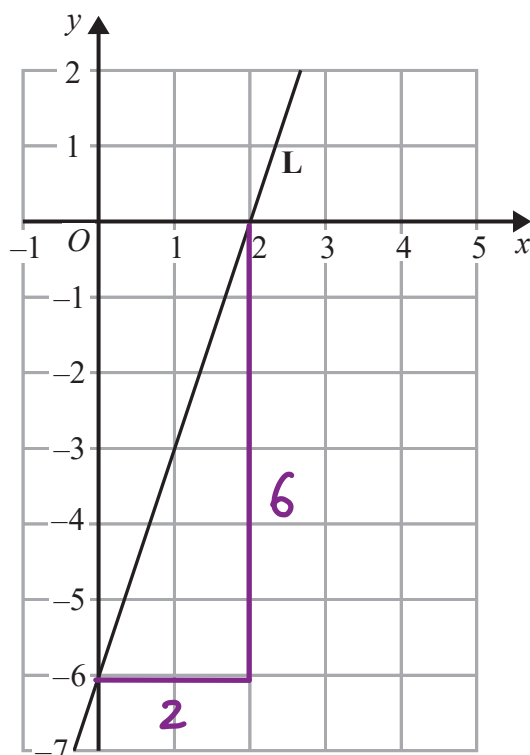


1. The line **L** is shown on the grid.



Find an equation for L.

Equation of a straight line: $y = mx + c$

m → gradient

c → y-intercept
when $x = 0$

$y = mx + c$
 $y = 0m + c$
 $y = c$

$$m = \frac{\Delta y}{\Delta x} = \frac{6}{2} = 3 \quad (1)$$

$$y = 3x + c \quad (1)$$

$$c = \text{y-intercept} = -6$$

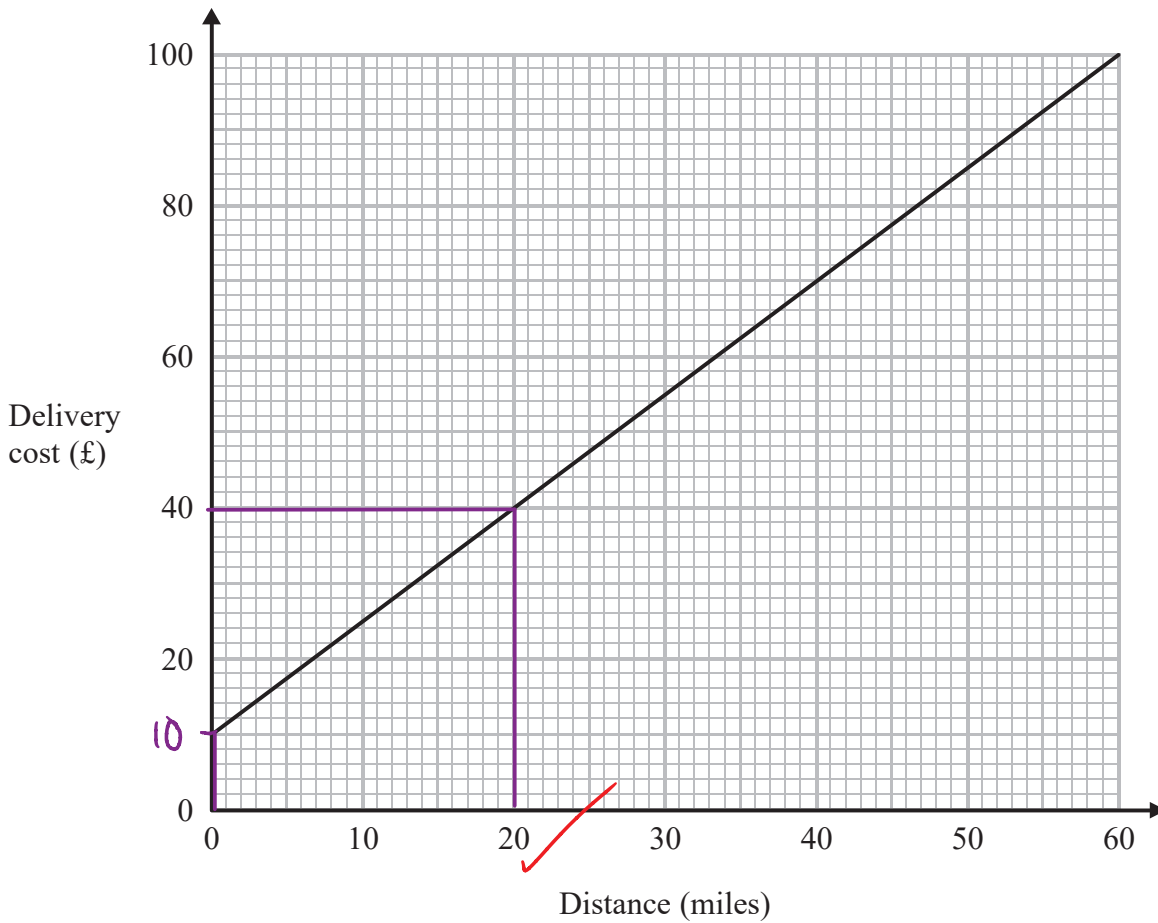
↑
Where L crosses the y axis

$$y = 3x - 6 \quad (1)$$

(Total for Question is 3 marks)

2. Tom uses his lorry to deliver bricks.

You can use this graph to find the delivery cost for different distances.



