Question			Answer	Marks	AO	Guidance
3	(a)			M1	3.1a	Attempt to expand brackets, with at least one term correctly expressed in the form x^p.
			$(y=)\ 2x^{\frac{5}{2}} - 4x^{\frac{3}{2}}$	A1	1.1	
				M1	1.1	Attempt to differentiate expanded expression. Must be two terms with at least one of **their** terms correctly differentiated.
			$\left(\frac{dy}{dx}=\right)\ 5x^{\frac{3}{2}} - 6x^{\frac{1}{2}}$	A1	1.1	cao oe Correct final answer www implies full marks.
			Alternative method	M1		Using the correct product rule (using it twice if required for their working).
			eg $\left(\frac{dy}{dx}=\right)\ 2.\frac{3}{2}x^{\frac{1}{2}}(x-2) + 2x^{\frac{3}{2}}$	A1		
			or $2x.x^{\frac{1}{2}} + \left(2x^{\frac{1}{2}} + 2.\frac{1}{2}x.x^{-\frac{1}{2}}\right)(x-2)$			
				M1		Attempt to expand brackets and collect like terms.
			$\left(\frac{dy}{dx}=\right)\ 5x^{\frac{3}{2}} - 6x^{\frac{1}{2}}$	A1		cao oe Correct final answer www implies full marks.
				[4]		
3	(b)		(at $x=4, \frac{dy}{dx}=$) 28	B1FT	1.1	Either correct derivative at $x=4$ (possibly BC), or follow through their expression from part **(a)**. Implied by correct equation.
			$y-32=28(x-4)$	M1	1.1	For $y-32=m(x-4)$ or $32=m(4)+c$ with m as their evaluated $\frac{dy}{dx}$ at $=4$. c must be evaluated to gain **M1**. **M0** if using normal gradient. Implied by correct equation.
			$28x-y-80=0$	A1	1.1	Condone answers not written in this form, but must be simplified.
				[3]		