Q	Marking instructions	AO	Marks	Typical solution
3(a)	Integrates with at least one term in x correct	1.1a	M1	
	Obtains correct integral Condone omission of $+c$ Condone inclusion of integral sign ACF	1.1b	A1	$\frac{1}{2}x^4 - \frac{8}{x} + c$
	Includes $+ c$ FT their integral Must be some evidence of integration e.g., a power increased by 1	1.1b	B1F	
	Subtotal		**3**	

Q	Marking instructions	AO	Marks	Typical solution
3(b)	Substitutes $x = 2$ and $y = 0$ into their integral from part **(a)** to find a value of c PI by their correct value of c	1.1a	M1	$0 = \frac{1}{2}2^4 - \frac{8}{2} + c$
	Finds correct value of c for their equation and states equation FT their integral from (a) but must have + c	1.1b	A1F	$c = -4$ $y = \frac{1}{2}x^4 - \frac{8}{x} - 4$
	Subtotal		**2**	

	Question 3 Total		**5**	