

7	(a)	$(x - 7)^2 + (y + 3)^2 = 5^2 \cos^2 \theta + 5^2 \sin^2 \theta$ oe	M1	3.1a	allow sign error	
		use of $\cos^2 \theta + \sin^2 \theta = 1$ to eliminate θ	M1	1.1		
		<i>Alternative</i> centre is $(7, -3)$ and substituted in correct form of equation	M1			
		radius is 5 and substituted in correct form of equation	M1			
		$(x - 7)^2 + (y + 3)^2 = 5^2$ oe isw	A1	1.1	if M0M0 allow SC1 for $y = 5 \sin \left\{ \cos^{-1} \left(\frac{x - 7}{5} \right) \right\} - 3$ $x = 5 \cos \left\{ \sin^{-1} \left(\frac{y + 3}{5} \right) \right\} + 7$	
			[3]			
7	(b)	$(7, -3)$	B1	2.2a	FT their $(x - 7)^2 + (y + 3)^2 = 25$	
			[1]			