

**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.**

<b>Surname</b>					
<b>Other names</b>					
<b>Centre Number</b>					
<b>Candidate Number</b>					

## 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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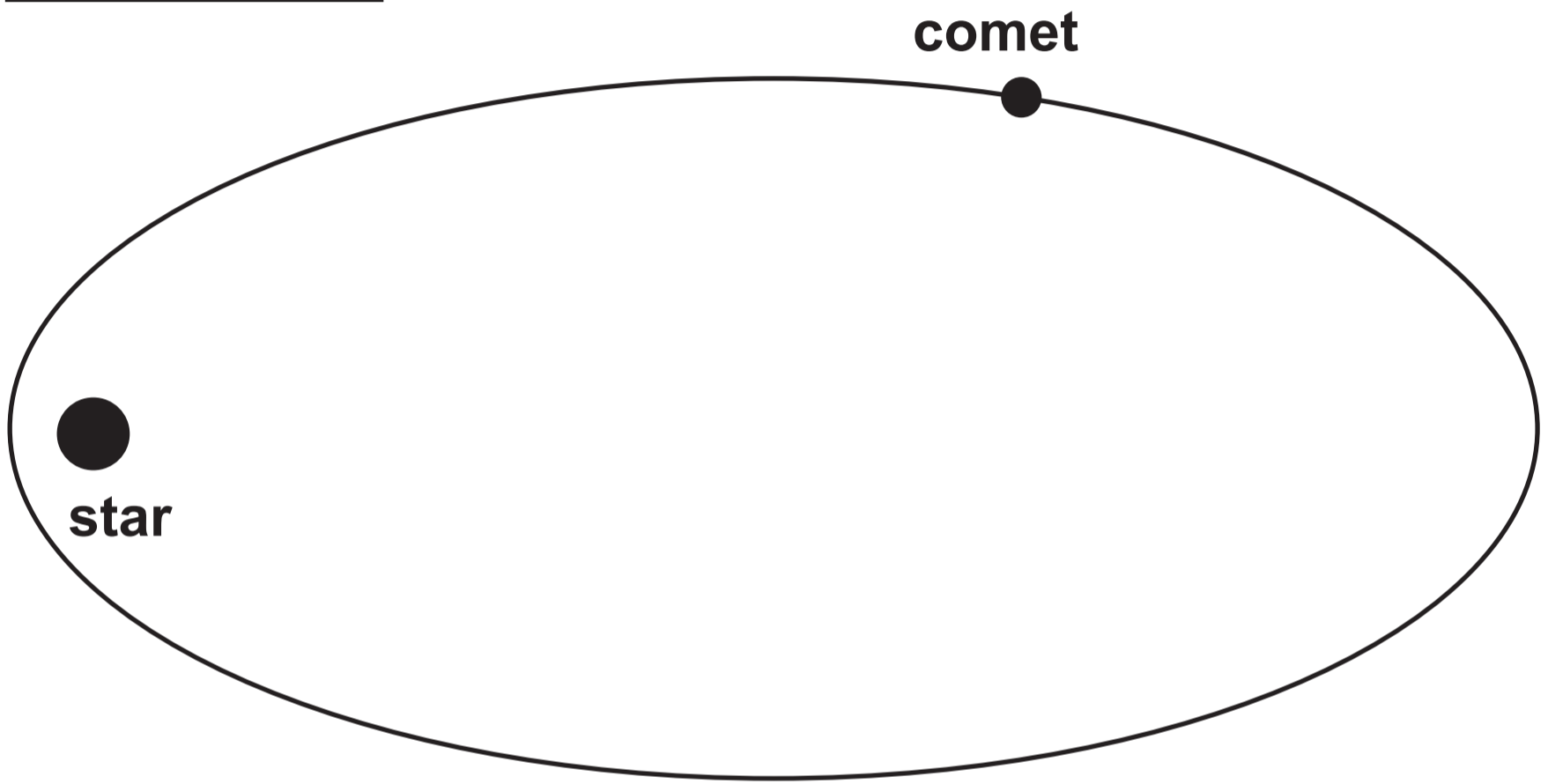
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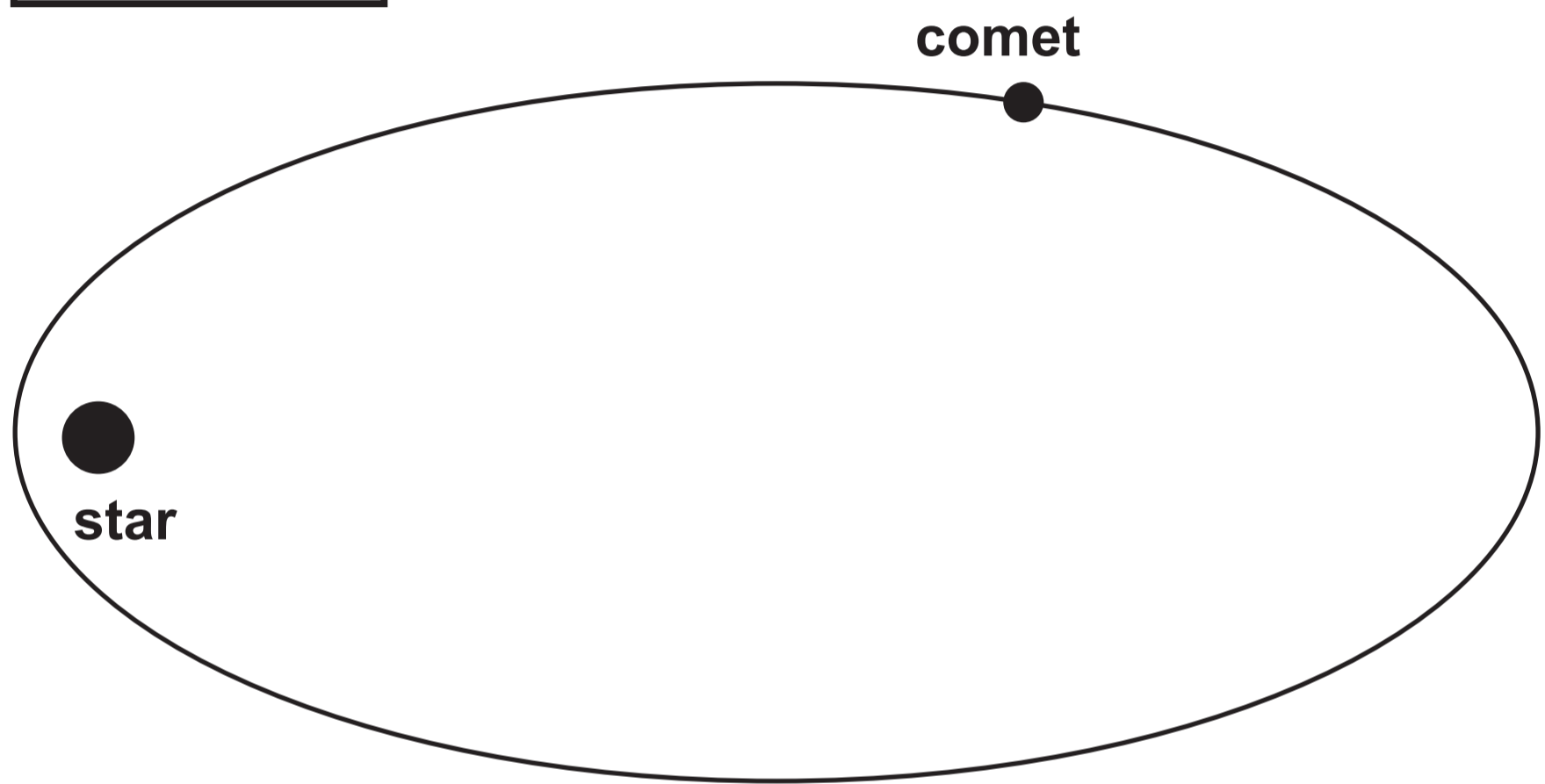
Question 1(b)

