Question	Answer	Marks	AO		Guidance	
7	$(2x-1)^3\dfrac{dy}{dx}+4y^2=0$					
	$-\dfrac{1}{4}\int\dfrac{dy}{y^2}=\int\dfrac{dx}{(2x-1)^3}$	**M1**	**2.5**	E	Attempt to separate variables	
	$\int\dfrac{dy}{y^2}=-\dfrac{1}{y}$	**A1**	**1.1**	E		
	$\int\dfrac{dx}{(2x-1)^3}=\dfrac{(2x-1)^{-2}}{(2)(-2)}$	**M1** **A1**	**1.1** **1.1**	E C	M1 for $k(2x-1)^{-2}$	
	$\dfrac{1}{4y}=-\dfrac{1}{4(2x-1)^2}+c,\ (1,1)\Rightarrow c=...$	**M1**	**2.1**	C	Use of (1, 1) to find c – dependent on the previous two M marks and substituted into correct form	
	$\dfrac{1}{y}=-\dfrac{1}{(2x-1)^2}+2$	**A1**	**2.2a**	A	Oe	
	$\dfrac{1}{y}=\dfrac{2(2x-1)^2-1}{(2x-1)^2}$	**M1**	**3.1a**	A	Correct method for combining both terms on rhs (dependent on previous M mark) before taking the reciprocal	Or re-write in terms of y
	$y=\dfrac{(2x-1)^2}{2(2x-1)^2-1}$	**M1**	**1.1**	A	Taking the reciprocal (dependent on previous M marks) and making y the subject	Remove triple-decker fractions
	$y=\dfrac{4x^2-4x+1}{8x^2-8x+1}$	**A1**	**2.2a**	A	$a=4, b=8$	
		[9]				