Paper Reference(s) 4PH1/1P 4SD0/1P Pearson Edexcel International GCSE (9–1)

Physics Science (Double Award) 4SD0 Paper: 1P

Time: 2 hours plus your additional time allowance

Diagram Booklet

In the boxes below, write your name, centre number and candidate number.

Surname				
Other names				
Centre Number				
Candidate Number	T.			

INSTRUCTIONS

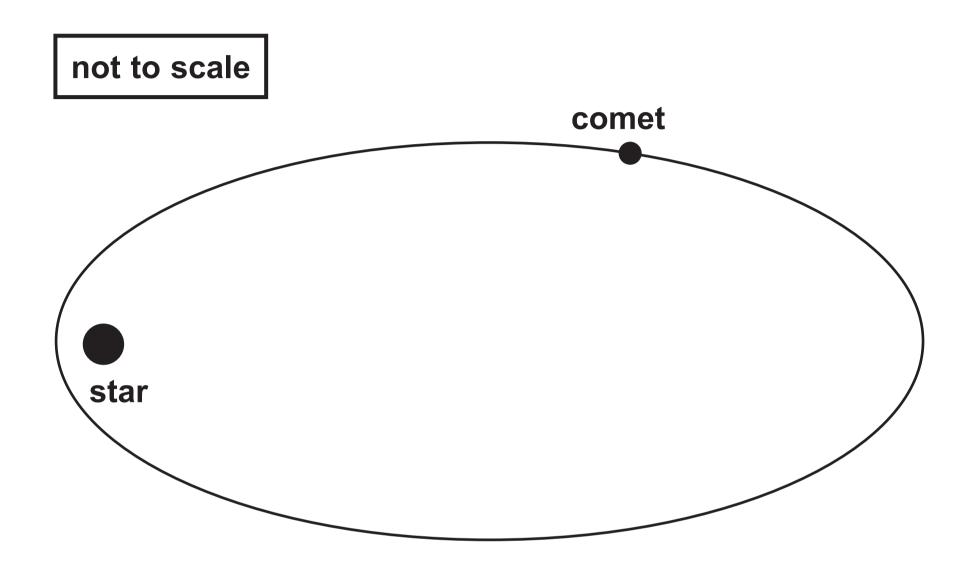
There may be spare copies of some diagrams in case you need them.

THIS DIAGRAM BOOKLET MUST BE RETURNED WITH THE QUESTION PAPER AT THE END OF THE EXAMINATION.

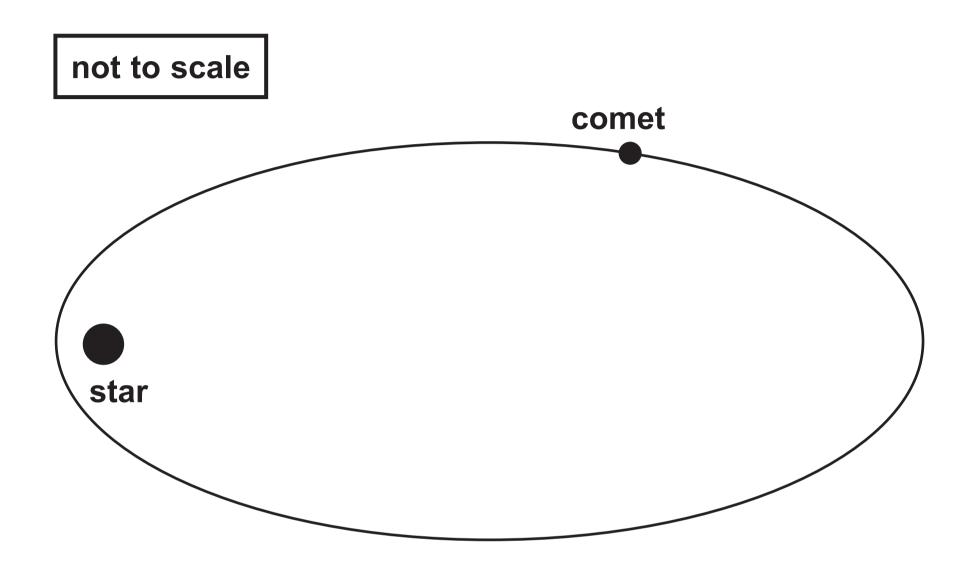
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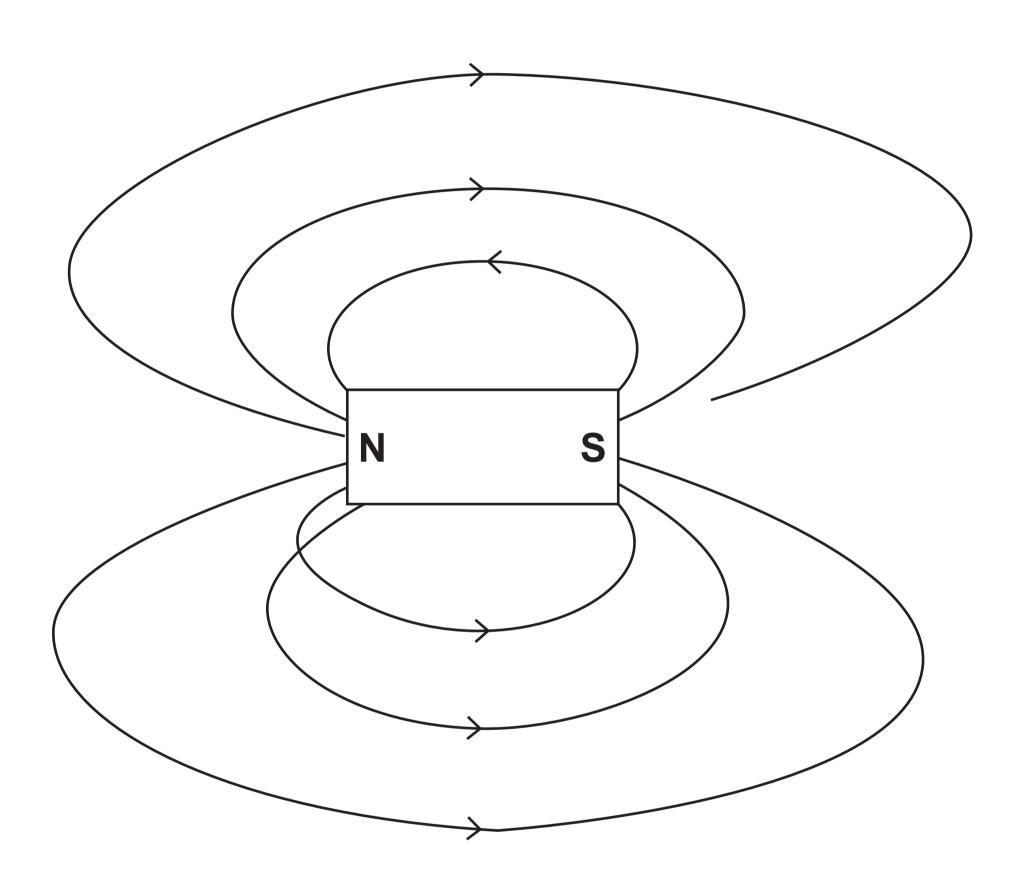
Question 1(b)