not to scale

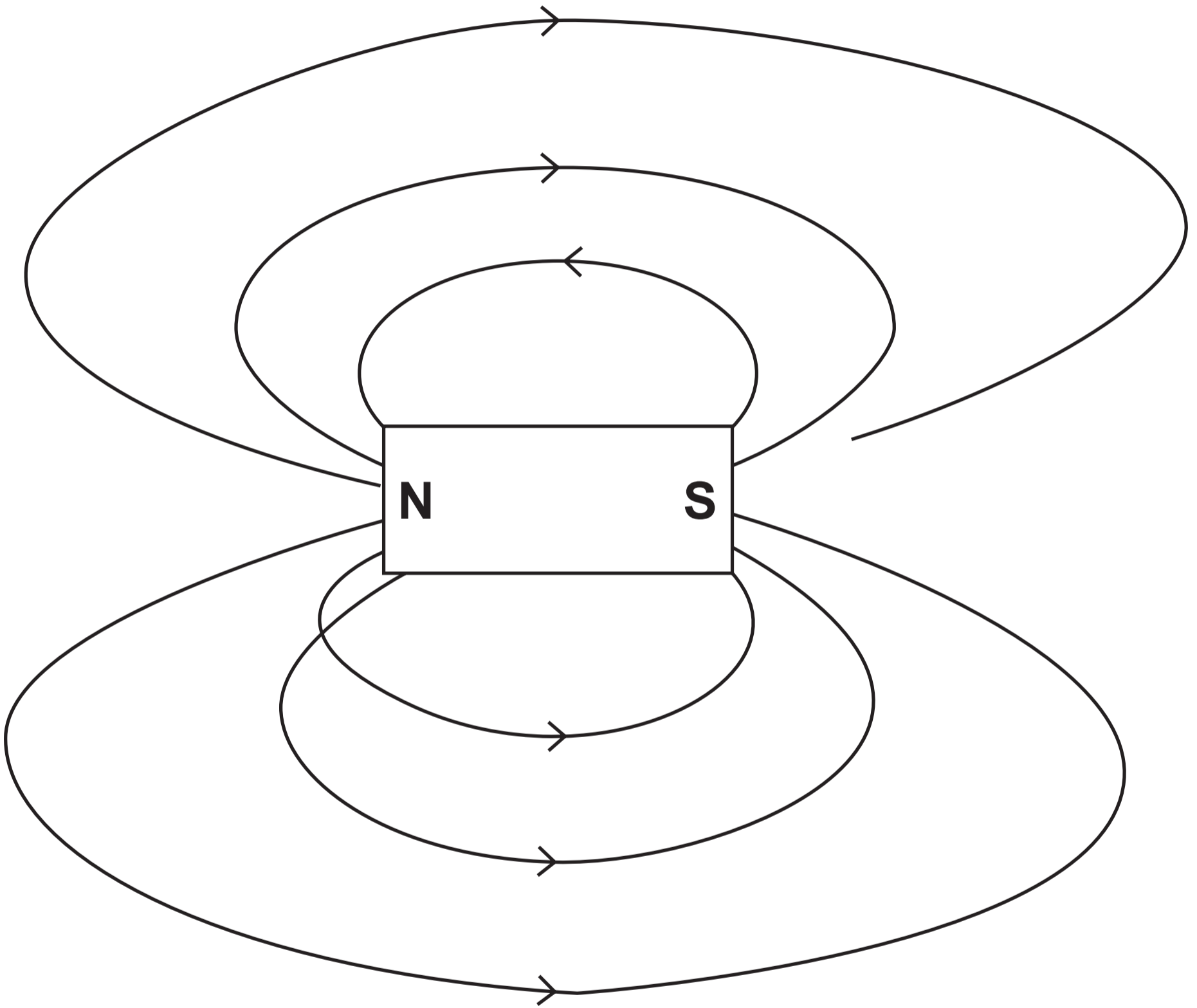


## Question 1(b) (Spare copy)

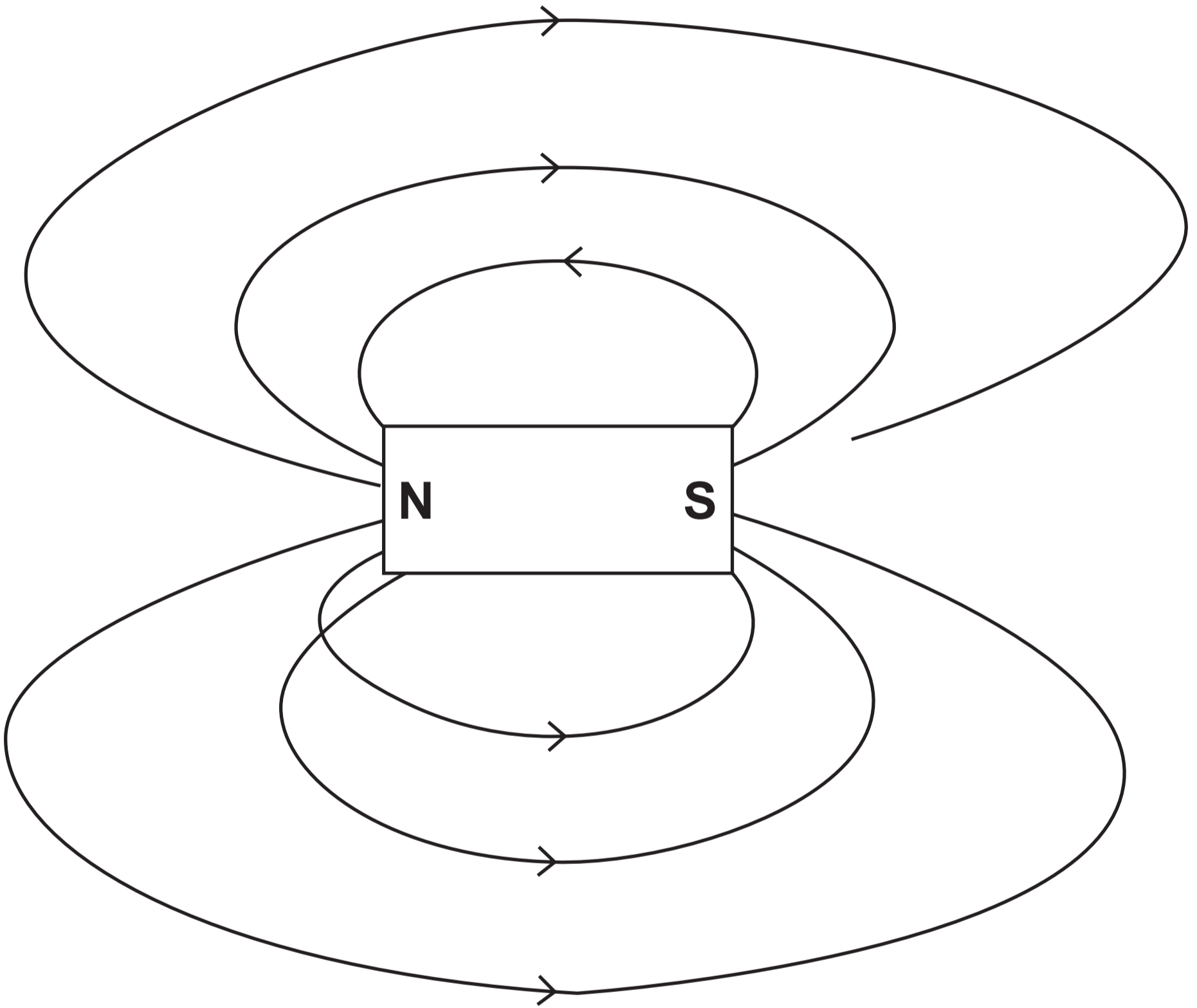
