Q	Marking Instructions	AO	Marks	Typical Solution
9	States the correct gradient of the curve	AO1.2	B1	Grad of curve $= 2e^{2x}$
	Forms an equation using 'their' gradient of the curve and puts it equal to $\frac{1}{2}$	AO1.1a	M1	$=$ grad of tangent so $2e^{2x} = \frac{1}{2}$
	Takes a log of each side of 'their' equation and uses law of logs to obtain equation in x	AO1.1a	M1	$e^{2x} = \frac{1}{4} \Rightarrow 2x = \ln\left(\frac{1}{4}\right)$
	Obtains a correct exact value for x	AO1.1b	A1	$\Rightarrow x = \frac{1}{2}\ln\left(\frac{1}{4}\right) = \ln\left(\frac{1}{2}\right) = -\ln 2$
	Substitutes 'their' value of x and obtains y value and hence the coordinates (follow through provided values are exact)	AO1.1b	A1F	$y = e^{2x} = \frac{1}{4}$ $\left(-\ln 2, \frac{1}{4}\right)$
	Total		**5**	