

Question	Answer	Marks	AOs	Guidance
6	$\int_a^b (x^3 - 5x^2 + 7x - 3) dx$ <p>$a = 1$ and $b = 3$</p> $F[x] = \frac{x^4}{4} - \frac{5x^3}{3} + \frac{7x^2}{2} - 3x$ <p>F [3] – F[1] evaluated</p> $= -\frac{4}{3} \text{ so required area is } \left -\frac{4}{3} \right = \frac{4}{3} \text{ AG}$	<p>M1</p> <p>A1</p> <p>B1</p> <p>M1</p> <p>M1</p> <p>A1</p> <p>[6]</p>	<p>2.1</p> <p>1.1</p> <p>2.2a</p> <p>1.1</p> <p>1.1</p> <p>2.4</p>	<p>All three brackets expanded. Allow sign errors and one coefficient error</p> <p>All correct</p> <p>integration of their expanded brackets; condone +c Allow sign errors and one coefficient error</p> <p>Subst seen, allow sign or num slip $\left[\frac{81}{4} - 45 + \frac{63}{2} - 9\right] - \left[\frac{1}{4} - \frac{5}{3} + \frac{7}{2} - 3\right]$</p> <p>Sign change must be seen; no reliance on decimals</p> <p>Must be 4 term cubic</p> <p>Later M marks both dep on first M1</p> $\left[-\frac{9}{4}\right] - \left[-\frac{11}{12}\right]$