

Question	Answer	Marks	Guidance
(a)	$\left[ \frac{1}{x^2} = \right] \frac{4 \pm \sqrt{16-4}}{2} = 2 \pm \sqrt{3}$	<b>M1 A1</b>	OE. Answer must come from formula or completing square. If M0A0 scored then <b>SC B1</b> for $2 \pm \sqrt{3}$ only.
	$[x=](2 \pm \sqrt{3})^2$	<b>M1</b>	Attempt to square <i>their</i> $2 \pm \sqrt{3}$
	$7 + 4\sqrt{3}$ , $7 - 4\sqrt{3}$	<b>A1</b>	Accept $7 \pm 4\sqrt{3}$ or $a=7, b=\pm 4, c=3$ <b>SC B1</b> instead of second M1A1 for correct final answer only.
	<b>Alternative method for question 9(a)</b>		
	$-4x^{\frac{1}{2}} + 1 = 0$ leading to $(x+1)^2 = 16x$ leading to $x^2 - 14x + 1 = 0$	<b>*M1 A1</b>	OE
	$x = \frac{14 \pm \sqrt{196-4}}{2}$	<b>DM1</b>	Attempt to solve for $x$
	$7 + 4\sqrt{3}$ , $7 - 4\sqrt{3}$	<b>A1</b>	<b>SC B1</b> instead of second M1A1 for correct final answer only.
		<b>4</b>	
(b)	$[\text{gh}(x)=] m \left( x^{\frac{1}{2}} - 2 \right)^2 + n$	<b>M1</b>	SOI
	$[\text{gh}(x)=] m \left( x - 4x^{\frac{1}{2}} + 4 \right) + n \equiv x - 4x^{\frac{1}{2}} + 1$	<b>A1</b>	SOI
	$m=1, n=-3$	<b>A1 A1</b>	WWW
		<b>4</b>	