

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