THE LINE (Q 2, PAPER 2)

2006

- 2 (a) a(-2, 6) and b(4, 3) are two points.
 - (i) Plot *a* and *b* on a co-ordinate diagram.
 - (ii) From your diagram, write down the co-ordinates of the point at which the line *ab* cuts the *y*-axis.
 - (iii) Find the slope of *ab*.
 - (iv) Calculate the area of the triangle *abc*, where the co-ordinates of *c* are (1, -3).
 - (b) *L* is the line 3x + 2y + c = 0.
 - (i) (3, -1) is a point on *L*. Find the value of *c*.
 - (ii) The line *K* is parallel to *L* and passes through the point (-2, 5). Find the equation of *K*.
 - (iii) The lines *L* and *K*, together with the line x = 3 and the *y*-axis, form a parallelogram. Find the co-ordinates of the vertices of the parallelogram.

