Question			Answer	Marks	AO	Guidance	
11	(a)		$[y =] 1 + 3\log_{10} x$	B1 B1 [2]	1.1 1.1	One term correct Fully correct	Accept $\log x$ instead of $\log_{10} x$ throughout question **11**
	(b)		At P, $0 = 1 + 3\log_{10} x$ $\log_{10} x = -\frac{1}{3}$ giving $x = 10^{-\frac{1}{3}}$ $x = 0.464$ to 3 s.f.	M1 M1 A1	2.1 1.1 1.1	Uses $y = 0$ in their equation (a) Rearranging to remove the 'log' from their equation 0.46415 ... Accept answers to at least 3 s.f. seen	
			Alternative method $0 = \log(10x^3)$ $10x^3 = 1$ giving $x = \sqrt[3]{\frac{1}{10}}$ $x = 0.464$ to 3 s.f.	 M1 M1 A1		 Uses $y = 0$ in the original equation Rearranging to remove the 'log' from their equation 0.46415 ... Accept answers given to at least 3 s.f.	
				[3]			