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(c) The student adds weights to balance the rod for different currents.

The table shows her results.

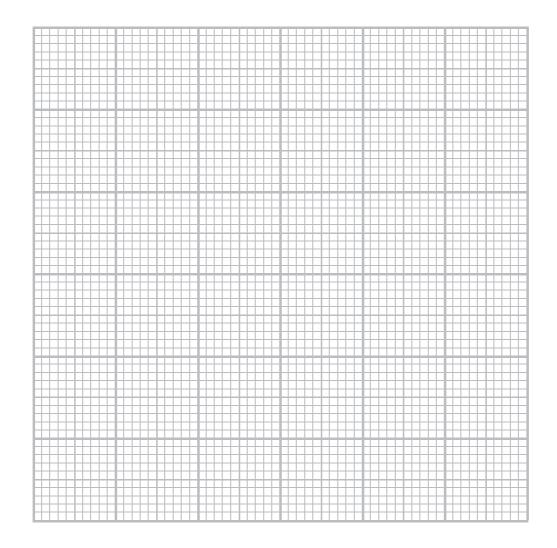
Current in A	Total weight added in N
0.0	0.1
0.1	0.5
0.5	2.1
0.7	2.5
0.9	3.7
1.1	4.5

(i) Plot a graph of the student's results, with the independent variable on the x-axis.

(4)

(ii) Draw a straight line of best fit.

(1)





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magnetic field. (2)	iii) Suggest why the student should repeat the reading for a current of 0.7 A.	(2)
magnetic field. (2) (2) (2) (3) (4) (5) (6) (6) (7) Estimate the weight needed to balance the rod when the current is 2 A. (8) (9) Weight needed =		
magnetic field. (2) (2) (2) (3) (4) (5) (6) (6) (7) Estimate the weight needed to balance the rod when the current is 2 A. (8) (9) Weight needed =		
(2) (2) (3) (4) (5) (6) (7) Estimate the weight needed to balance the rod when the current is 2 A. (2) (2) (2)	iv) Describe the relationship between the current and the force produced by the	
weight needed =N	magnetic field.	(2)
weight needed =N		
weight needed =N		
	v) Estimate the weight needed to balance the rod when the current is 2 A.	(2)
(Total for Question 6 = 17 marks)	weight needed =	N
	(Total for Question 6 = 17 m	arks)

