THE LINE (Q 2, PAPER 2)

2003

- 2 (a) Find the distance between the two points (3, 2) and (8, 14).
 - (b) a(-2, 2), b(4, 6) and c(0, -4) are three points.
 - p is the midpoint of [ab] and q is the midpoint of [ac].
 - (i) Find the co-ordinates of p and the co-ordinates of q.
 - (ii) Plot a, b, c, p and q on a co-ordinate diagram on graph paper.Show the line segments [bc] and [pq] on your diagram.
 - (iii) Using slopes, or otherwise, prove that pq is parallel to bc.
 - (c) *L* is the line 3x + 2y + 12 = 0. *K* is the line that passes through the point (7, 3) and is perpendicular to *L*. Find the equation of *K* and hence find the point of intersection of *K* and *L*.

