

Q	Marking instructions	AO	Marks	Typical solution
8	Replaces $\sin 5x$ with $5x$ Or Replaces $\tan x$ with x In $\frac{4 + \sin 5x - 3 \cos 2x}{1 + 2 \tan x}$	1.1a	M1	$\frac{4 + 5x - 3 \left(1 - \frac{(2x)^2}{2} \right)}{1 + 2x}$ $= \frac{4 + 5x - 3(1 - 2x^2)}{1 + 2x}$ $= \frac{6x^2 + 5x + 1}{1 + 2x}$ $= \frac{(2x + 1)(3x + 1)}{1 + 2x}$ $= 3x + 1$ $\therefore y = 3x + 1$
	Obtains $3 \left(1 - \frac{(2x)^2}{2} \right)$ Condone $3 \left(1 - \frac{2x^2}{2} \right)$	1.1a	M1	
	Obtains $\frac{4 + 5x - 3 \left(1 - \frac{(2x)^2}{2} \right)}{1 + 2x}$ OE	1.1b	A1	
	Uses a valid method to simplify their fraction to a linear form. May see evidence of factorising, algebraic division or comparing coefficients.	3.1a	M1	
	Completes a reasoned argument to obtain $y = 3x + 1$	2.1	R1	
Question 8 Total			5	