## The Line (Q 2, Paper 2)

2004

2 (a) $p(5,-8)$ and $q(11,10)$ are two points.
Find the co-ordinates of the midpoint of [ $p q]$.
(b) $a(-1,-2), b(3,1), c(0,4)$ are three points.
(i) Find the length of [ab].
(ii) Calculate the area of the triangle $a b c$.
(iii) The line $L$ is parallel to $a b$ and passes through the point $c$.

Find the equation of $L$.
(iv) Show that the point $d(-4,1)$ is on $L$.
(v) Investigate whether $a b c d$ is a parallelogram.

## Answers

2 (a) $(8,1)$
(b) (i) 5
(ii) $\frac{21}{2}$
(iii) $3 x-4 y+16=0$
(v) Yes

