Question	Answer	Marks	AO	Guidance	
5	$32 = 16a + 2b$	B1	3.1a	Use $x = 4$, $y = 32$ to obtain a correct equation, possibly unsimplified May be in terms of just a or just b if the derivative has already been substituted in	Seen anywhere in solution Allow for unsimplified equation, even if error then occurs
	$\frac{dy}{dx} = 2ax + \frac{1}{2}bx^{-\frac{1}{2}}$	M1	1.1a	Attempt differentiation	To obtain derivative of the form $px + qx^{-0.5}$
		A1	1.1	Obtain correct derivative, possibly unsimplified	
	$22 = 8a + \frac{1}{4}b$	M1	3.1a	Use $x = 4$, $\frac{dy}{dx} = 22$ in their derivative	Not dependent on previous **M1** but must clearly be using an attempt at differentiation ie at least one power reduced by 1
		A1	1.1	Obtain correct equation, possibly unsimplified	Allow **BOD** if $\sqrt{4}$ initially becomes ± 2, resulting in a second incorrect equation
	$a = 3$, $b = -8$	A1	1.1	Obtain correct values for a and b www	Possibly **BC**, so no method needed when solving the simultaneous equations **A0** if there is a second set of values for a and b, from $\sqrt{4}$ being ± 2
		[6]			