Question	Answer	Marks	Guidance
7(a)	$\frac{e^{1-3x}(\cos x-\sin x)-(\sin x+\cos x)\times(-3)e^{1-3x}}{(e^{1-3x})^2}$	**4**	**B1** for $-3e^{1-3x}$ **B1** for $\cos x-\sin x$ **M1** for differentiation of quotient or equivalent correct product **A1 FT** on *their* $-3e^{1-3x}$ and *their* $\cos x-\sin x$
7(b)	$\int\left(\sec^2 3x\right)dx$	**M1**	Use of $\sec^2 3x=1+\tan^2 3x$
	$\frac{1}{3}\tan 3x+c$ oe	**2**	**A1** if + *c* omitted
8	$(1-6y)^2-8y^2=-2y+12y^2$ oe	**M1**	Equation in one variable only, in any form. Allow one arithmetical error
	$16y^2-10y+1[=0]$	**A1**	
	$(2y-1)(8y-1)$ [= 0]	**M1**	Attempt to factorise or use formula for *their* 3-term quadratic
	$y=\frac{1}{2}$, $x=-2$ $y=\frac{1}{8}$, $x=\frac{1}{4}$	**2**	Correct pairs seen or implied **A1** for any two correct values
9(a)	As *v*–*t* graph but negative portion reflected in *x*-axis	**B1**	
9(b)	Straight line with positive gradient	**B1**	
	Straight line starting at *O*	**B1**	

© Cambridge University Press & Assessment 2025