

Q1. (2018)

a)

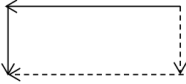
07.1	constant velocity	allow constant speed ignore references to stationary	1	AO1 6.5.4.2.1
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b)

07.2		allow drag for force B		AO1 6.5.4.2.1
	the man will accelerate		1	
	so force B increases		1	
	until force B equals force A	allow until resultant force is 0 (N)	1	
	the man moves at a higher constant velocity		1	

Q2. (2018)

a)

07.3	horizontal arrow pointing left (3000 N) and vertical arrow pointing down (1000 N) drawn to the same scale		1	AO2 6.5.1.4
	resultant force with a value in the range 3100 N–3200 N	allow and answer of 3000 N if a scale diagram has been drawn using the cm squares	1	
	direction in the range 251°–253° (clockwise from north)	allow 17°–19° (to the horizontal)	1	

b)

07.4	the magnitude will increase	allow size	1	AO1 6.5.1.4
	direction will change towards the south	allow answers consistent with their response to question 07.3	1	