

Question			Answer	Marks	AO	Guidance	
3			$\left(\frac{2+3}{2}, \frac{-5+1}{2}\right)$	<b>M1*</b>	<b>2.1</b>	Attempt at the midpoint (3 out of 4 values used correctly <b>or</b> one correct coordinate)	If correct $\left(\frac{5}{2}, -2\right)$
			$d^2 = (2-3)^2 + (-5-1)^2$	<b>M1*</b>	<b>1.1</b>	Attempt to calculate diameter $d$ or radius $r$ (or the square of either of these two) e.g. $r^2 = \left(2 - \frac{5}{2}\right)^2 + \left(-5 - (-2)\right)^2$ <b>M0</b> if implying that $r^2 = (2-3)^2 + (-5-1)^2$ . If the value is not labelled (as either $r$ or $d$ ) then consider how this value is used in their circle equation	3 out of 4 values used correctly – if correct $d^2 = 37$ or $r^2 = \frac{37}{4}$
			$\left(x - \frac{5}{2}\right)^2 + (y+2)^2 = \frac{37}{4}$	<b>M1dep*</b>	<b>1.1</b>	Correct form for the equation of a circle with their values for the centre and radius	Dependent on both previous <b>M</b> marks
			$x^2 - 5x + \frac{25}{4} + y^2 + 4y + 4 = \frac{37}{4}$	<b>A1</b>	<b>2.2a</b>	Must have = 0 Order of terms on the lhs irrelevant	$a, b$ and $c$ need not be explicitly stated
			$x^2 + y^2 - 5x + 4y + 1 = 0$	<b>[4]</b>			