Question number			Answer	Notes	Marks
8	(a)	(i)	(unbalanced) force = mass × acceleration;	allow in standard symbols and rearrangements e.g. F = m × a	1
		(ii)	substitution; evaluation;	-1 for POT error e.g. changing kg to g	2
			e.g. (F =) 7.9 × 0.87 (F =) 6.9 (N)	allow 7, 6.87, 6.873 (N)	
		(iii)	to oppose its movement / to the left;	allow backwards	1
		(iv)	any two from: **between** {wheels / trolley} and bench; **between** string and pulley; drag/air resistance (on the front of trolley / falling mass); the axle(s) (of the trolley / pulley);	allow table/floor/ground for bench allow tyres for wheels	2
	(b)	(i)	GPE = mass x g x height;	allow in standard symbols and rearrangements e.g. GPE = m × g × h reject 'gravity' for g	1
		(ii)	substitution; evaluation;	allow g = 9.8 / 9.81 (N/kg) -1 for POT error e.g. changing kg to g	2
			e.g. (GPE =) 5 × 10 × 0.65 (GPE =) 33 (J)	allow 31.85, 31.89, 31.9, 32, 32.5 (J)	
		(iii)	33 (J) / same answer as in (b)(ii);		1

Total for question 8 = 10 marks