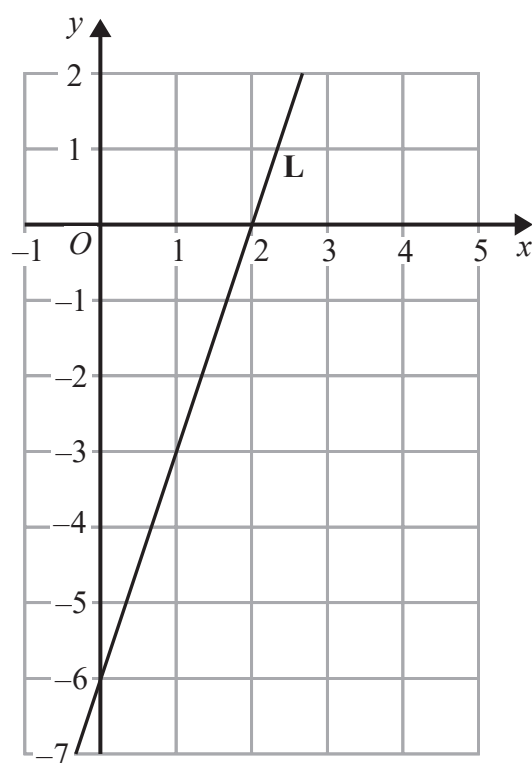


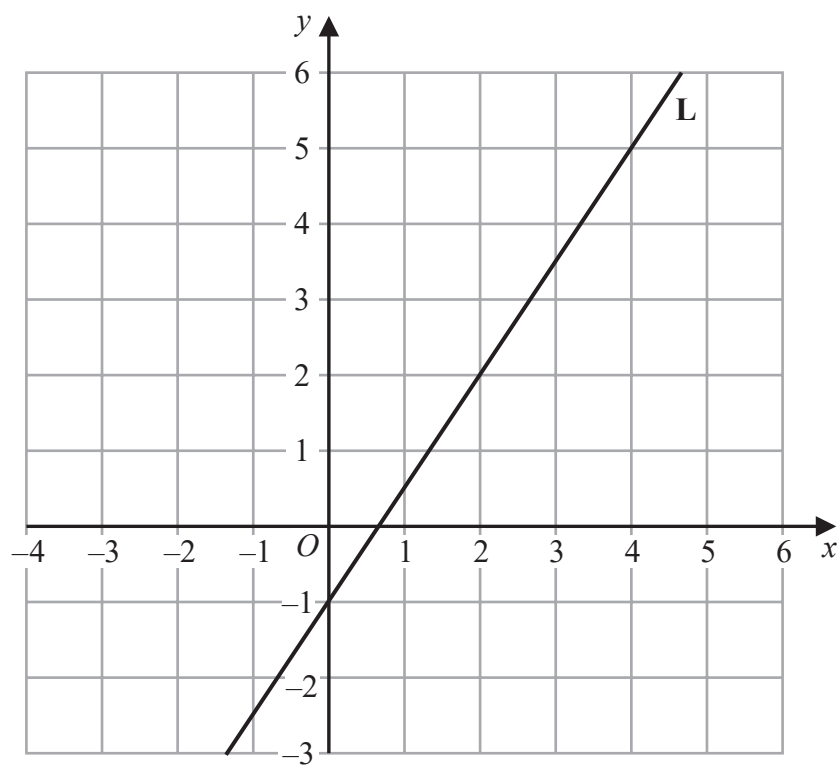
- 1 The line **L** is shown on the grid.



Find an equation for **L**.

