Straight Line graphs

worksheet

20 min

24 marks

1. The diagram below shows the line PQ, whose equation is $x + 2y = 12$. The line intercepts the axes at P and Q respectively.
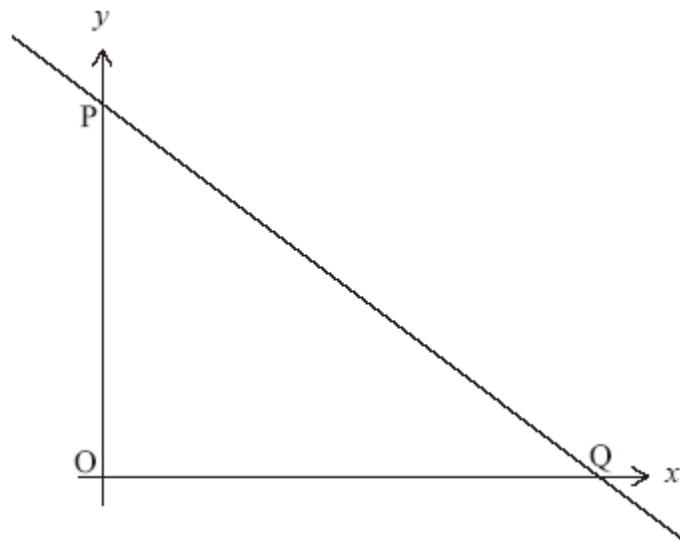

diagram not to scale

(a) Find the coordinates of P and of Q.

(3)

(b)   A second line with equation $x - y = 3$ intersects the line PQ at the point A. Find the
        coordinates of A.

(3)
(Total 6 marks)

2.   The straight line L passes through the points A(-1, 4) and B(5, 8).

(a)   Calculate the gradient of L.

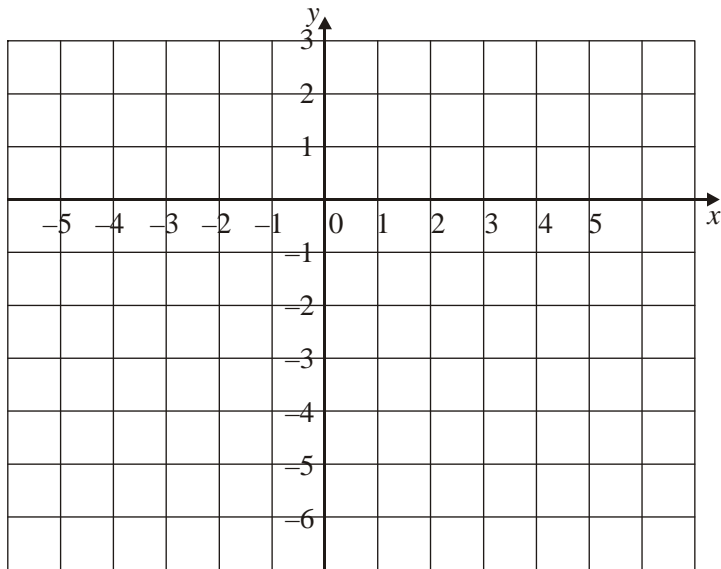**(2)**

(b)   Find the equation of L.

(2)

The line L also passes through the point P(8, y).

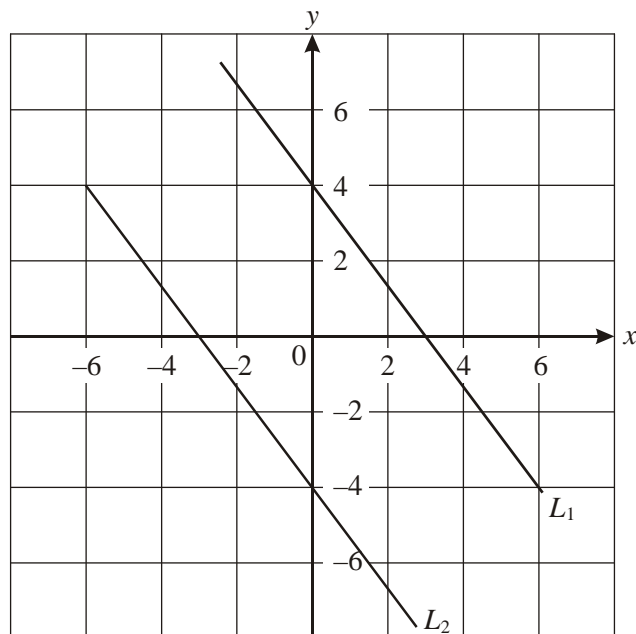(c)   Find the value of y.

(2)
(Total 6 marks)

3.

(a)   On the grid above, draw a straight line with a gradient of –3 that passes through the point (–2, 0).

(b)   Find the equation of this line.

(Total 8 marks)

4.   In the diagram, the lines L_1 and L_2 are parallel.

(a) What is the gradient of L_1?

(b) Write down the equation of L_1.

(c) Write down the equation of L_2 in the form $ax + by + c = 0$.

(Total 4 marks)