Question		Scheme	Marks	AOs
3(a)		Differentiate v wrt t	M1	3.1a
		$6t^{\frac{1}{2}} - 6t$ (m s^{-2})	A1	1.1b
			(2)	
3(b)		Integrate v wrt t	M1	3.1a
		$6t + \dfrac{8}{5}t^{\frac{5}{2}} - t^3$ $(+ C)$	A1	1.1b
		$6t^{\frac{1}{2}} - 6t = 0$ and attempt to solve	M1	1.1b
		$t = 1$	A1	1.1b
		Substitute their t value into their s expression	M1	1.1b
		$\dfrac{33}{5}$ oe (m)	A1	1.1b
			(6)	
			(8 marks)	

Notes:

3a	M1	Both powers decreasing by 1
	A1	Correct unsimplified expression
3b	M1	At least two powers increasing by 1
	A1	Correct unsimplified expression
	M1	Equate their acceleration to zero (must have differentiated) and solve for t
	A1	cao
	M1	Must have integrated and equated acceleration to zero
	A1	cao