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Question 2(b)

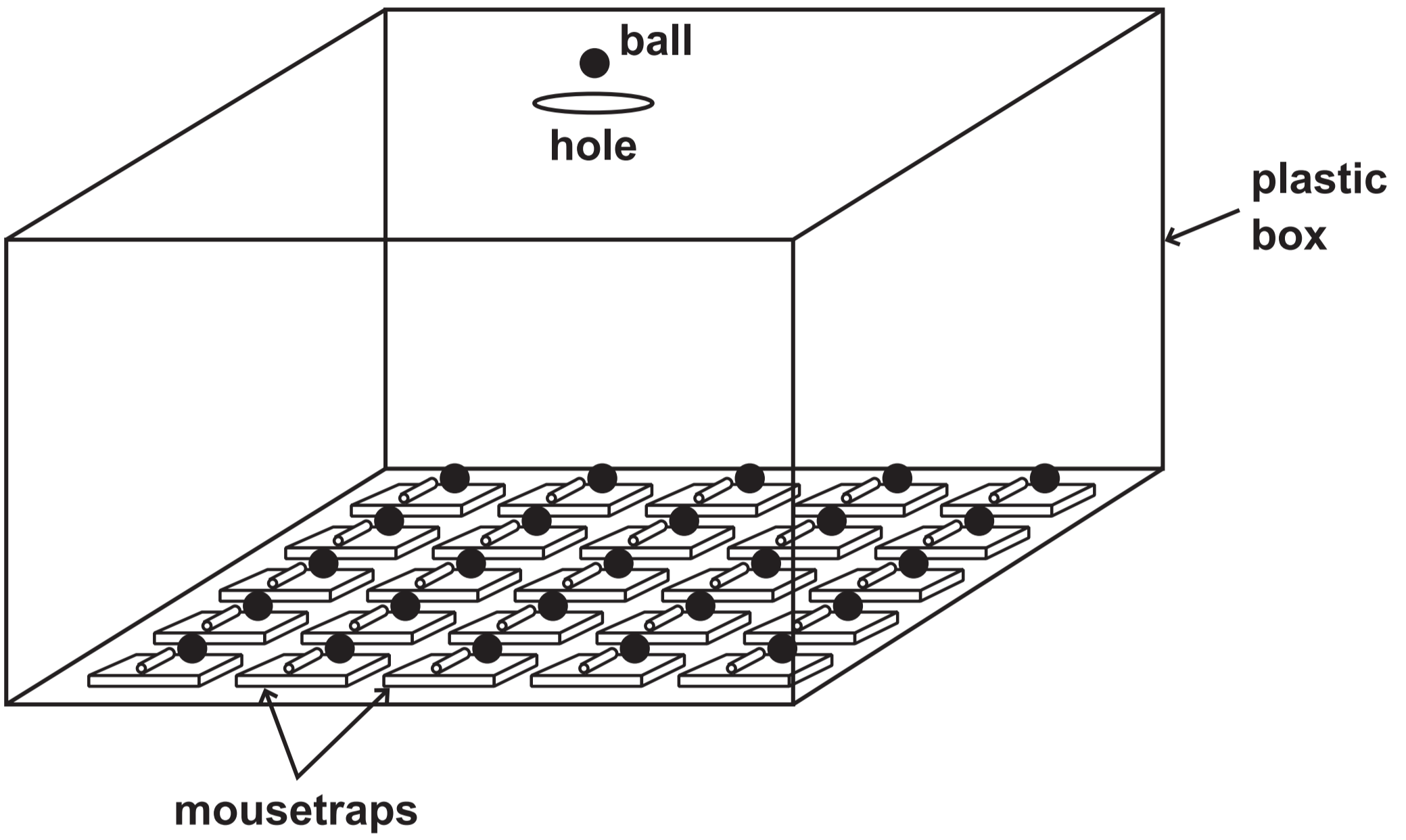


Question 2(b) (Spare copy)





