6			**DR**	**M1**	**2.1**	**M1** for $k(2x+9)^{\frac{3}{2}}$ with non-zero k	$k \neq 1$
			$\int (2x+9)^{\frac{1}{2}}\,dx = \frac{1}{3}(2x+9)^{\frac{3}{2}}$	**A1**	**1.1**	cao (allow unsimplified)	
			$\left[\frac{(2x+9)^{\frac{3}{2}}}{3}\right]_{-\frac{9}{2}}^{0} = 9$	**A1**	**1.1**	Uses correct limits (or implies correct limits) to get 9. Condone limits the wrong way round leading to -9 but must be changed to +9	
			$4e^{-2x} - 1 = 0 \Rightarrow e^{-2x} = \frac{1}{4}$ $-2x = \ln\left(\frac{1}{4}\right)$	**M1***	**3.1a**	Attempt to solve $4e^{-2x} - 1 = 0$ by correctly taking logs of both sides leading to $\pm 2x = \pm \ln \alpha$ where $\alpha > 0$	Allow sign errors and other minor slips only
			$x = -\frac{1}{2}\ln\left(\frac{1}{4}\right)$	**A1**	**1.1**	Or equivalent exact value (soi possibly by correct exact value used later)	e.g. $\frac{1}{2}\ln 4$ or $\ln 2$
			$\int \left(4e^{-2x} - 1\right)dx = -2e^{-2x} - x$	**M1***	**1.1**	Integrate $4e^{-2x} - 1$ to obtain $ce^{-2x} \pm x$	Where c is non-zero and $c \neq 4$
			$\int_0^{\frac{1}{2}\ln 4} \left(4e^{-2x} - 1\right)dx = \left(-2e^{-\ln 4} - \frac{1}{2}\ln 4\right) - (-2)$	**M1dep***	**1.1**	Uses limits correctly $F(\frac{1}{2}\ln 4) - F(0)$ (with their $\frac{1}{2}\ln 4$) – **dependent on the previous two M marks** (allow non-exact top limit). Condone limits the wrong way round only if the sign of their answer is subsequently changed	If zero limit is assumed to give 0 (with no working) then **M0**
			Area $= 9 + \frac{3}{2} - \frac{1}{2}\ln 4 = \frac{21}{2} - \frac{1}{2}\ln 4 = \frac{21}{2} - \ln 2$	**A1**	**2.2a**	**If the values of the integral(s) are changed from negative to positive (e.g. from limits the wrong way round) with no justification given then A0**	p and q need not be explicitly stated. $p = \frac{21}{2}$ (oe) and $q = -1$
				[8]			