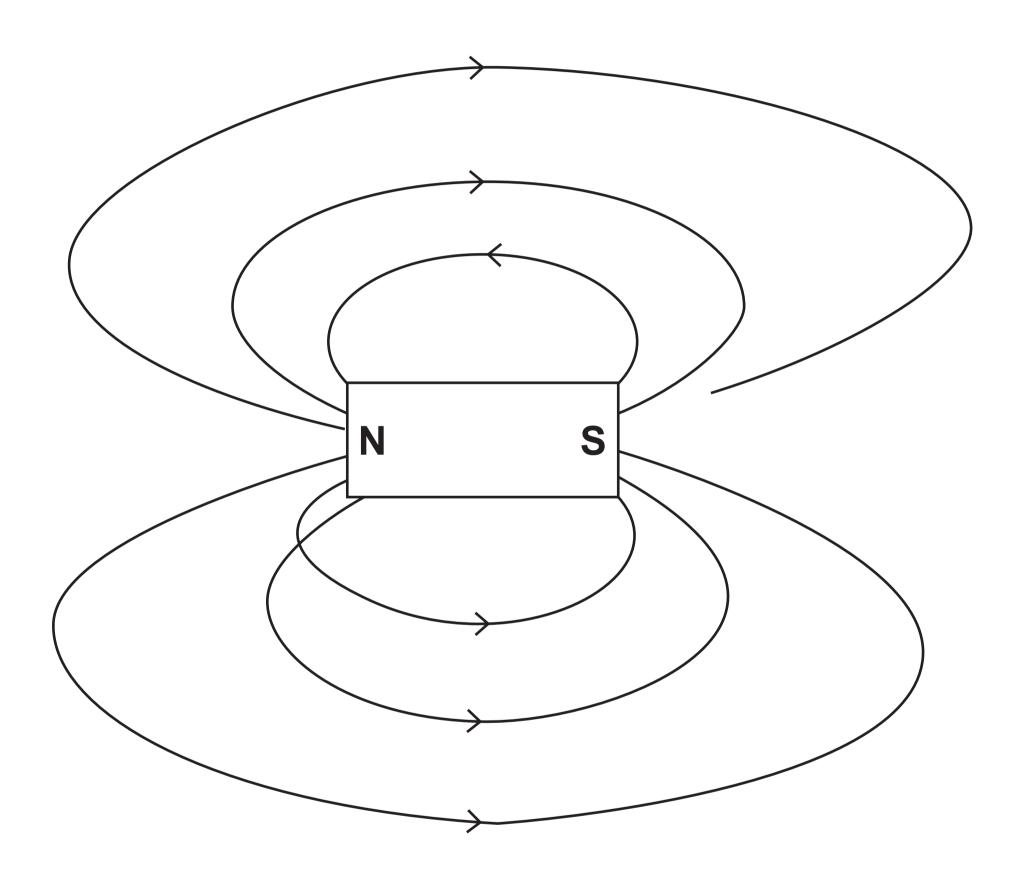
Question 1(b) (Spare copy)



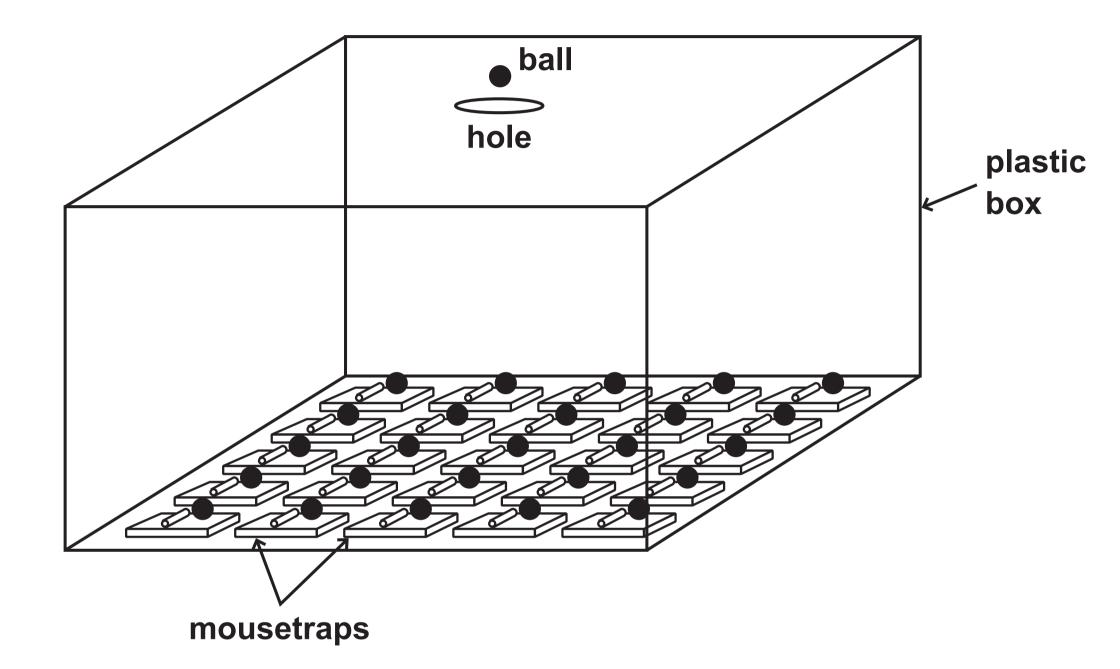
Question 2(b)



