THE LINE (Q 2, PAPER 2)

1997

2 (a) Find the distance between the two points $(-5, 1)$ and $(7, -4)$.

(b) L is the line $x - 2y + 2 = 0$.
M is the line $3x + y - 8 = 0$.
Find the co-ordinates of p, the point of intersection of L and M.
L and M cut the x-axis at q and r, respectively.
Find the area of triangle pqr.

(c) K is the line which contains the points $a(0, 4)$ and $b(3, 0)$.
Find the equation of K.
N is the line which is perpendicular to K and which contains the origin.
Find the equation of N.
Investigate if b is the image of a under the axial symmetry in N.

ANSWERS

2 (a) 13

(b) $p(2, 2)$, $\frac{14}{3}$

(c) K: $4x + 3y - 12 = 0$; N: $3x - 4y = 0$; No