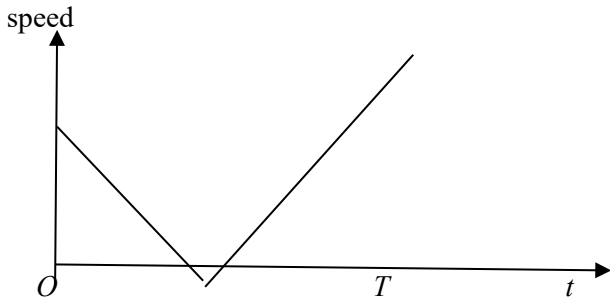


Question Number	Scheme	Marks
4(a)	$0^2 = u^2 - 2 \times g \times 19.6$	M1 A1
	$-24.5 = uT - \frac{1}{2}gT^2$	M1 A1
	Produce an equation in T only and solve for T	DM1
	$T = 5$	A1
		(6)
4(b)		B1 Shape DB1 Second line longer than the first, approx. equal angles and T or their answer for T marked
		(2)
		(8)
	Notes for question 4	
4(a)	M1 Attempt at a relevant <i>suvat</i> equation which uses $s = 19.6$ (or -19.6), with correct no. of terms but condone sign errors.	
	A1 A correct equation (g does not need to be substituted)	
	M1 Attempt at another relevant <i>suvat</i> equation which uses 24.5 or 44.1 e.g. finding time from B to the ground, with correct no. of terms but condone sign errors,	
	A1 A correct equation (neither u nor g need to be substituted)	
	DM1 dependent on both M marks, for finding an equation in T only and solving for T i.e. for a complete method to find T N.B. This mark cannot be awarded if their equation has NO solutions.	
	A1 $T = 5$ N.B. If $g = 9.8$ has not been used, A0	
4(b)	B1 A V-shape (<i>and nothing else</i>) starting on the speed axis, with point on the t -axis	
	DB1 Dependent on the first B1, for approximately equal angles between the 2 lines and the t -axis, second line longer than the first, T or their T marked correctly. B0 if clearly unequal angles. N.B. If graph reflected, B0 DB0.	