

Question		Answer	Marks	AO	Guidance
7		<p>DR Points of intersection with x-axis when $-3x^2 + 7x - 2 = 0$ $x = \frac{1}{3}, 2$</p> <p>Area = $\int_{\frac{1}{3}}^2 (-3x^2 + 7x - 2) dx$ $= \left[-x^3 + \frac{7}{2}x^2 - 2x \right]_{\frac{1}{3}}^2$</p> <p>$\left(-8 + \frac{7 \times 4}{2} - 2 \times 2 \right) - \left(-\left(\frac{1}{3}\right)^3 + \frac{7}{2 \times 9} - \frac{2}{3} \right)$</p> <p>$= \frac{125}{54}$</p>	M1	3.1a	Attempt to find intersection with x -axis
			A1	1.1b	Both exact roots seen
			M1*	1.1a	Allow for indefinite integral also
			A1	1.1b	Correct indefinite integral
			M1 (dep)	1.1b	Substitution of their limits into their cubic expression must be seen
			A1	1.1b	must be exact. Allow mixed number $2\frac{17}{54}$ or recurring decimal $2.3\dot{1}4\dot{8}$ www
			[6]		