

Unit 11 Graphs

1 A hat costs $\$h$ and a coat costs $\$c$.

The coat costs \$20 more than the hat.

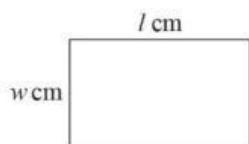
Write a function to show this. _____

2 A man is m years old. A woman is w years old.

$$w = 4m$$

Describe in words the connection between the ages of the woman and the man.

3



The length of a rectangle is l cm and the width is w cm.

$$w = l - 6$$

a Find the width of the rectangle when the length is 15 cm. _____

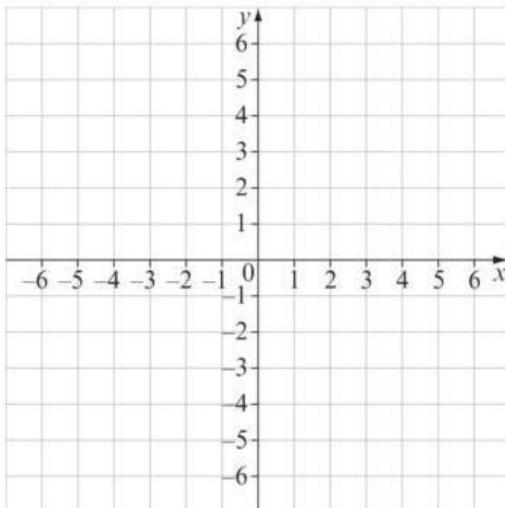
b Find the length of the rectangle when the width is 30 cm. _____

4 For the function $y = x + 2$:

a Complete this table.

x	-4	-2	0	2	4
$x + 2$			2		

b



Use these axes to draw a graph of $y = x + 2$.

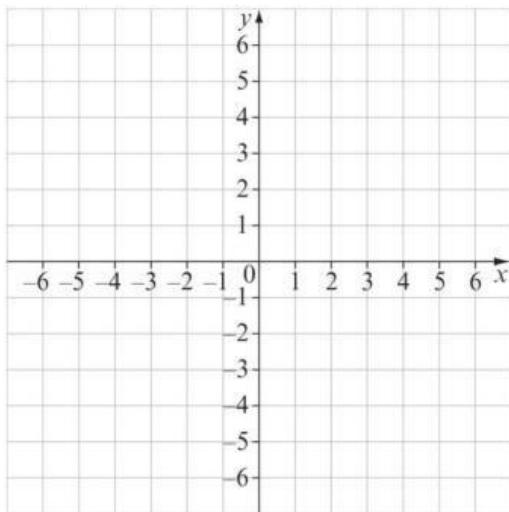
c On the same axes, draw the graph of $y = x - 1$.

5 For the function $y = 0.5x$:

a Complete this table.

x	-6	-4	-2	0	2	4	6
$0.5x$		-2				2	

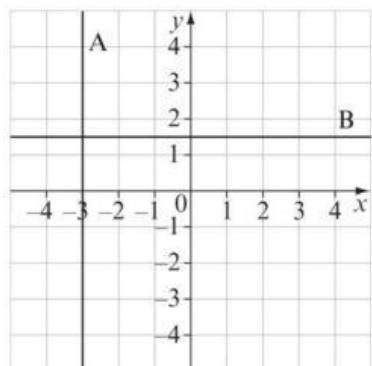
b



Use these axes to draw a graph of $y = 0.5x$.

c On the same axes, draw the graph of $y = 3x$.

6

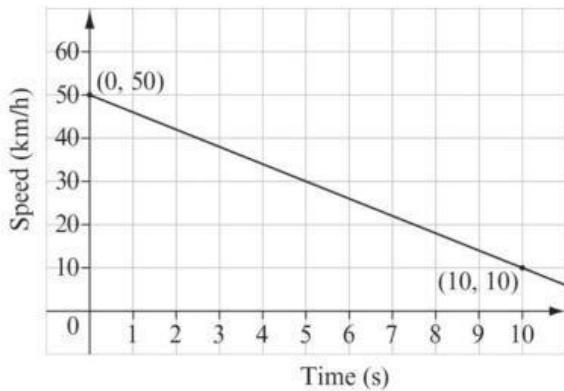


Write the names of lines A and B on this grid.

7 A straight line passes through $(-4, -8)$ and $(8, -8)$.

Write the name of the line.

8



This graph shows the speed of a car as it slows down.

a Find the speed of the car after 4 seconds. _____

b How much does the speed of the car decrease every second?

c If the car continues to slow down at the same rate, how long will it take for the car to stop?

9



This is a circular vase. The top of the vase is narrower than the bottom.

The vase is filled with water at a constant rate.

Use the axes below to sketch a graph to show how the depth of the water changes with time.