For each delivery, there is a fixed charge plus a charge for the distance.

- (a) How much is the fixed charge?

£ 10 ✓
(1)

Tom makes two deliveries of bricks.
The distance of one delivery is 20 miles more than the distance of the other delivery.

- (b) Work out the difference between the two delivery costs.

20 miles costs £40

0 miles costs £10

$$40 - 10 = 30$$

£ 30 ✓
(2)

(Total for Question is 3 marks)

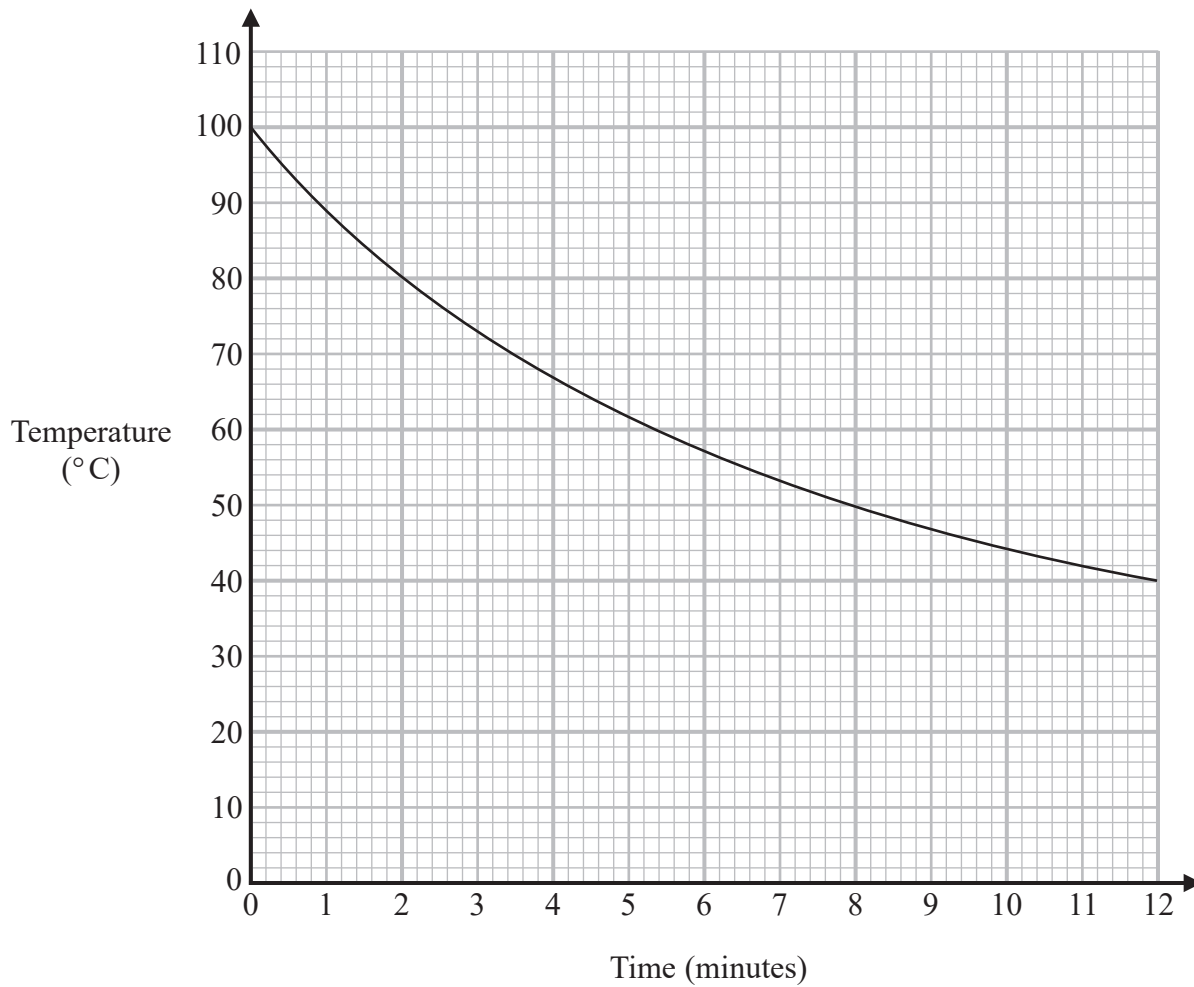
3. Write down the gradient of the line with equation $y = 2x + 3$

$$y = mx + c$$

..... 2 ✓

(Total for Question is 1 mark)

4. The graph shows information about the time, in minutes, a liquid has been cooling and the temperature of the liquid in $^{\circ}\text{C}$.



- (a) What is the temperature of the liquid at time 2 minutes?

①
 80 $^{\circ}\text{C}$
 (1)

Pam recorded the time when the liquid had a temperature of 50°C .

- (b) Write down this time.

①
 8 minutes
 (1)

Pam says that the temperature of the liquid drops more in the first 3 minutes of cooling than it does between time 9 minutes and time 12 minutes.

(c) Is Pam correct?

Give a reason for your answer.

Yes, because the gradient is steeper in the first 3 minutes and less steep between 9 and 12 minutes.

①

(1)

(Total for Question is 3 marks)