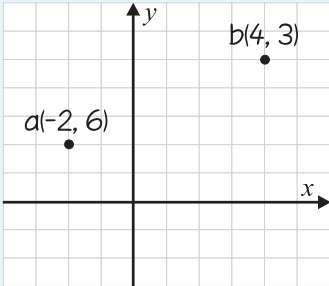


THE LINE (Q 2, PAPER 2)

2009

- 2 (a) $a(-2, 1)$ and $b(4, 5)$ are two points.
- (i) Plot the points a and b on a co-ordinate diagram.
 - (ii) Find the slope of ab .
 - (iii) Find the equation of ab .
- K is the line $3x + 2y - 9 = 0$.
- (iv) Show that K passes through the midpoint of $[ab]$.
 - (v) Show that K is perpendicular to ab .
- (b) $p(3, 0)$ is a point.
 t and s are two distinct points on the y -axis and $|pt| = |ps| = 5$.
- (i) Find the co-ordinates of t and the co-ordinates of s .
 - (ii) Find the area of the triangle tsp .
 - (iii) $ptus$ is a parallelogram in which $[ts]$ is a diagonal.
Find the co-ordinates of the point u .

ANSWERS

- 2 (a) (i)  (ii) $\frac{2}{3}$ (iii) $2x - 3y + 7 = 0$
- (b) (i) $t(0, 4), s(0, -4)$ (ii) 12 (iii) $u(-3, 0)$