Question 2(b) (Spare copy)



Question 3



Question 3(c)

absorb

ionise

neutralise

reflect

slow

boron

granite

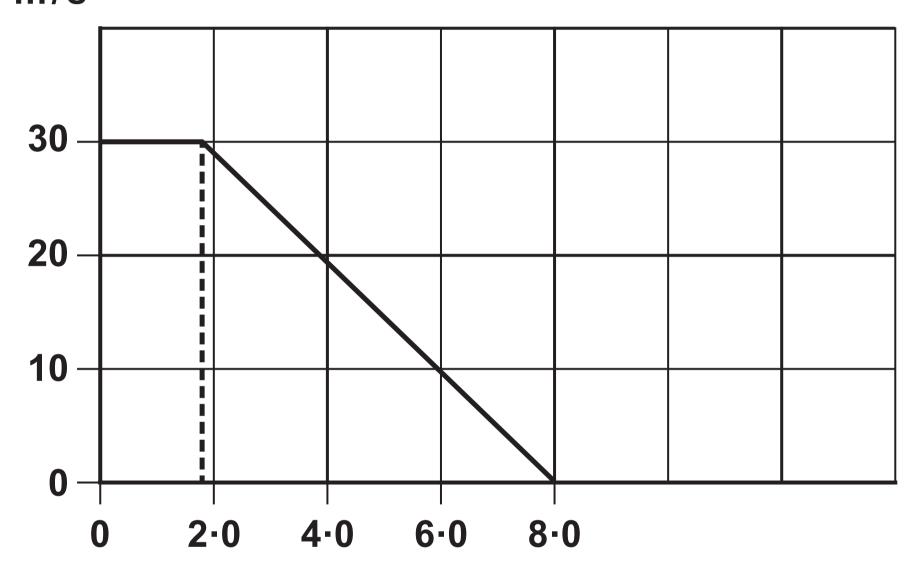
graphite

paper

uranium

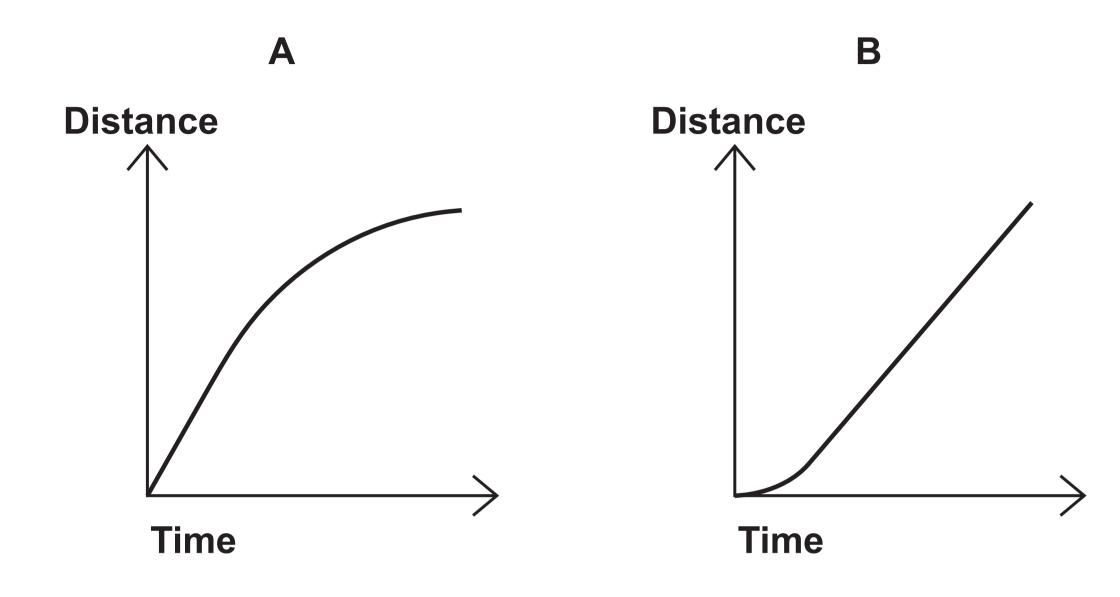
Question 4(a)

