


18th March	
Solve $3x^2 - x - 2 = 0$ $(3x + 2)(x - 1) = 0$ $x = -\frac{2}{3}$ or $x = 1$	 Corbettmaths
The transformation matrix M represents a 90° clockwise rotation about the origin. Write down matrix M	$\begin{pmatrix} 0 & 1 \\ -1 & 0 \end{pmatrix}$
Solve the simultaneous equations $2x + y = 7$ $y = 7 - 2x$ $x^2 - y^2 = 8$ $x^2 - (7 - 2x)^2 = 8$ $x^2 - (49 - 28x + 4x^2) = 8$ $-3x^2 + 28x - 49 = 8$ $0 = 3x^2 - 28x + 57$ $(3x - 19)(x - 3) = 0$ $x = \frac{19}{3}$ or $x = 3$	$x = 3, y = 1$ $x = \frac{19}{3}, y = -\frac{17}{3}$
A curve has equation $y = x^3(2 - x)$ Work out the equation of the tangent to the curve at the point $(2, 0)$ $y = 2x^3 - x^4$ $\frac{dy}{dx} = 6x^2 - 4x^3$	when $x = 2$ $\frac{dy}{dx} = 24 - 32 = -8$ $y = -8x + c$ $0 = -16 + c$ $c = 16$ $y = -8x + 16$