Question Number	Scheme	Marks
5(a)	$R - 60g = 60 \times 2$	M1A1
	$R = 708$ N or 710 N (must be positive)	A1 (3)
5(b)	$75n$	B1
	$10000 - Mg - 100 = M \times 3$	M1A2
	using $M = 250 + 75n \implies n = 6.9..$	**DM1**A1
	so 6 people	A1**ft** (7)
		(10)
	Notes for Qu 5	
	5(a) M1 for equation in R only, with usual rules First A1 for a correct equation Second A1 for 710 or 708 (N not needed)	
	5(b) B1 for $75n$ oe seen or implied First M1 for an equation in one unknown in the form $10000 - Mg - 100 = M \times a$ with usual rules (must be using 10000) where M can be any (relevant) number e.g. 250, 75, etc First A1 and second A1 for a correct equation with $a = 3$, A1A0 if one error (e.g. Use of $a = 2$ loses 1 A mark) Second **DM1**, dependent on first M1, for using $M = 250 + 75n$ and solving for n Third A1 for 6.9… (A0 for 7) Fourth A1**ft** for no. of people, ft on their n value (A0 for < 7) **N.B.** If no incorrect work seen, the third A mark can be implied by a correct answer ($n = 6$) **SC:** They may use <u>Trial and Error</u> to find the critical value of n, by writing down equations for the tension when $n = 1, 2, 3, \ldots$ until the tension exceeds 10000 oe This method can score the final DM1 A1 A1 if done fully correctly up to and including $n = 7$, with a correct answer given. It could also score some or all of the first 4 marks.	