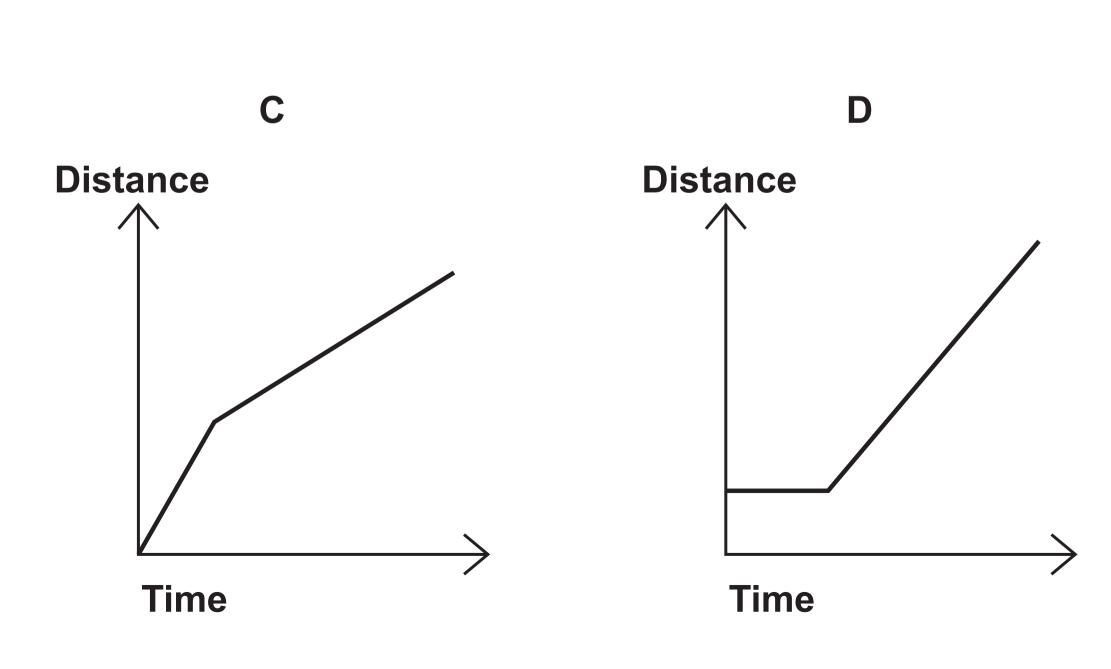
Velocity in m/s



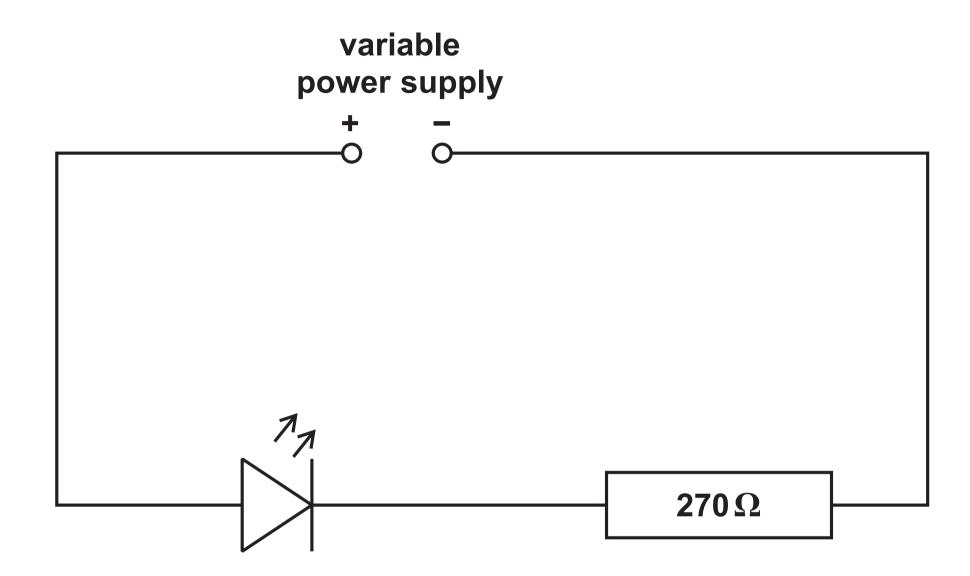
Time in seconds

Question 4(b)

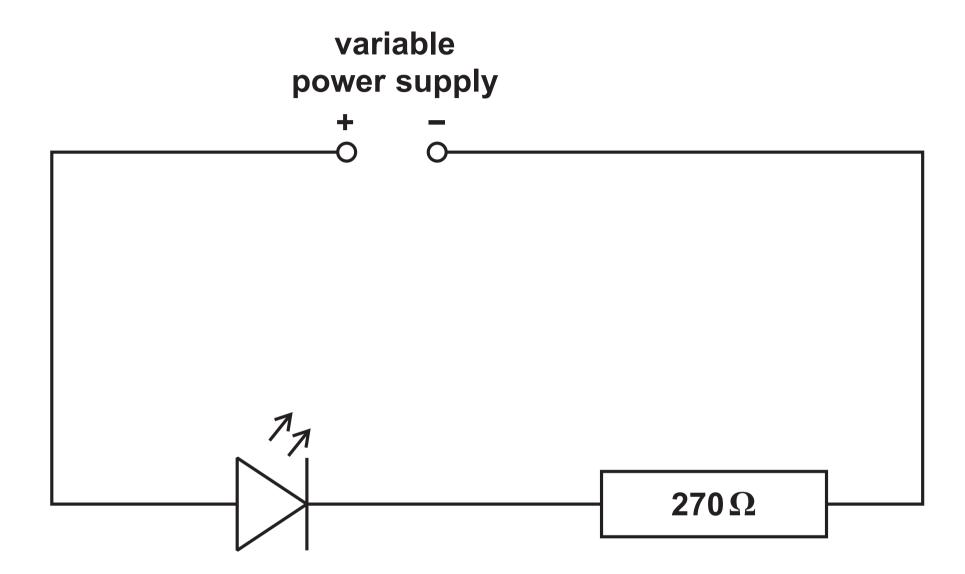




Question 5(a)