.....  
(Total for Question 1 is 3 marks)

2 Line **L** is drawn on the grid.

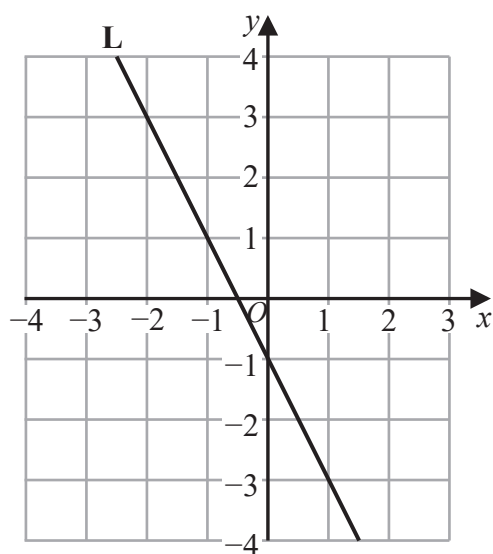


Find an equation for **L**

Give your answer in the form  $y = mx + c$

(Total for Question 2 is 3 marks)

**3** Line **L** is drawn on the grid.

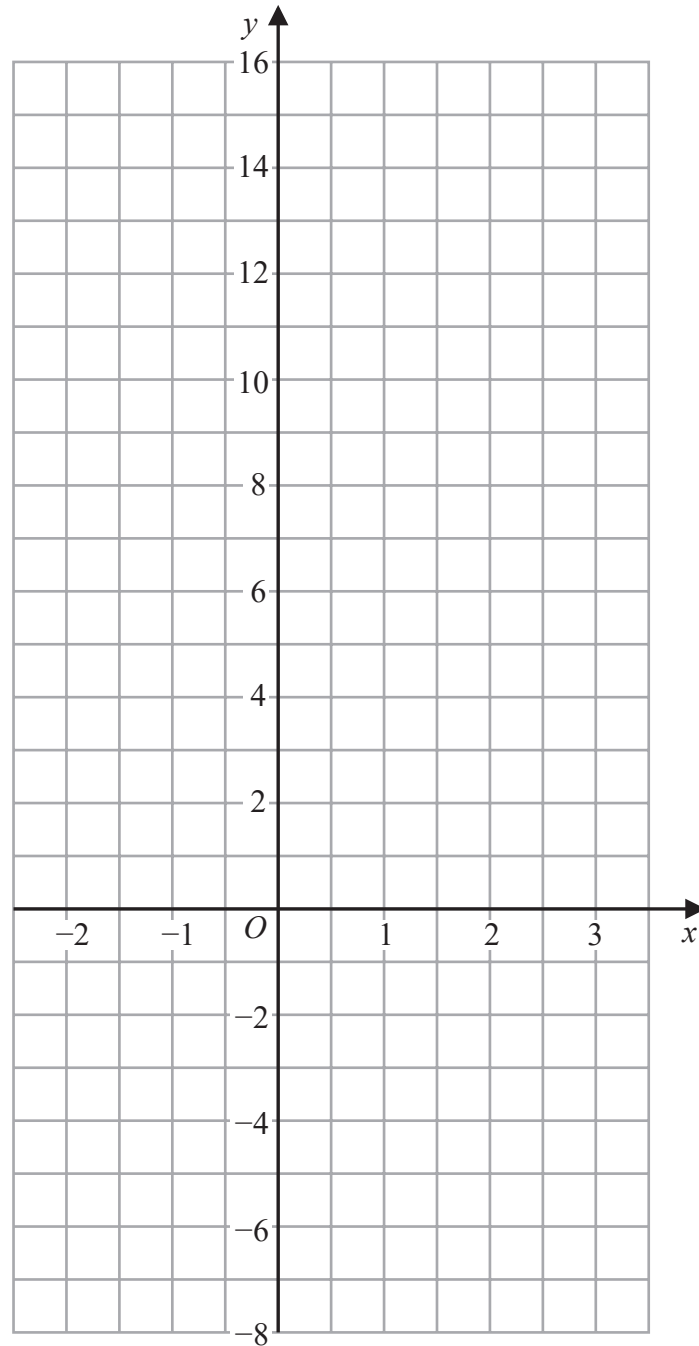


Find an equation for **L**.