Question 3



**Question 3(c)**

**absorb**

**ionise**

**neutralise**

**reflect**

**slow**

**boron**

**granite**

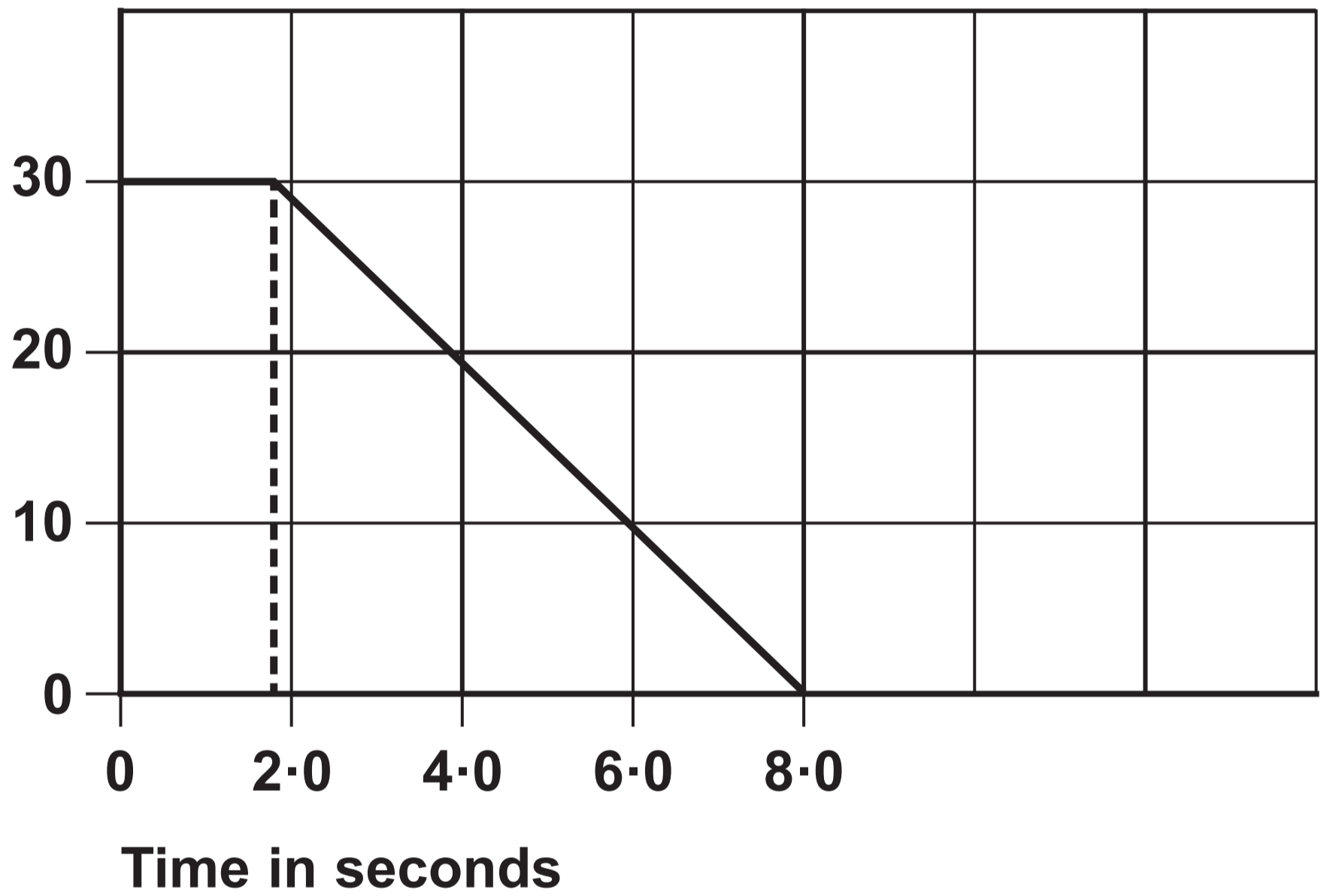
**graphite**

**paper**

**uranium**

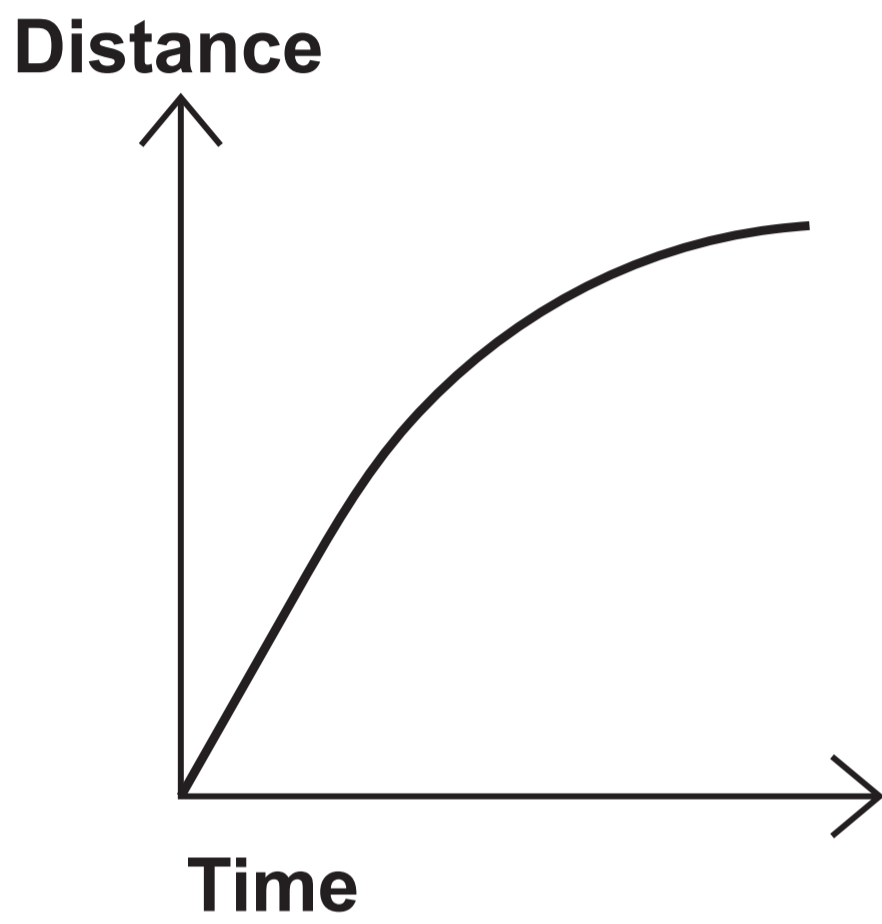
## Question 4(a)