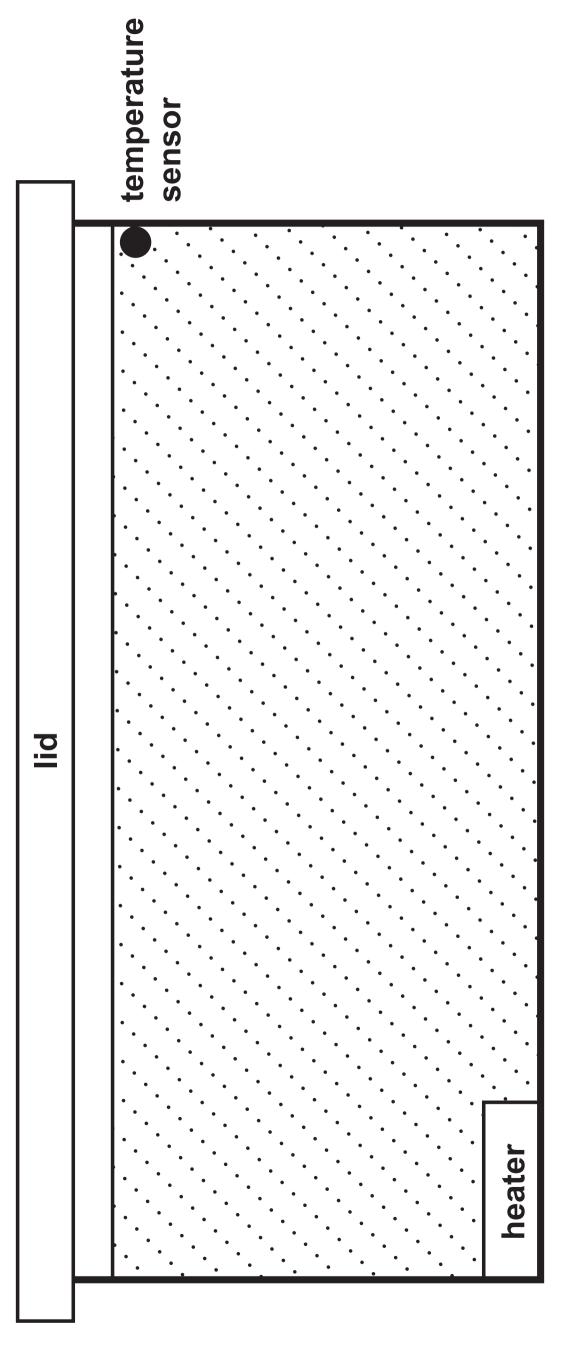


Question 5(a) (Spare copy)

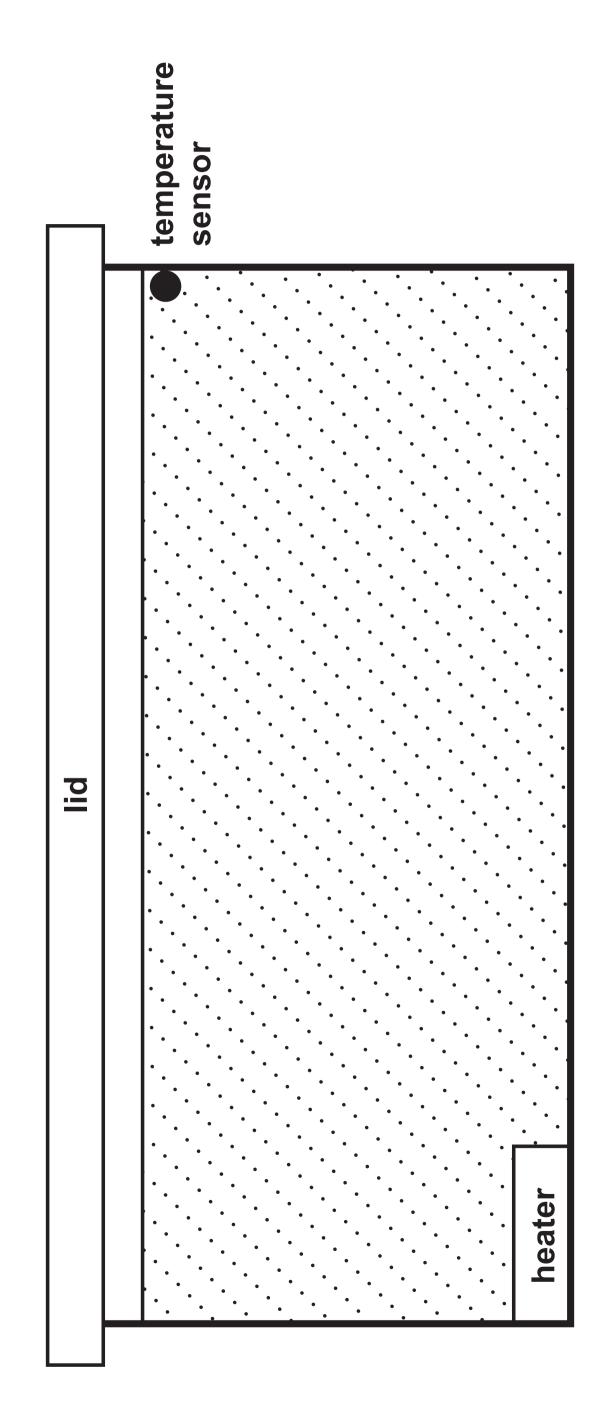


Question 5(b)

Question 5(b) (Spare copy)

