Straight line graphs 2

1)

(a) Find the co-ordinates of the midpoint of the line joining $A(-8, 3)$ and $B(-2, -3)$.

Answer(a)   (,   ) [2]

(b) The line $y = 4x + c$ passes through $(2, 6)$.

Find the value of c.

Answer(b) c =   [1]
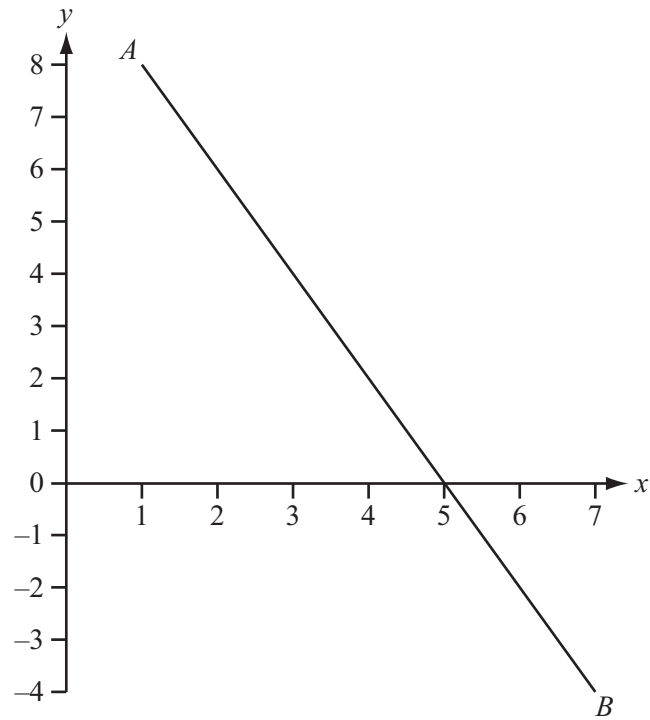
(c) The lines $5x = 4y + 10$ and $2y = kx - 4$ are parallel.

Find the value of k.

Answer(c) k =   [2]

Straight line graphs 2

2)

Write down the co-ordinates of the midpoint of the line segment joining $A(1, 8)$ to $B(7, -4)$.

Answer(b) (,   ) [1]

Find the equation of the line AB.

Answer(c)   [3]

3)

(a) The line $y = 2x + 7$ meets the y-axis at A.

Write down the co-ordinates of A.

Answer(a) A = (,   *)*   [1]

(b) A line parallel to $y = 2x + 7$ passes through $B(0, 3)$.

  (i) Find the equation of this line.

Answer(b)(i)   [2]

  (ii) C is the point on the line $y = 2x + 1$ where $x = 2$.

Find the co-ordinates of the midpoint of BC.

Answer(b)(ii) (,   .)   [3]

4)   **(a)** The two lines $y = 2x + 8$ and $y = 2x - 12$ intersect the x-axis at P and Q.

Work out the distance PQ.

Answer(a) PQ =   [2]

(b) Write down the equation of the line with gradient -4 passing through $(0, 5)$.

Answer(b)   [2]

(c) Find the equation of the line parallel to the line in **part (b)** passing through $(5, 4)$.

Answer(c)   [3]