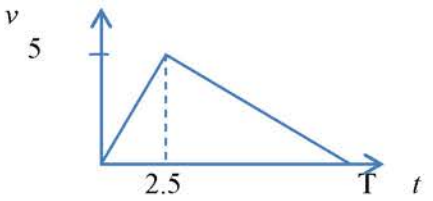
7			EITHER acceleration phase				
			$v = 0 + 2.5 \times 2 = 5$ m s^{-1}	**M1** **A1**	**3.1b** **1.1b**	Use of *suvat* equation(s) to find velocity. Do not allow if $s = 10$ used	Must recognise two phases of motion for first 4 marks
			slowing phase $v^2 = u^2 + 2as$	**M1**	**3.1b**	Use of *suvat* equation(s) with $s = 10$ to find acceleration	
			$0 = 5^2 + 2a \times 10$ $a = -1.25$ m s^{-2}	**A1**	**1.1b**	FT their velocity. Must be correct sign.	
			$[-R] = 1.5 \times (-1.25) = -1.875$	**M1**	**1.1a**	Use of Newton's second law.	Consistent sign convention needed for full credit.
			Magnitude of $R = 1.875$ N (1.88 to 3sf)	**A1** **[6]**	**1.1b**	FT their a $a \neq 2$ Must be positive	

Question	Answer	Marks	AOs		Guidance
	OR acceleration phase $v = 0 + 2.5 \times 2 = 5$ m s^{-1}	M1 A1		Use of *suvat* equation(s) to find velocity. Do not allow if $s = 10$ used	Must recognise two phases of motion for first 4 marks
		M1 A1		Use of area and *suvat* equation(s) to find acceleration Must be correct sign	
	using the distance to find the time it takes to stop *using areas* (second triangle): $\frac{1}{2}(T - 2.5) \times 5 = 10$ $T = 6.5$ so time to stop is 4 s. So $0 = 5 + 4a$ Giving $a = -1.25$ m s^{-2}				Consistent sign convention needed for full credit.
	$[-R] = 1.5 \times (-1.25) = -1.875$ Magnitude of R = 1.875 N (1.88 to 3sf)	M1 A1 [6]		Use of Newton's second law. FT their a $a \neq 2$ Must be positive	