


17th April		 Corbettmaths
Simplify	$= \frac{8\sqrt{7}}{4\sqrt{7}} = 2$	
$\frac{\sqrt{700} - \sqrt{28}}{\sqrt{112}}$	$\frac{10\sqrt{7} - 2\sqrt{7}}{4\sqrt{7}}$	
Solve the simultaneous equations	$x^2 - x - 6 = 0$	
$x^2 + y^2 = 13$	$(x-3)(x+2) = 0$	
$y = 1 - x$	$x = 3$ or $x = -2$	
$x + y = 1$	$y = -2$ or $y = 3$	
$x^2 + (1-x)^2 = 13$		
$x^2 + 1 - 2x + x^2 = 13$		
$2x^2 - 2x - 12 = 0$		
AB is a diameter of a circle C. Q is the centre of the circle A has coordinates (-7, 1) and B has coordinates (1, 7)	Find the centre of the circle, Q.	
$\frac{-b}{2} = -3$	$(-3, 4)$	
$\frac{a}{2} = 4$	Find the equation of the tangent to C at the point B	
	$\frac{3}{4} \rightarrow -\frac{4}{3}$	
	$y = -\frac{4}{3}x + c$	
	$7 = -\frac{4}{3} + c$	
	$c = \frac{25}{3}$	
	$y = -\frac{4}{3}x + \frac{25}{3}$	
P is a point on the curve $y = x^2 - 7x$	$\frac{dy}{dx} = 2x - 7$	
$x = 4$ $y = -12$	$1 = 2x - 7$	
The tangent to the curve at P has gradient 1.	$2x = 8$	
Work out the coordinates of P.	$x = 4$ $y = -12$	
	$(4, -12)$	