


1st April	
<p>A circle has centre (7, 2) and radius 5.</p> <p>Write down the equation of the circle</p> $(x-7)^2 + (y-2)^2 = 25$	 <p>Corbettmaths</p>
<p>$f(x) = x^2 - 8$ for all values of x</p> <p>$g(x) = 6 - 7x$ for all values of x</p>	<p>Work out the range of $f(x)$</p> $f(x) \geq -8$
<p>Solve $f(x) = 4g(x)$</p> <p>Give each answer to 1 decimal place.</p> $x^2 - 8 = 24 - 28x$ $x^2 + 28x - 32 = 0$ $a = 1 \quad b = 28 \quad c = -32$	$x = \frac{-28 \pm \sqrt{784 + 128}}{2}$ $x = \frac{-28 + \sqrt{912}}{2} \quad \text{or} \quad x = \frac{-28 - \sqrt{912}}{2}$ $x = 1.1 \quad \text{or} \quad x = -29.1$
<p>The unit square OABC is transformed by a reflection in the y-axis followed by enlargement scale factor 3, centre the origin.</p> <p>What is the matrix of the combined transformation?</p>	$\begin{pmatrix} 3 & 0 \\ 0 & 3 \end{pmatrix} \begin{pmatrix} -1 & 0 \\ 0 & 1 \end{pmatrix} = \begin{pmatrix} -3 & 0 \\ 0 & 3 \end{pmatrix}$