Question Number	Scheme	Notes	Marks
1(a)	$\frac{\mathrm{d}y}{\mathrm{d}x} = 3\arcsin 2x + 3x\frac{1}{\sqrt{1-(2x)^2}}\times 2$ $\left(= 3\arcsin 2x + \frac{6x}{\sqrt{1-4x^2}}\right)$	M1: Obtains $p\arcsin qx + \frac{rx}{\sqrt{1-(sx)^2}}$ **or** $p\arcsin qx + \frac{rx}{\sqrt{1-tx^2}}$ $p, q, r, s, t > 0$ A1: Correct derivative. Allow unsimplified and isw. Allow $\sin^{-1}$ and condone "arsin" but "arsinh" or "arcsinh" is M0	M1 A1
(b)	$x = \frac{1}{4} \Rightarrow \frac{\mathrm{d}y}{\mathrm{d}x} = \frac{\pi}{2} + \sqrt{3}$	$\frac{\pi}{2} + \sqrt{3}$ only but allow $\frac{1}{2}\pi$ or 0.5π. Terms as a sum in either order. Allow $a = \frac{1}{2}$, $b = \sqrt{3}$ Isw following a correct answer.	B1**dep**
	This is a "Hence" question so this mark can only be awarded following full marks in part (a)		
			Total 3