Question			Answer	Marks	AO	Guidance
12	(a)		$\mathbf{r} = \int \left(3\mathbf{i} + (6t^2 - 5)\mathbf{j}\right) \mathrm{d}t$	M1	1.1a	Attempt to integrate velocity either as a vector or 2 separate components
			$= 3t\mathbf{i} + (2t^3 - 5t)\mathbf{j} + \mathbf{c}$	A1	1.1b	Condone missing constant
			When $t = 0, \mathbf{r}_0 = 0\mathbf{i} + 7\mathbf{j}$	M1	1.1a	Either as a vector constant or 2 separate components evaluated. May be implied by correct vector answer
			So position is $= 3t\mathbf{i} + (2t^3 - 5t + 7)\mathbf{j}$	A1	2.5	Must be in vector form (could be column vector but must be exact vector notation eg brackets and not **i** and **j** as well) Allow $3t\mathbf{i} + (2t^3 - 5t)\mathbf{j} + 7\mathbf{j}$
				[4]		
12	(b)		Using $x = 3t$ and $y = 2t^3 - 5t + 7$	M1	3.1a	Attempt to eliminate t from the parametric equations
			We get $y = 2\left(\frac{x}{3}\right)^3 - 5\left(\frac{x}{3}\right) + 7$	A1	1.1	FT their (a) Isw
				[2]		