Question Number	Scheme	Marks
3(a)	$v^2 = 25^2 - 2\times 6\times 48$	M1
	$v = 7\,(\text{m s}^{-1})$	A1
		(2)
3(b)	$\frac{25-13}{6}$ (2)	M1
	$13^2 = 25^2 - 2\times 6s$ **OR** $25\times 2 - \frac{1}{2}\times 6\times 2^2$ **OR** $\frac{(25+13)}{2}\times 2$ **OR** $13\times 2 - \frac{1}{2}\times(-6)\times 2^2$ ($(s =)$ 38)	M1
	Total time = $\frac{(48-38)}{13}$ + 2	DM1
	$\frac{36}{13} = 2\frac{10}{13}$ (s) (2.76923…)	A1
		(4)
3(c)	$\frac{25-13}{6}$ (2) (could be implied by 2.2)	M1
	$(0.2\times 25) + (25\times 2 - \frac{1}{2}\times 6\times 2^2)$ (5 + 38)	M1
	Total time = $\frac{48-[(0.2\times 25)+38]}{13}$ + 0.2 + 2	DM1
	$\frac{168}{65} = 2\frac{38}{65}$ (s) (2.58461538..)	A1
		(4)
		(10)
	Notes for question 3	
3(a)	M1 Complete method to find v (condone sign errors)	
	A1 cao	
3(b)	M1 Complete method to find time to reach 13 m s^{-1}	
	M1 Complete method to find distance travelled in reaching 13 m s^{-1} ft on their 2 if necessary	
	DM1 Dependent on previous two M marks, Complete method to find the total time, ft on their 2 and 38	
	A1 Correct answer. Allow 2.8 or better	
3(c)	M1 Complete method to find the time taken to reach 13 m s^{-1} once it starts decelerating	
	M1 Complete method to find total distance travelled in reaching 13 m s^{-1} ft on their 2 if necessary	
	DM1 Dependent on previous two M marks, Complete method to find the total time, ft on their 2 and 38	
	A1 Correct answer. Allow 2.6 or better	