.....  
(Total for Question 3 is 3 marks)

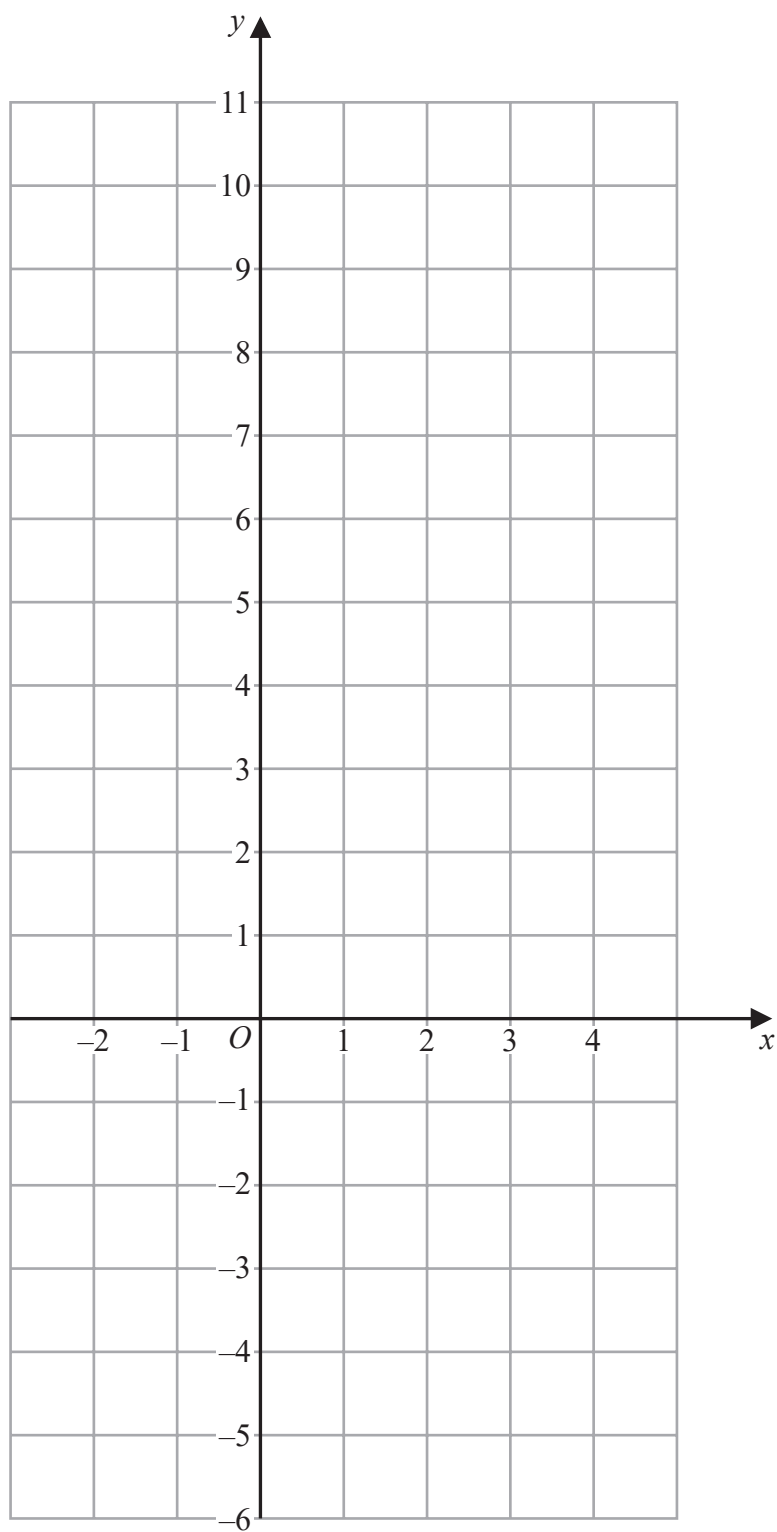
4

On the grid, draw the graph of  $y = 7 - 4x$  for values of  $x$  from  $-2$  to  $3$



(Total for Question 4 is 3 marks)

- 5 On the grid, draw the graph of  $5x + 2y = 10$  for values of  $x$  from  $-2$  to  $4$



(Total for Question 5 is 3 marks)

6

Here are the equations of two straight lines.

$$y = \frac{1}{2}x - 6 \qquad 6y = 3x + 7$$

Oscar says that these lines are parallel.

Is Oscar correct?