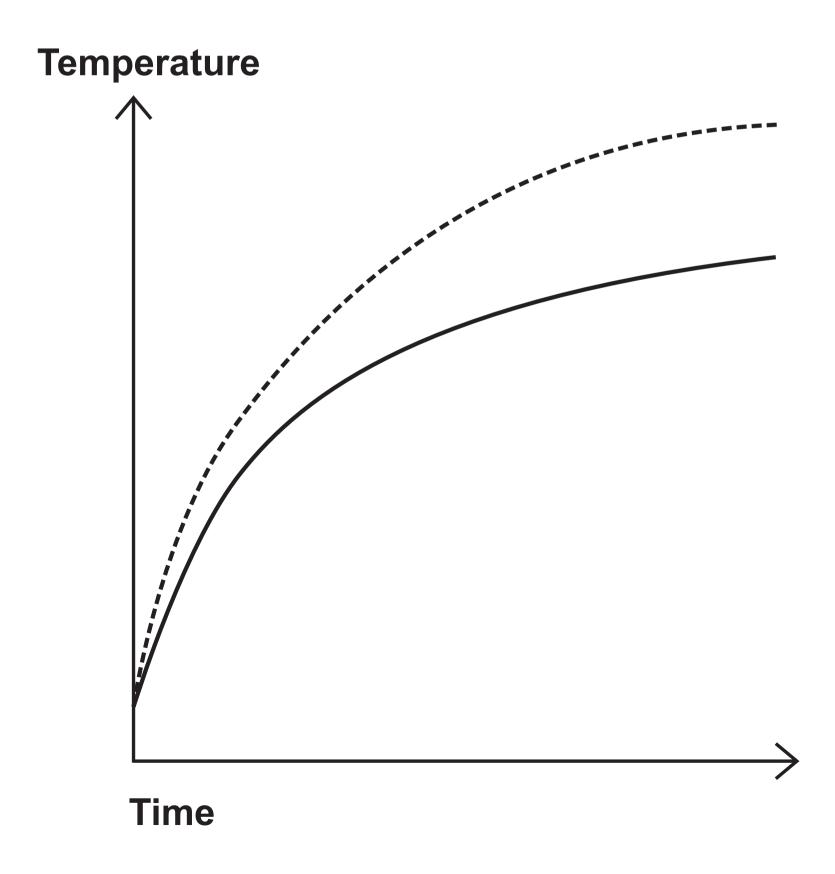


Question 6(a) (Spare copy)

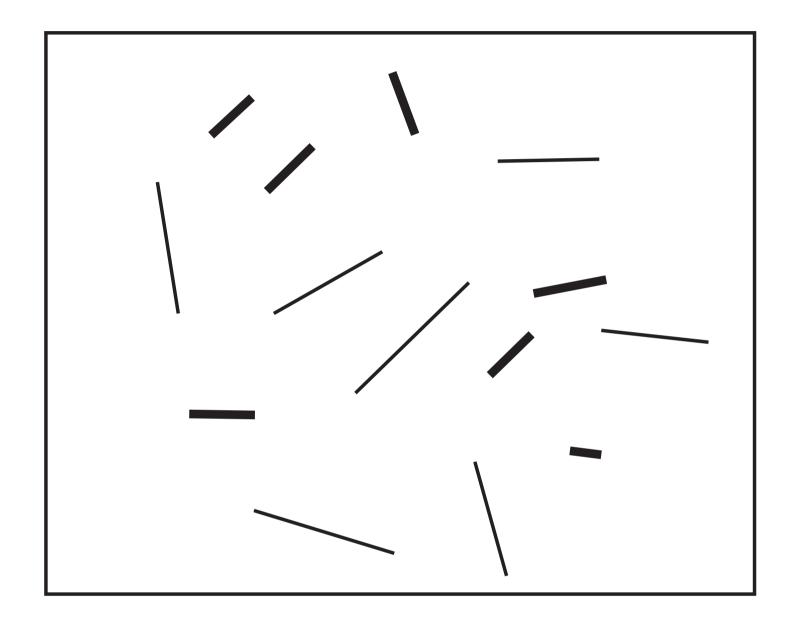


Question 6(b)





Question 7(a)



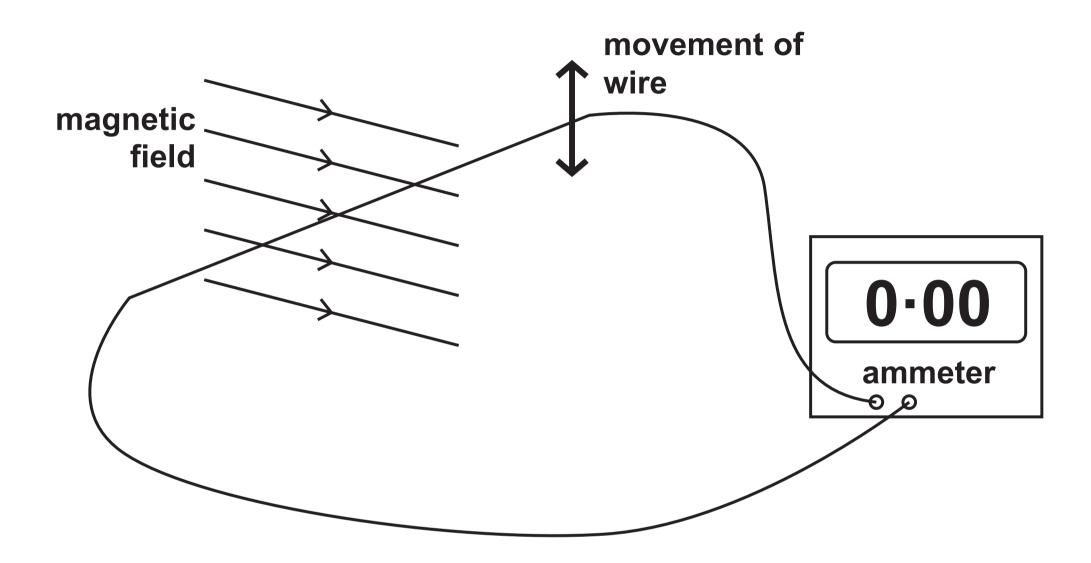
Question 7(b)(ii)

$${}^{235}_{92}U \rightarrow {}^{231}_{1}Th + {}^{2}_{2}\alpha$$

Question 7(b)(ii) (Spare copy)

$${}^{235}_{92}U \rightarrow {}^{231}_{1}Th + {}^{2}_{2}\alpha$$

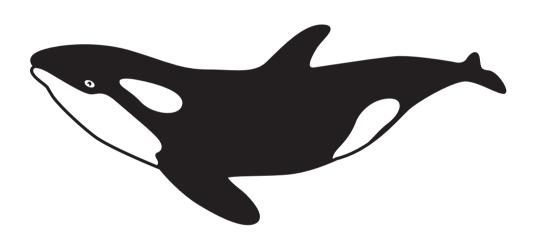
Question 8(b)



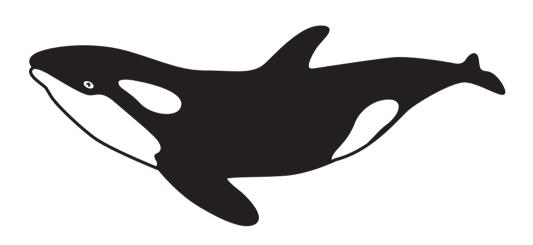
Question 9(a)