Velocity  
in m/s

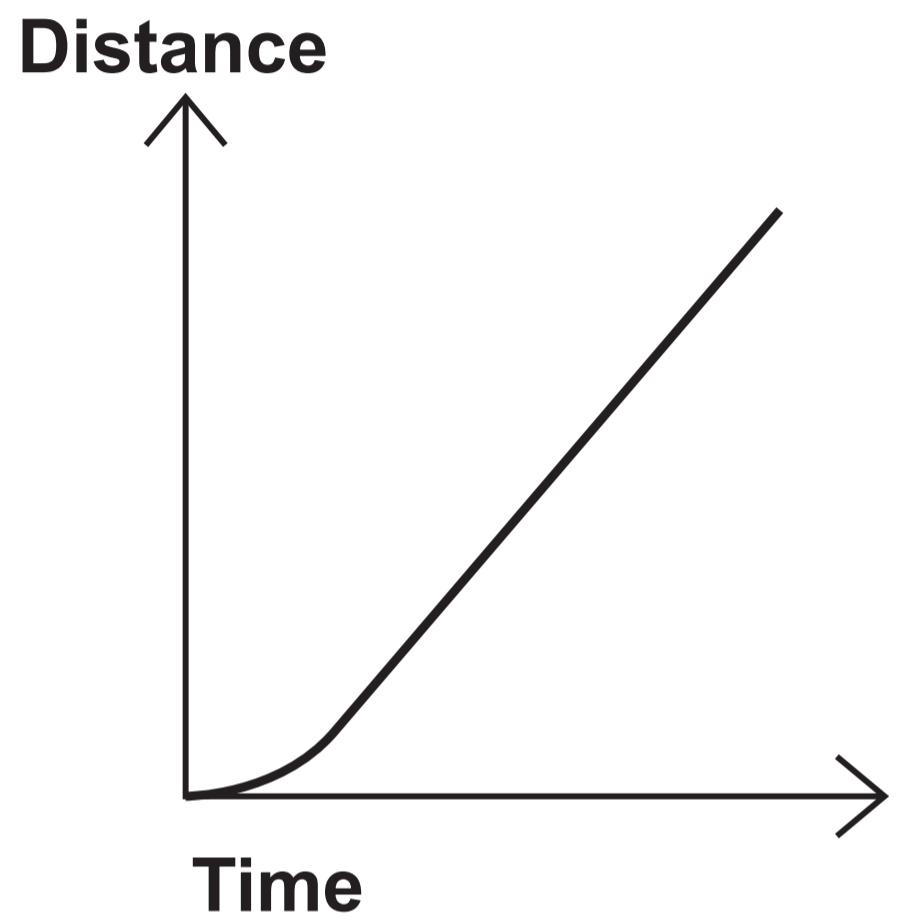


## Question 4(b)

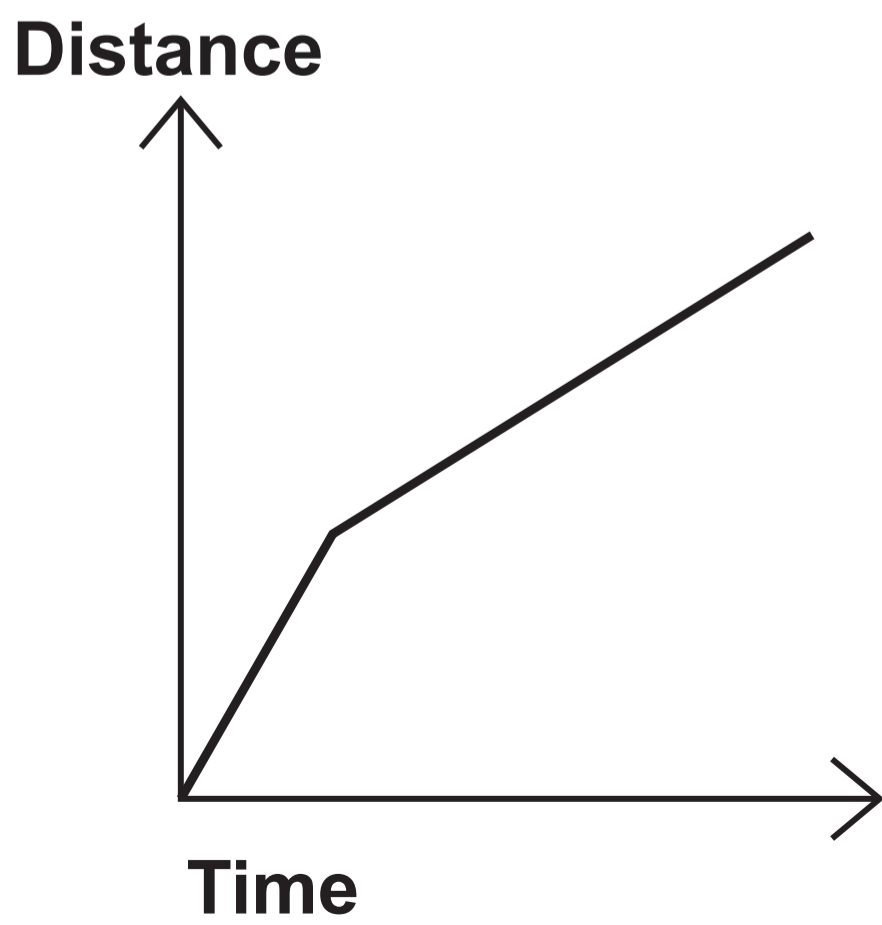
A