You must give a reason for your answer.

.....

.....

.....

**(Total for Question 6 is 2 marks)**

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- 7 The equation of the line  $L_1$  is  $y = 3x - 2$   
The equation of the line  $L_2$  is  $3y - 9x + 5 = 0$

Show that these two lines are parallel.

---

(Total for Question 7 is 2 marks)

- 8 The equation of the line  $L_1$  is  $y = 2x + 3$   
The equation of the line  $L_2$  is  $5y - 10x + 4 = 0$   
Show that these two lines are parallel.

---

(Total for Question 8 is 2 marks)



**9**  $A$  and  $B$  are points on a centimetre grid.

$A$  is the point with coordinates  $(-7, 6)$

$B$  is the point with coordinates  $(8, -5)$

Work out the length of  $AB$ .

Give your answer correct to 1 decimal place.

..... cm

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**(Total for Question 9 is 2 marks)**

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- 10**  $A$  is the point with coordinates  $(5, 9)$   
 $B$  is the point with coordinates  $(d, 15)$

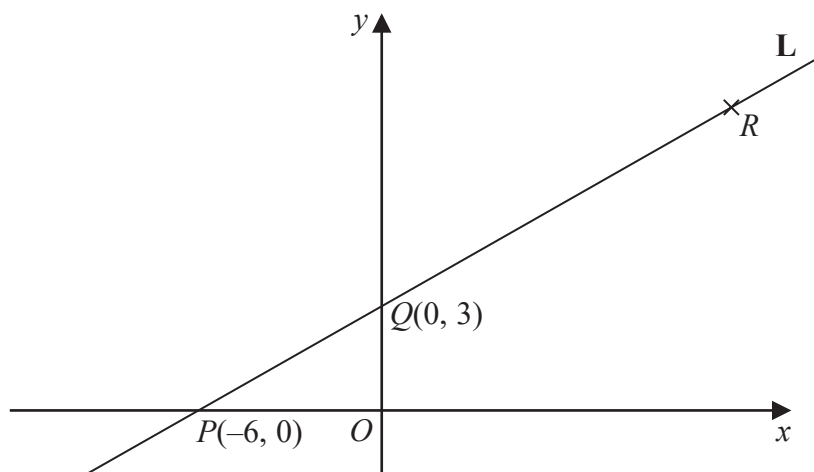
The gradient of the line  $AB$  is 3

Work out the value of  $d$ .

.....  
**(Total for Question 10 is 3 marks)**

---

**11** Here is a sketch of the line **L**.



The points  $P(-6, 0)$  and  $Q(0, 3)$  are points on the line **L**.

The point  $R$  is such that  $PQR$  is a straight line and  $PQ:QR = 2:3$

(a) Find the coordinates of  $R$ .

(....., .....)  
(2)

(b) Find an equation of the line that is perpendicular to **L** and passes through  $Q$ .

.....  
(3)

**(Total for Question 11 is 5 marks)**

**12** The points  $L$ ,  $M$  and  $N$  are such that  $LMN$  is a straight line.

The coordinates of  $L$  are  $(-3, 1)$

The coordinates of  $M$  are  $(4, 9)$

Given that  $LM : MN = 2 : 3$ ,

find the coordinates of  $N$ .

