Q	Marking instructions	AO	Marks	Typical solution
3(a)	Integrates with at least one term in x correct	1.1a	M1	$\frac{4x^3}{3} - 4x^2 + 3x + c$
	Obtains $\frac{4x^3}{3} - 4x^2 + 3x$ ACF	1.1b	A1	
	Integrates with at least two terms correct and includes $+ c$ FT their integral	1.1b	A1F	
	Subtotal		**3**	

Q	Marking instructions	AO	Marks	Typical solution
3(b)	Substitutes at least one of the limits 2 or 5 into their integrated expression from part **(a)** and subtracts either way round PI by one of $81\frac{2}{3} or \frac{2}{3}$ subtracted OE	1.1a	M1	$\left(\frac{4(5)^3}{3} - 4(5)^2 + 3(5)\right)$ $-\left(\frac{4(2)^3}{3} - 4(2)^2 + 3(2)\right)$ $= 81$
	Obtains 81 AG Do not allow any rounding which obtains 81 CSO	2.1	R1	
	Subtotal		**2**	

	Question 3 Total		**5**	