

Question		Answer	Marks	AOs	Guidance	
7		<p>Circle: equation is $(x - 2)^2 + (y + 1)^2 = 5^2$ oe</p> <p>Line: $m = \frac{1}{2}$</p> <p>$y - 5 = (\text{their } \frac{1}{2})(x - 9)$ oe</p> <p>Substitution of their $y = \frac{1}{2}(x + 1)$ in their attempt at equation of circle</p> <p>$5x^2 - 10x - 75 = 0$ oe</p> <p>$x = 5$ or $x = -3$</p> <p>$(5, 3)$ and $(-3, -1)$</p>	<p>M1</p> <p>A1</p> <p>B1</p> <p>M1</p> <p>M1</p> <p>A1</p> <p>A1</p> <p>A1</p> <p>[8]</p>	<p>1.1</p> <p>1.1</p> <p>1.1</p> <p>1.1a</p> <p>3.1a</p> <p>1.1</p> <p>1.1</p> <p>2.5</p>	<p>Allow sign error, reversed 1 and -2, 5 not squared.</p> <p>Or $y - 1 = (\text{their } \frac{1}{2})(x - 1)$</p> <p>Or their $x = 2y - 1$</p> <p>Or $5y^2 - 10y - 15 = 0$ oe</p> <p>Or $y = 3$ and $y = -1$</p> <p>If A0A0, sc1 for $(5, 3)$ or $(-3, -1)$ only</p>	<p>Sight of $y = \frac{1}{2}(x + 1)$</p> <p>$x^2 - 2x - 15 = 0$</p>