

1. The line l_1 passes through the points $(6, -5)$ and $(2, 1)$

(a) Find the equation of l_1 giving your answer in the form $y = mx + c$ where m and c are constants to be found.

(3)

The line l_2 is perpendicular to l_1 and passes through the origin.

(b) Find the coordinates of the point of intersection of l_1 with l_2

(4)