Question 9(b)



Question 9(b) (Spare copy)



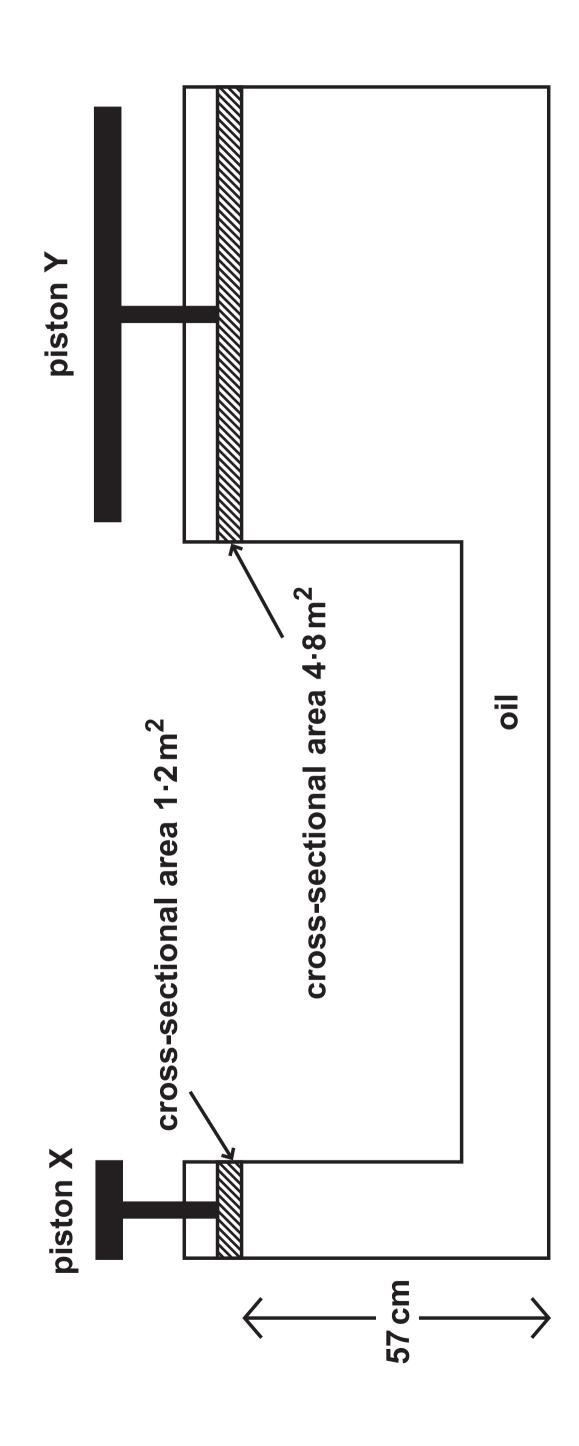
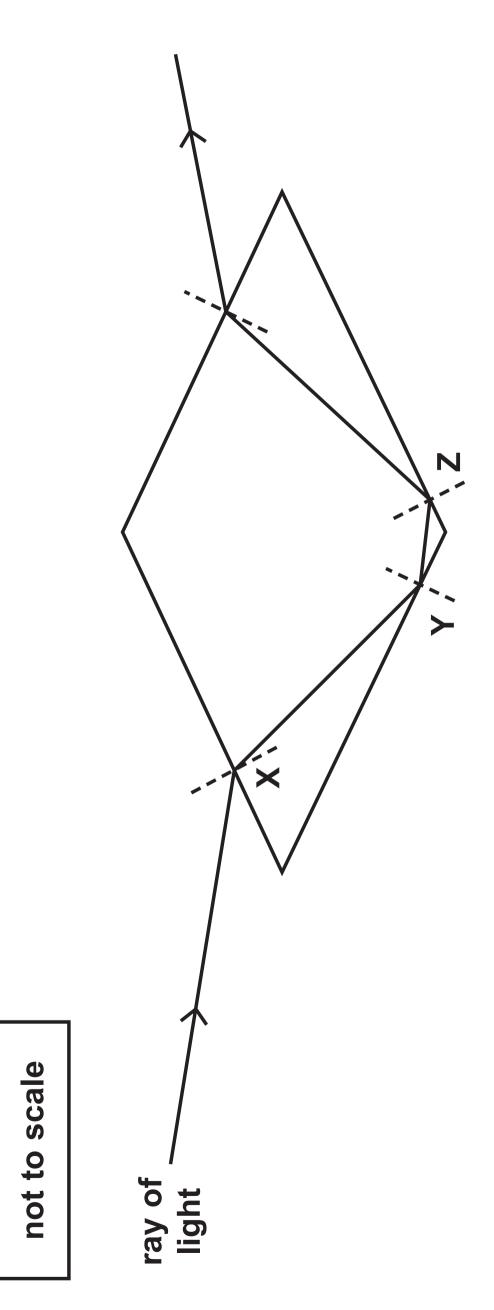
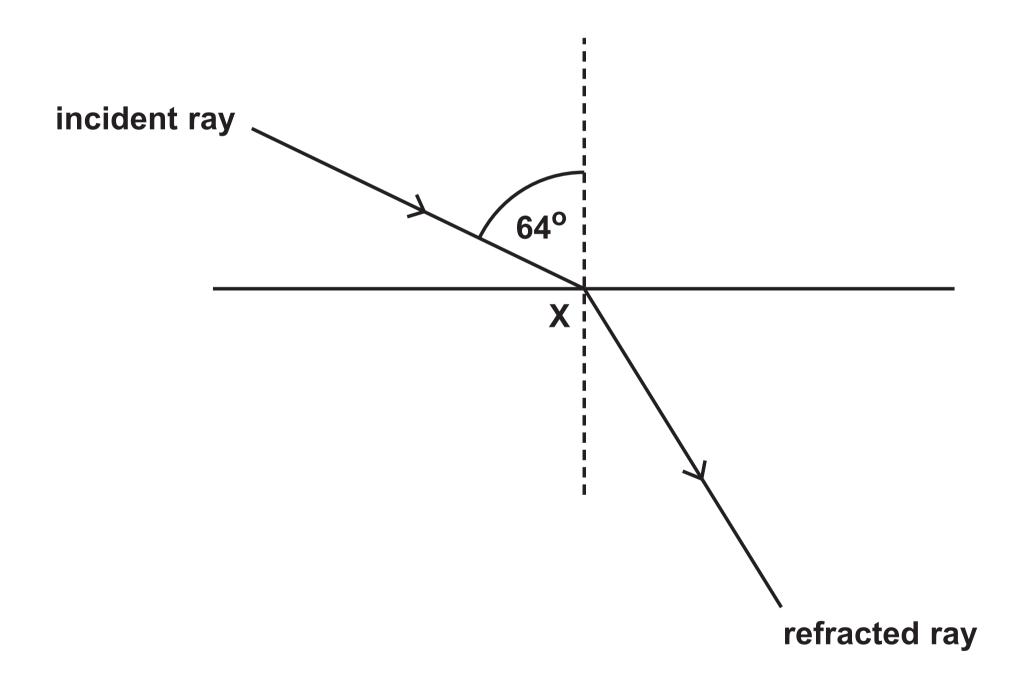


