KS3 Physics

Answers

Chapter 7 – Motion and pressure

Question	Answers	Extra information	Mark
1	Average speed – is the total distance over the total time. Instantaneous speed – is the speed at a particular moment. Units of speed are – m/s and km/h. Unit of distance are – m and km. Units of time are – s and h.	3 marks for three correctly matched 2 marks for two correctly matched 1 mark for one correctly matched	4
2	higher higher		1 1
3	using skis or snowshoes using a backpack with shoulder straps		1 1
4(a)	BC, EF, GH	All needed	1
(b)	DE the slope is steepest		1 1
(c)	$\text{speed} = \frac{\text{distance}}{\text{time}}$ $= \frac{(300\,\text{m} - 200\,\text{m})}{(100\,\text{s} - 75\,\text{s})}$ = 4 (m/s)		1 1 1
(d)	$\text{average speed} = \frac{\text{total distance}}{\text{total time}}$ $= \frac{600\,\text{m}}{300\,\text{s}}$ = 2 (m/s)		1 1 1

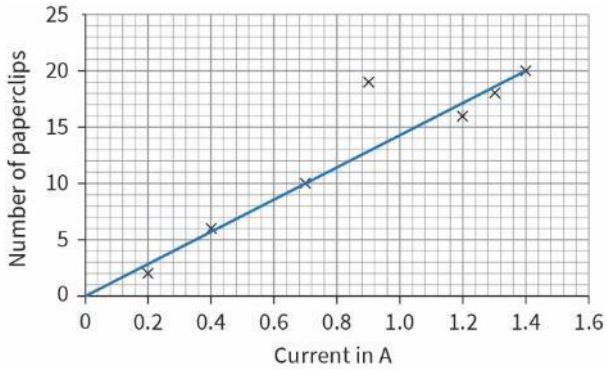
KS3 Physics

Answers

Question	Answers	Extra information	Mark
5(a)	turning force distance pivot newton metre anticlockwise clockwise law		1 1 1 1 1 1 1 1
(b)	clockwise moment: 1000 N × 0.5 m = 500 Nm anticlockwise moment: 500 N × 1 m = 500 Nm clockwise moments = anticlockwise moments so seesaw is balanced		1 1 1 1
6(a)	it decreases		1
(b)	there is less weight of air above it, and the air density decreases so there are less particle collisions		1
7(a)	relative speed = 30 m/s + 2 m/s = 32 m/s		1 1
(b)	0 m/s		1
	SPACED LEARNING QUESTIONS		
8(a)	Earth water		1 1
(b)	interactions the boat equal opposite		1 1 1 1

KS3 Physics

Answers

Question	Answers	Extra information	Mark
9(a)			1
(b)	(0.9, 19) OR if line of best fit in part a is closer to the anomaly – none		1
(c)	measured the number of paperclips for each current several times found the average number of paper clips		1 1
(d)	if the current is bigger, the electromagnet picks up more paperclips		1
(e)	the number of paperclips is a discrete variable not a continuous variable		1