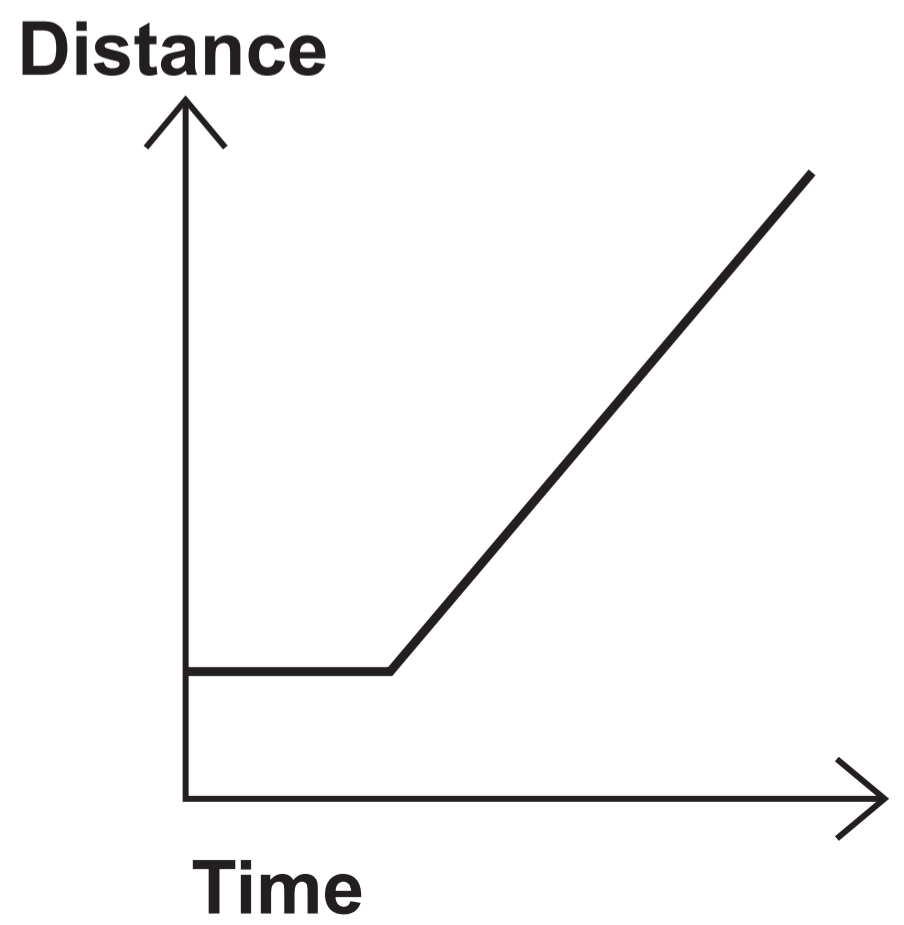
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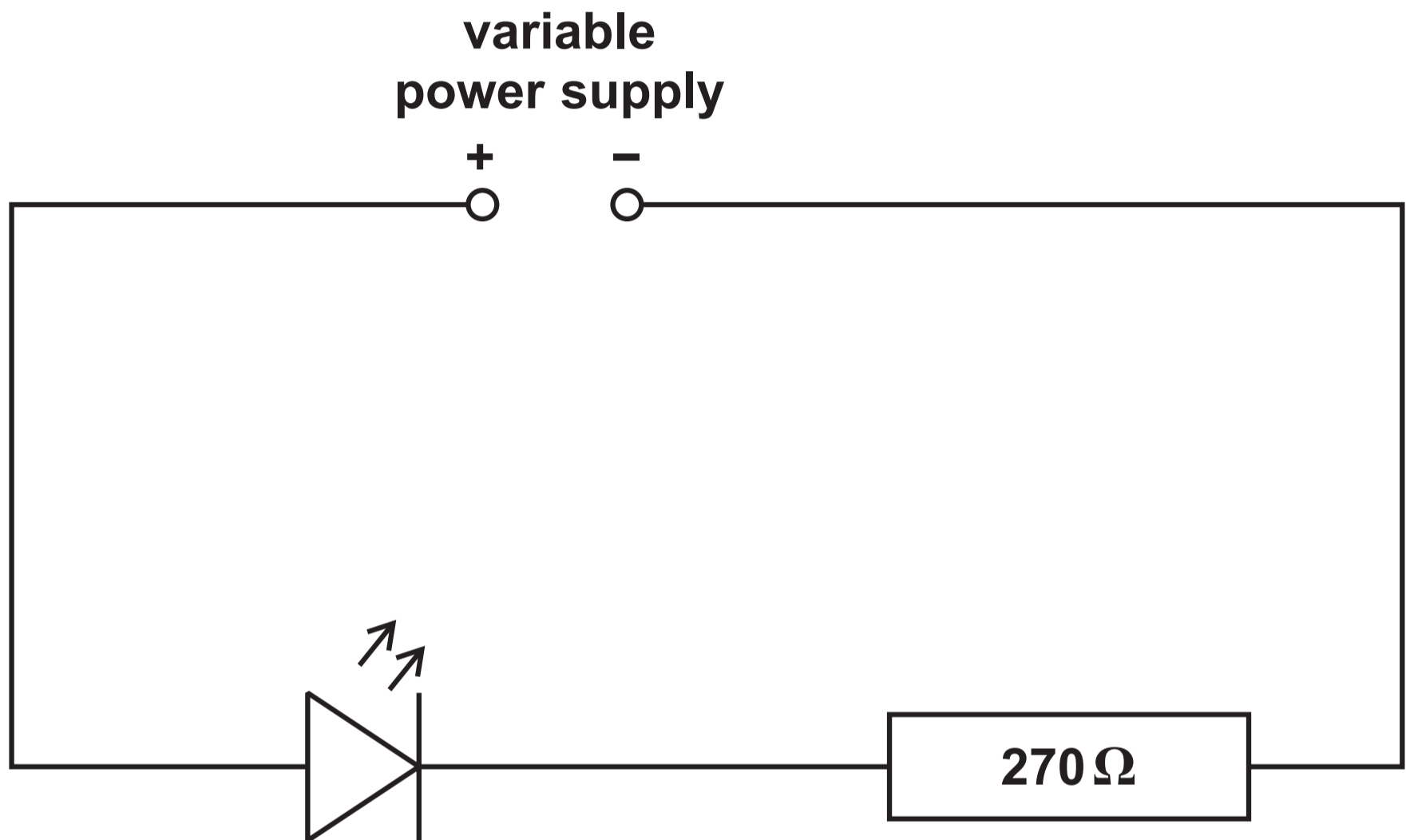
C