DIAGRAM 1



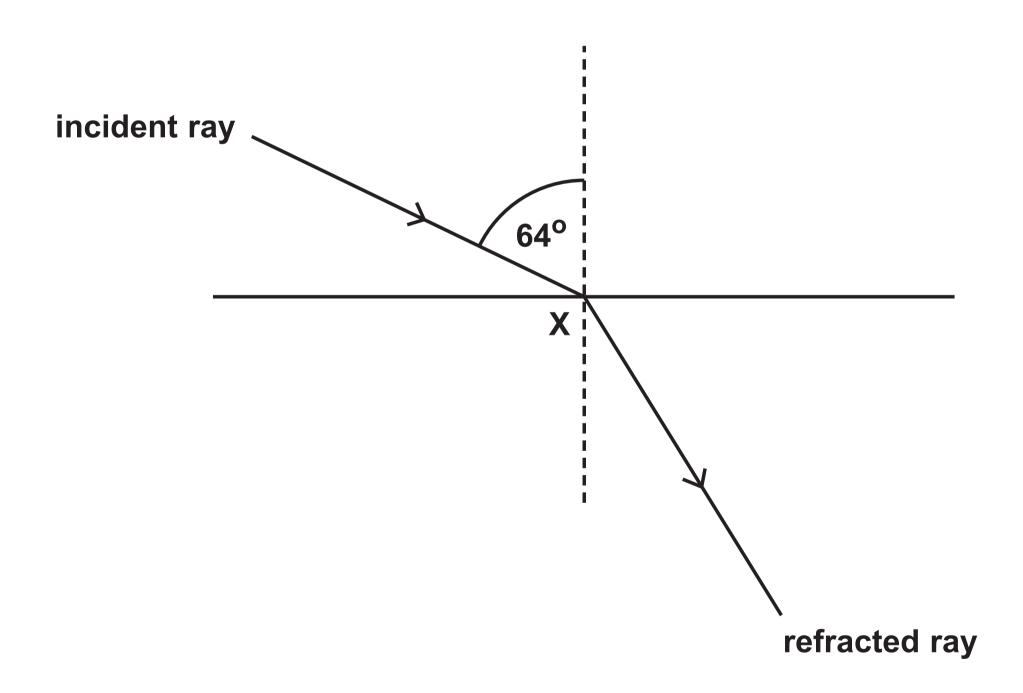
Question 11(a)(i)

DIAGRAM 2

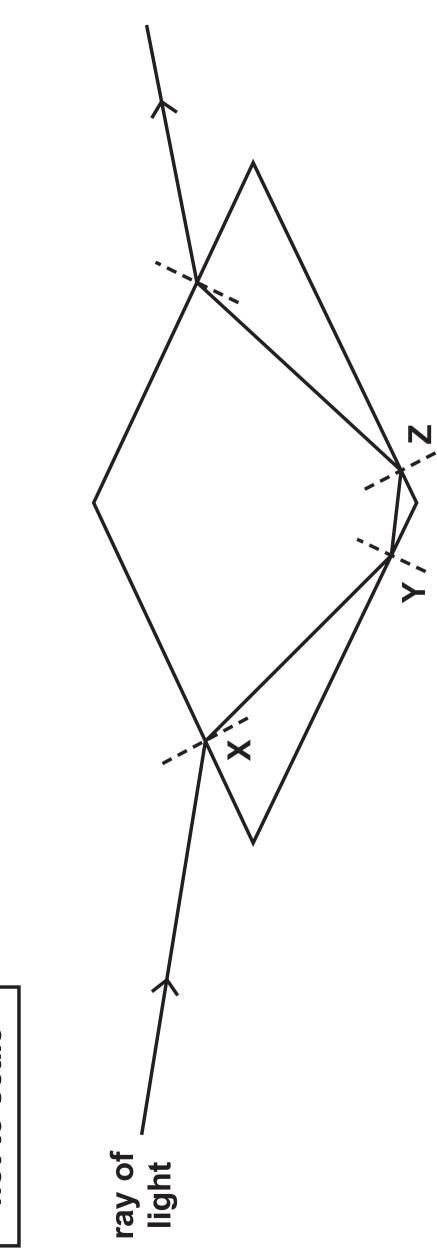


Question 11(a)(i) (Spare copy)

DIAGRAM 2



not to scale



Question 9(a)

(Source: © Alexander Baumann/Shutterstock)

Question 9(b)

(Source: © Eugenia Petrovskaya/Shutterstock)