

Q	Marking instructions	AO	Marks	Typical solution
5	Differentiates x^3 and $\sin x$ to obtain $3x^2$ and $\cos x$ OE	1.1b	B1	$\frac{dy}{dx} = \frac{3x^2 \sin x - x^3 \cos x}{\sin^2 x}$
	Uses the quotient rule and obtains numerator $Ax^2 \sin x \pm Bx^3 \cos x$ Condones any denominator Or Writes as a product and applies the product rule to obtain $Ax^2 \operatorname{cosec}(x) \pm x^3 \operatorname{cosec}(x) \cot(x)$	3.1a	M1	
	Obtains $\frac{3x^2 \sin x - x^3 \cos x}{\sin^2 x}$ ACF No ISW	1.1b	A1	
	Question 5 Total		3	