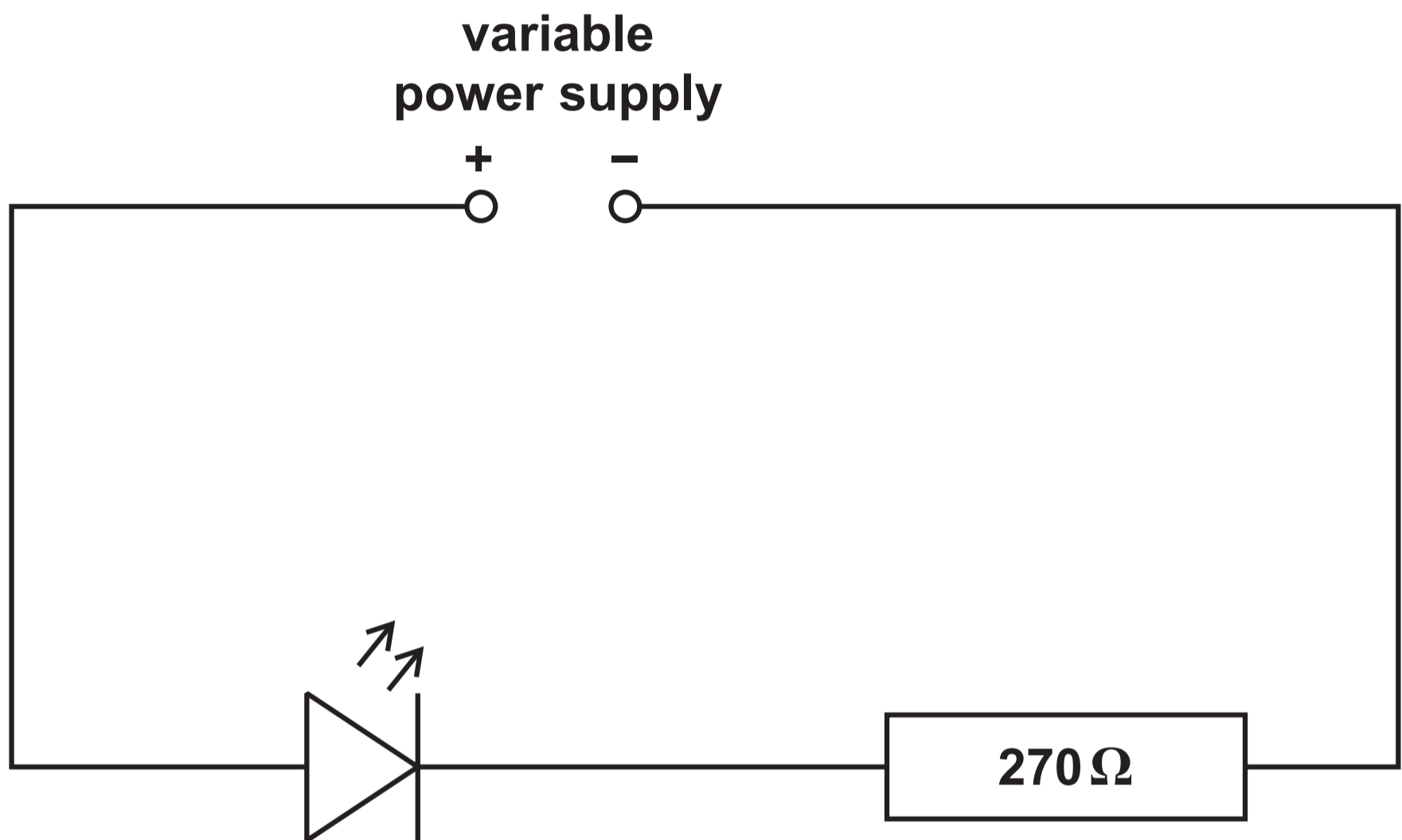
D



## Question 5(a)



## Question 5(a) (Spare copy)



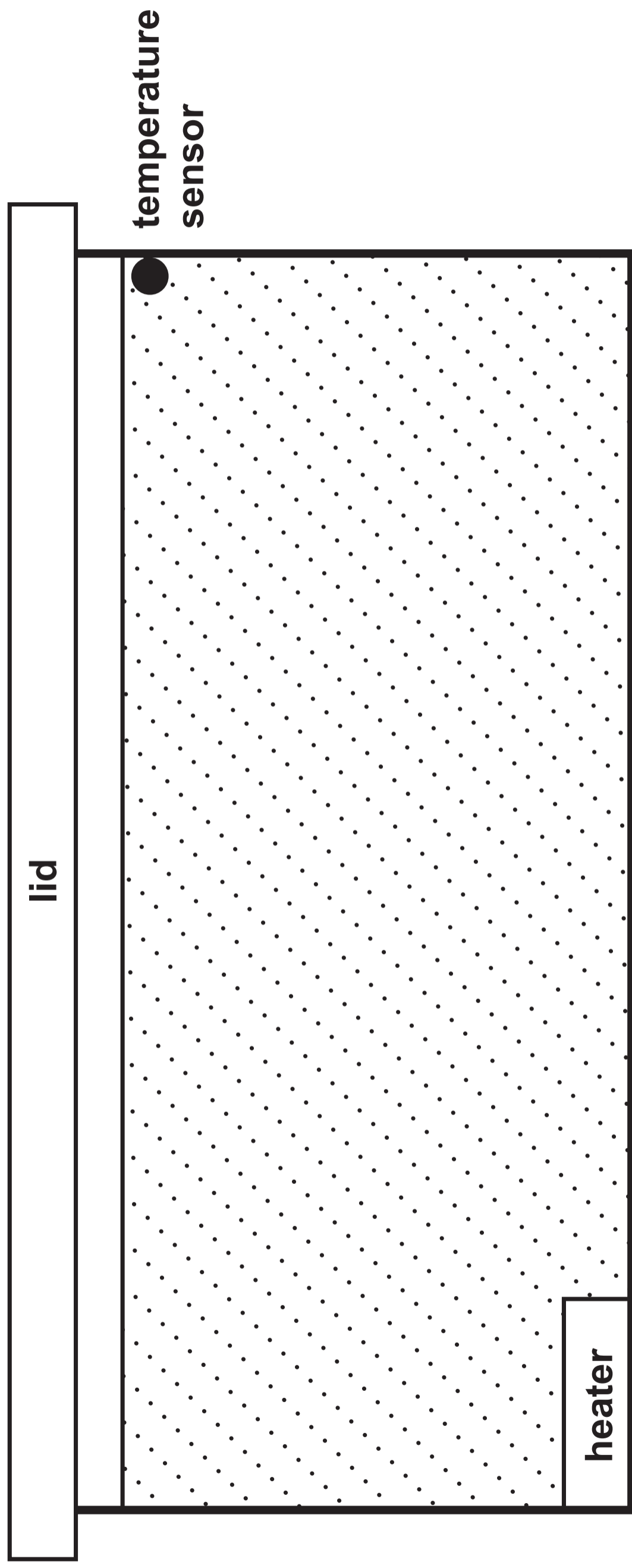




