THE LINE (Q 2, PAPER 2)

2001

- 2 (a) The point (t, 2t) lies on the line 3x + 2y + 7 = 0. Find the value of *t*.
 - (b) a(4, 2), b(-2, 0) and c(0, 4) are three points.
 - (i) Prove that $ac \perp bc$.
 - (ii) Prove that |ac| = |bc|.
 - (iii) Calculate the area of the triangle bac.
 - (iv) The diagonals of the square *bahg* intersect at *c*.Find the co-ordinates of *h* and the co-ordinates of *g*.
 - (v) Find the equation of the line bc and show that h lies on this line.

Answers 2 (a) t = -1(b) (iii) 10 (iv) g(-4, 6), h(2, 8)(v) 2x - y + 4 = 0