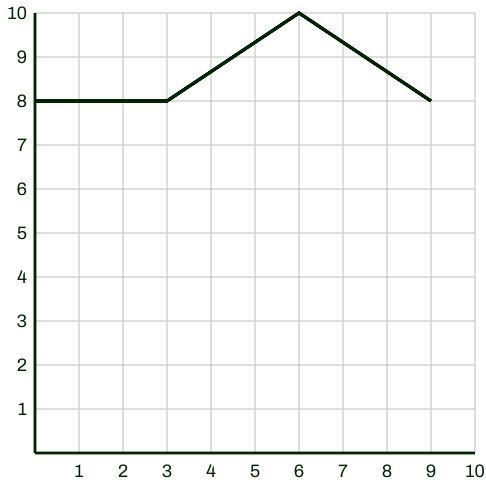
A written explanation



A model answer: The water level goes down, then goes up, then goes down: from 0 to 3 minutes it goes down from 3 to 1 centimetres; from 3 to 6 minutes it goes up from 1 to 3 centimetres; from 6 to 9 minutes it goes down from 3 to 1 centimetres.

What counts as right: Counts as right if it makes these points: (1) it names each part of the graph — goes down, then goes up, then goes down; (2) in that order, as time goes on; (3) it says how the water level changes in each part, not only where it starts or ends. Reading the graph from right to left, or a part that goes up described as changing the other way, does not count.

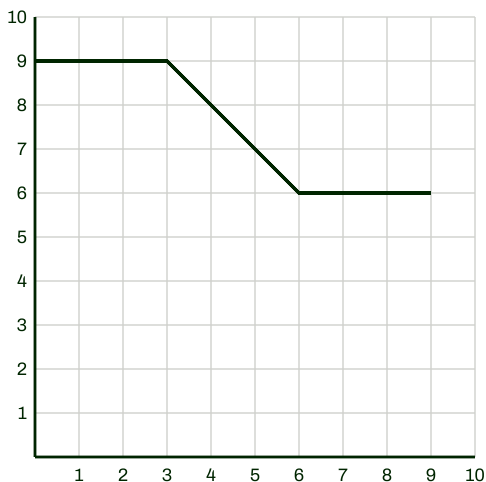
5 A written explanation



A model answer: The water level stays the same, then goes up, then goes down: from 0 to 3 minutes it stays at 8 centimetres; from 3 to 6 minutes it goes up from 8 to 10 centimetres; from 6 to 9 minutes it goes down from 10 to 8 centimetres.

What counts as right: Counts as right if it makes these points: (1) it names each part of the graph — stays the same, then goes up, then goes down; (2) in that order, as time goes on; (3) it says how the water level changes in each part, not only where it starts or ends. Reading the graph from right to left, or a part that stays the same described as changing the other way, does not count.

8 A written explanation



A model answer: The water level stays the same, then goes down, then stays the same: from 0 to 3 minutes it stays at 9 centimetres; from 3 to 6 minutes it goes down from 9 to 6 centimetres; from 6 to 9 minutes it stays at 6 centimetres.

What counts as right: Counts as right if it makes these points: (1) it names each part of the graph — stays the same, then goes down, then stays the same; (2) in that order, as time goes on; (3) it says how the water level changes in each part, not only where it starts or ends. Reading the graph from right to left, or a part that stays the same described as changing the other way, does not count.