Question	Answer	Marks	Partial Marks
6	$\frac{dy}{dx} = 10e^{2x}$	**B1**	
	[At A, m =] 10	**B1**	
	[At A, y =] 2	**B1**	
	[Equation tangent is] $y = 10x + 2$ oe	**B1**	
	$AB^2 = \left(\frac{-their2}{their10}\right)^2 + (their\,2)^2$ oe	**M1**	providing *their* 10 is derived using differentiation
	[AB =] 2.01 or 2.009[9…] nfww, isw	**A1**	
7	$\frac{d(4x^3 + 2\sin 8x)}{dx} = 12x^2 + 16\cos 8x$ soi	**B2**	**B1** for $12x^2 + k\cos 8x$, where $k > 0$
	Correct quotient rule: $\frac{(1-x)\left(their\left(12x^2 + 16\cos 8x\right)\right) - (4x^3 + 2\sin 8x)(-1)}{(1-x)^2}$	**M1**	or applies correct product rule to $(4x^3 + 2\sin 8x)(1-x)^{-1}$: $(4x^3 + 2\sin 8x)\left(-(1-x)^{-2} \times -1\right) +$ $\left(their(12x^2 + 16\cos 8x)\right)(1-x)^{-1}$
	Fully correct derivative; isw	**A1**	**FT** *their* $12x^2 + 16\cos 8x$
	$\frac{\delta y}{h} = their\left(\left.\frac{dy}{dx}\right\|_{x=0.1}\right)$	**M1**	
	14.3h or 14.29[54...]h with coefficient rot to 4 or more figs isw	**A1**	
8(a)(i)	$f \leqslant -1$	**1**	