

8			<b>M1</b>	<b>2.1</b>	Left side correct and $= r^2$	or line through centre which is perpendicular to L has equation
		$(x - -1)^2 + (y - 3)^2 = r^2$ $r^2 = (1 - -1)^2 + (-1 - 3)^2$	<b>M1</b>	<b>1.1</b>	Or find L first (B1B1), then find equation of line perp to L through	equation
		L: $m = -2$	<b>B1</b>	<b>1.1</b>	$(-1, 3)$ (M1M1) then substitute	$y - 3 = \frac{1}{2}(x - -1)$
		$y = -2x + 11$ oe	<b>B1</b>	<b>1.1</b>	(M1), solve (A1) then check (E1).	meets L at $(3, 5)$
		substitution of their $y = -2x + 11$ in their		<b>1.1</b>	soi	$(3 + 1)^2 + (5 - 3)^2 = r^2 = 20$ so
		$(x + 1)^2 + (y - 3)^2 = 20$	<b>M1</b>	<b>1.1</b>		lines meet at circumference of
		$x^2 - 6x + 9 = 0$ oe	<b>A1</b>	<b>1.1</b>		circle at
		$(x - 3)^2 = 0$ so repeated root			or $(-6)^2 - 4 \times 1 \times 9 = 0$	right angles so L is a tangent
		Hence line touches the curve and is a tangent	<b>E1</b>	<b>2.4</b>		
			<b>[7]</b>			