

Question		Answer	Mks	AO	Guidance					
8		<b>DR</b> $y - 1 = -2(x - 2)$ or $y = -2x + c$ & sub (2, 1)  $y = -2x + 5$ $c = 5$ Centre is (0, 5)  $r = \sqrt{2^2 + 4^2}$ $= \sqrt{20}$  $x^2 + (y - 5)^2 = 20$ oe  $x^2 + y^2 - 10y + 5 = 0$			<b>If no wking seen, no marks</b>					
					<b>M1</b>	<b>3.1a</b>	or $y - 1 = 2(x - (-2))$	Alt method using proportion: Centre is on y-axis, not (0, 1) (may be implied)      M1		
							or solve $y = -2x + 5$ & $y = 2x + 5$	$\frac{c-1}{2} = 2$ or $c = 1 + 2 \times 2$		
							<b>A1</b>	<b>1.1</b>	$y = 2x + 5$ or $c = 5$	$c = 5$ A1
							<b>A1</b>	<b>3.2a</b>	stated or implied	Centre is (0, 5)      A1
<b>M1</b>	<b>1.1a</b>	or $r^2 = 2^2 + 4^2$ or ft their centre  $= 20$								
<b>M1</b>	<b>1.2</b>	or $a = 0, b = -10, c = 5$ ft their centre and $\text{rad}^2 (\neq 0)$ , however found								
<b>A1</b>	<b>1.1</b>	cao								
			<b>[6]</b>							