Question	Answer	Marks	Guidance
(a)	$0 = u^2 - 2 \times 10 \times 20$ OR $0 = u - 10t$ and $20 = vt + \frac{1}{2} \times 10 \times t^2$ or $20 = ut - \frac{1}{2} \times 10 \times t^2$ or $20 = \frac{u+0}{2} \times t$	**M1**	Complete method to set up an equation in u only. Use of $v^2 = u^2 + 2as$ or finding time to reach maximum height ($t = 2$) and using this value to set up another equation in u only.
	$u = 20$	**A1**	
		2	
(b)	$15 = 20t - \frac{1}{2} \times 10 \times t^2$	**M1**	Use of $s = ut + \frac{1}{2}at^2$ and attempt to set up an equation from which a relevant t value can be found. Must be using *their* u and $a = -10$
	$t = 1$ **or** $t = 3$	**A1**	
	Total time = 2 s	**A1**	CWO
	Alternative method for question (b)		
	$5 = \frac{1}{2} \times 10 \times t^2$	**M1**	Use of $s = ut + \frac{1}{2}at^2$ and attempt to set up an equation from which a relevant t value can be found. Must be using $u = 0$ and $a = 10$
	$t = 1$	**A1**	
	Total time = 2 s	**A1**	CWO
		3	