Question	Answer	Marks	Guidance
7	$6\left(x^{\frac{1}{3}}\right)^2 - x^{\frac{1}{3}} - 2 = 0$ or $6m^2 - m - 2 = 0$ where $m = x^{\frac{1}{3}}$ oe	**B1**	
	$x^{\frac{1}{3}} = \frac{2}{3},\ x^{\frac{1}{3}} = -\frac{1}{2}$ oe	**M1**	For attempt to solve 3-term quadratic equation in the form $6m^2 \pm m \pm 2 = 0$ and obtain $x^{\frac{1}{3}}$ =.... or $m = ...$ from correct work only
	$x = \frac{8}{27},\ x = -\frac{1}{8}$	**2**	**Dep M1** for dealing with the power of $\frac{1}{3}$ correctly at least once. **A1** for both
8	$(2x)^2 = 256x^{16}$ soi $n = 8$	**B1**	
	$\binom{8}{1}(2x^2)^7 \times \left(-\frac{1}{4x}\right) = ax^{13}$ oe leading to $a = -256$	**2**	**M1** for attempt at 2nd term with *their n* to find *a*, need to see one step to evaluate. Allow a sign error in simplifying but not missing in $-\frac{1}{4x}$
	$\binom{8}{2}(2x^2)^6\left(-\frac{1}{4x}\right)^2 = bx^c$ leading to $b = 112$	**2**	**M1** for attempt at 3rd term with *their n* to find *b*, need to see one step to evaluate. Allow a sign error but not missing in $\left(-\frac{1}{4x}\right)^2$
	$c = 10$	**B1**	Can be seen by observation.

Question	Answer	Marks	Guidance
9	$\left[\frac{dy}{dx} =\right] \frac{\frac{5}{3}(5x+2)^{-\frac{2}{3}} \times (x-1)^2 - 2(5x+2)^{\frac{1}{3}}(x-1)}{(x-1)^4}$ or $\left[\frac{dy}{dx} =\right] = \frac{5}{3}(5x+2)^{-\frac{2}{3}} \times (x-1)^{-2} + (5x+2)^{\frac{1}{3}} \times -2 \times (x-1)^{-3}$	**3**	**B1** for $\frac{5}{3}(5x+2)^{-\frac{2}{3}}$ **M1** for attempt at differentiation of a quotient or product. **A1** all other terms correct.
	$\frac{(5x+2)^{-\frac{2}{3}}}{3(x-1)^3}(5x-5-30x-12)$	**M1**	**Dep M1** for attempt to simplify by factorising $(5x+2)^{-\frac{2}{3}}$ or $(x-1)$ **nfww to the given form**, allow one arithmetic slip and/or one sign slip.
	$\frac{-(25x+17)}{3(x-1)^3(5x+2)^{\frac{2}{3}}}$	**A1**	Must be in correct form.