

Question number	Answer	Notes	Marks
11 (a)	9100 (N)		1
(b) (i)	$F = m \times a;$	accept standard symbols or in words or rearranged	1
(ii)	substitution and rearrangement; evaluation; e.g. (a =) 400/910 (a =) 0.44	-1 for POT error allow 0.4, 0.43956044 0.43 gains 1 mark only	2
(c)	any three from: MP1. speed increases; MP2. so drag {starts to act / increases}; MP3. downward forces increase; MP4. (hence) acceleration decreases;	ignore references to the initial acceleration award 1 mark for mention of terminal velocity if no other mark awarded allow air resistance / friction increases allow unbalanced force decreases	3
(d)	acceleration increases; with any one from: <ul style="list-style-type: none"> • weight decreases / downward force reduces; • unbalanced force increases; • mass decreases; 	total marks = 9	2