Name: _____ 5-a-day Core 1

17th Jan

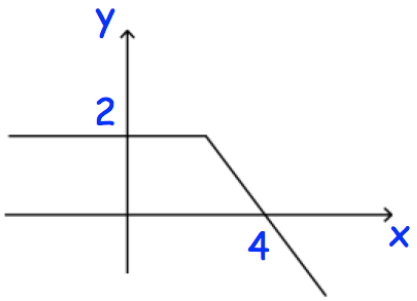
Corbettmaths

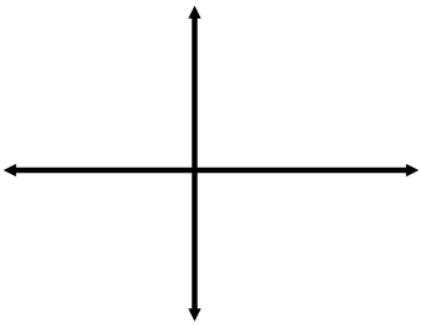
The straight line l_1 has equation
$3x + y - 1 = 0$
The straight line l_2 is perpendicular to line l_1 and passes through the point (8, 2)

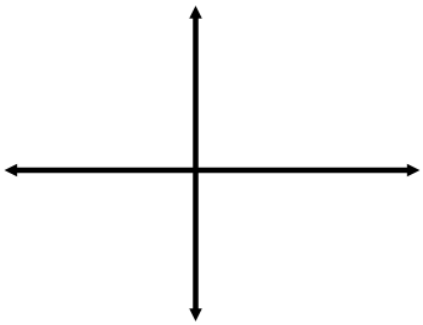
Find the equation of l_2 in the form
$y = mx + c$

Shown is the graph of the function
$y = f(x)$

Sketch
(a) $f(x + 1)$
(b) $f(-x)$







A quadratic with equation
$kx^2 + (k - 2)x + 2 = 0$ has no real roots.

Find the range of values of k.

Find the equation of the normal to the curve

$y = 2x^3 - 4x^2 + 5x + 1$

at the point where $x = 2$