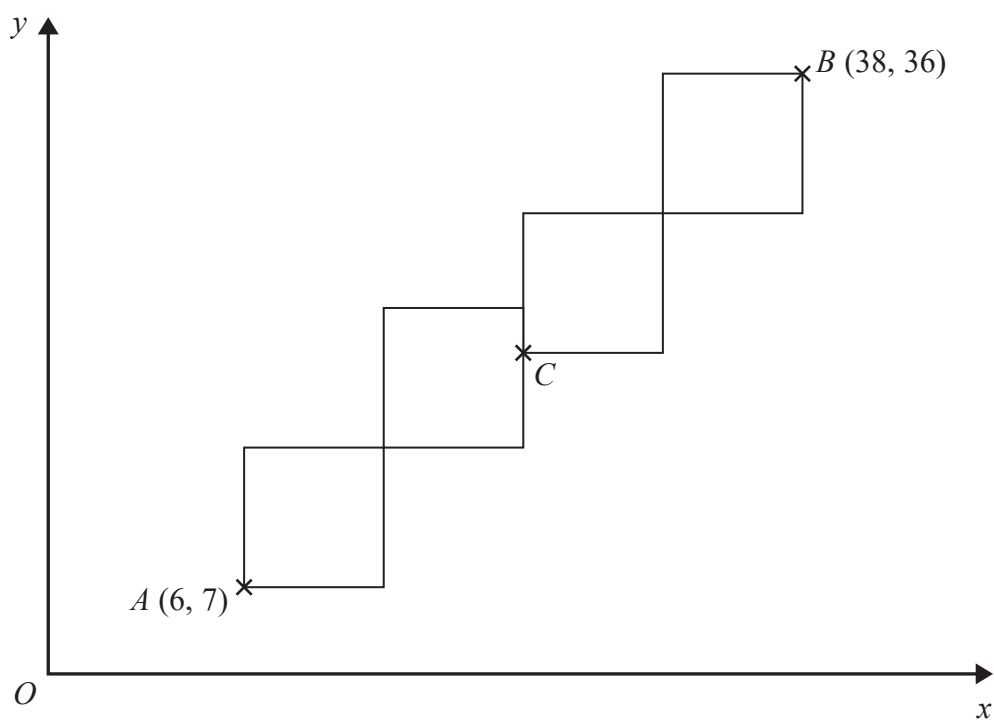
(..... , .....)

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**(Total for Question 12 is 4 marks)**

**13** A pattern is made from four identical squares.

The sides of the squares are parallel to the axes.



Point *A* has coordinates (6, 7)

Point *B* has coordinates (38, 36)

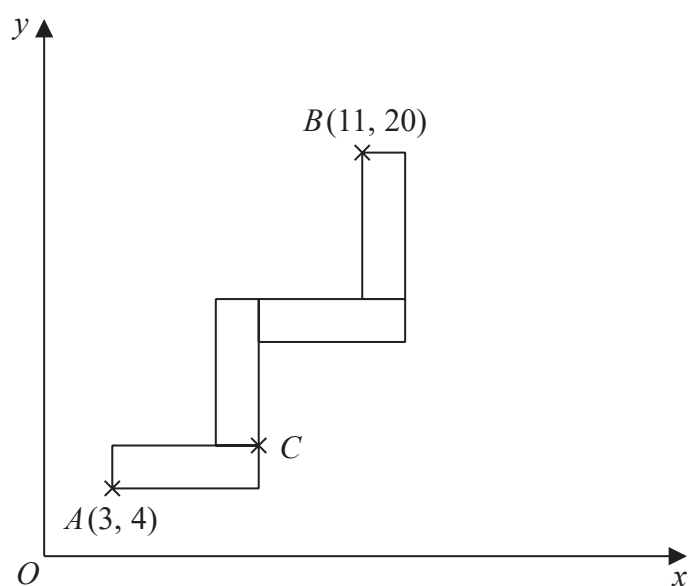
Point *C* is marked on the diagram.

Work out the coordinates of *C*.

(..... , .....)

(Total for Question 13 is 5 marks)

- 14 A pattern is made from four identical rectangles.  
The sides of the rectangles are parallel to the axes.



Point  $A$  has coordinates  $(3, 4)$   
Point  $B$  has coordinates  $(11, 20)$   
Point  $C$  is marked on the diagram.

Work out the coordinates of  $C$ .  
You must show all your working.

(....., .....)

(Total for Question 14 is 5 marks)

**15** The straight line  $L_1$  has equation  $y = 3x - 4$

The straight line  $L_2$  is perpendicular to  $L_1$  and passes through the point  $(9, 5)$

Find an equation of line  $L_2$

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(Total for Question 15 is 3 marks)

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- 16** The straight line **L** has the equation  $3y = 4x + 7$   
The point *A* has coordinates  $(3, -5)$

Find an equation of the straight line that is perpendicular to **L** and passes through *A*.

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(Total for Question 16 is 3 marks)

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