

**Resultant forces**

**Mark scheme**

1.	(a)	<i>idea that</i> balanced by friction force* / pushing force equals friction force (*note "balanced" by unspecified force)	1	
	<b>or</b>	specification of relevant force but no reference to balancing in both 1(a) and 1(b) gains 1 mark overall <i>for 1 mark</i>		
	(b)	balanced by upwards force of table* <i>for 1 mark</i>	1	
	(c)	makes it (slightly) warm / hot	1	
	<b>or</b>	wears it away (slightly) / damages surface <i>for 1 mark</i>		
				<b>[3]</b>
2.	(a)	up <i>for 1 mark</i>	1	
	(b)	(i) increased <i>for 1 mark</i>	1	
		(ii) more water displaced; ship heavier <i>either for 1 mark</i>	1	
				<b>[3]</b>
3.	(a)	A then E <i>for one mark</i>	1	
	(b)	A > E A = E A < E  <i>in this order for 1 mark each</i>	3	
	(c)	when van stops / is stationary / is parked <i>for one mark</i>	1	
	(d)	WX – slowing down (owtte) XY – constant speed (owtte) YZ – speeding up (owtte) <i>for 1 mark each</i>	3	
	(e)	..... force .... forwards .... backwards <i>for 1 mark each</i>	3	
				<b>[11]</b>