Question Number	Scheme	Marks
5.	(a) $v^2 = u^2 + 2as \Rightarrow 28^2 = u^2 + 2\times 9.8\times 17.5$	M1 A1
	Leading to $u = 21$ ✱ cso	A1 **(3)**
	(b) $s = ut + \frac{1}{2}at^2 \Rightarrow 19 = 21t - 4.9t^2$	M1 A1
	$4.9t^2 - 21t + 19 = 0$	
	$t = \frac{21 \pm \sqrt{21^2 - 4x4.9.x19}}{9.8}$	
	t = 2.99 or 3.0	DM1 A1 A1
	t = 1.30 or 1.3	**(5)**
	(c) N2L $4g - 5000 = 4a$	M1 A1
	$(a = -1240.2)$	
	$v^2 = u^2 + 2as \Rightarrow 0^2 = 28^2 - 2\times 1240.2\times s$	
	Leading to $s = 0.316$ (m) or 0.32	M1 A1 **(4)**
		[12]
	OR	
	$\frac{1}{2}$ x 4 x $28^2 + 4gs = 5000s$	M1 A1
	Work-Energy: $s = 0.316$ or 0.32	M1 A1