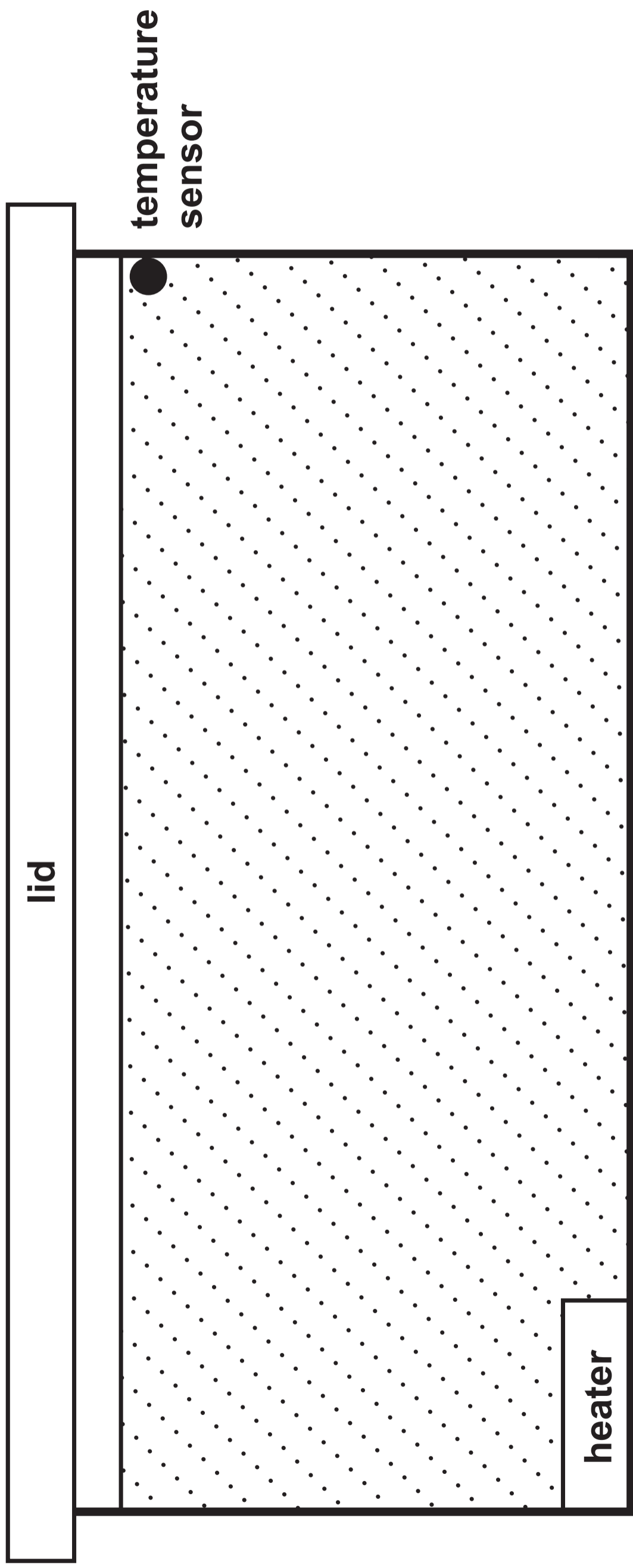


Question 6(a)

17

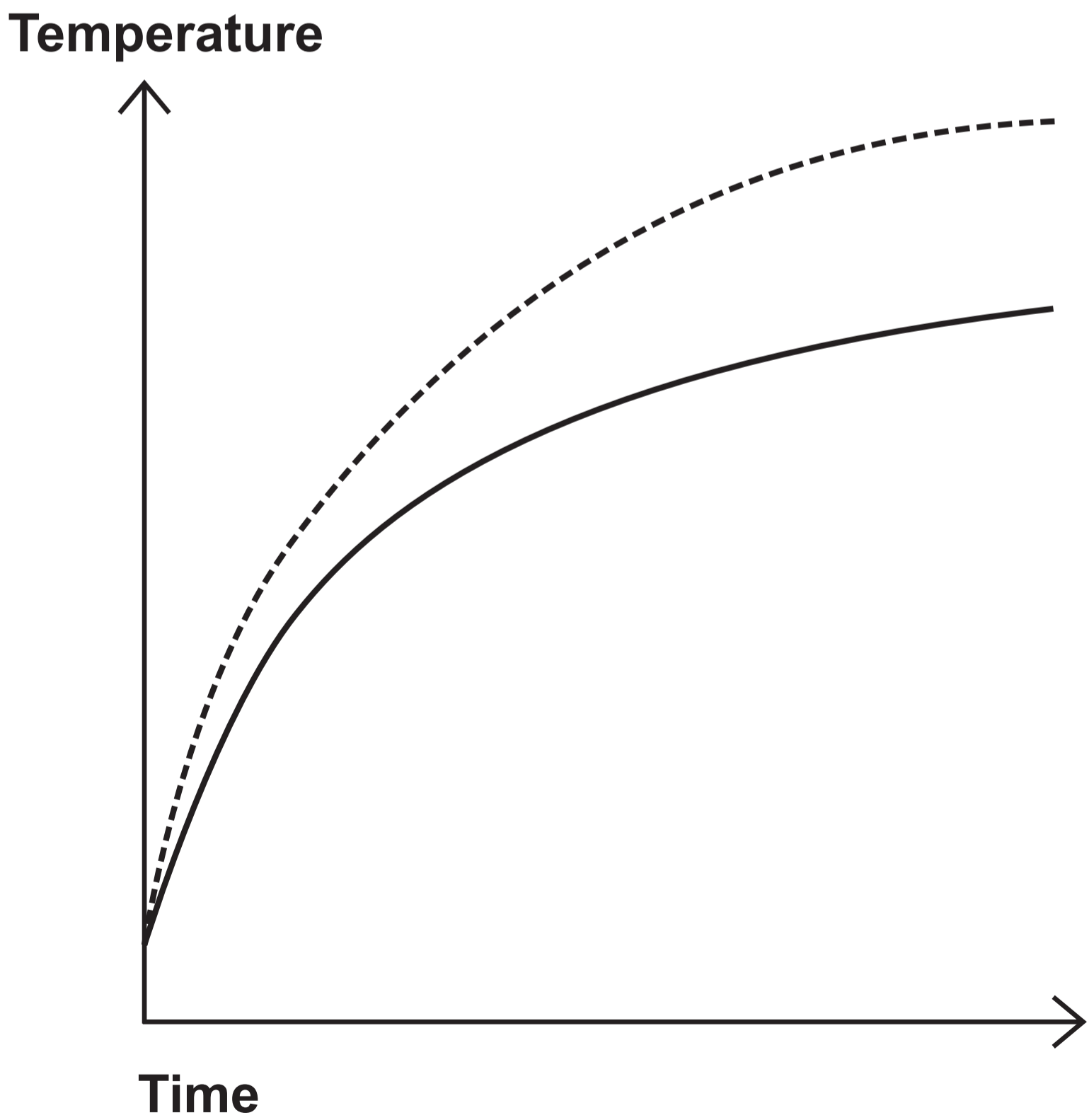


Question 6(a) (Spare copy)

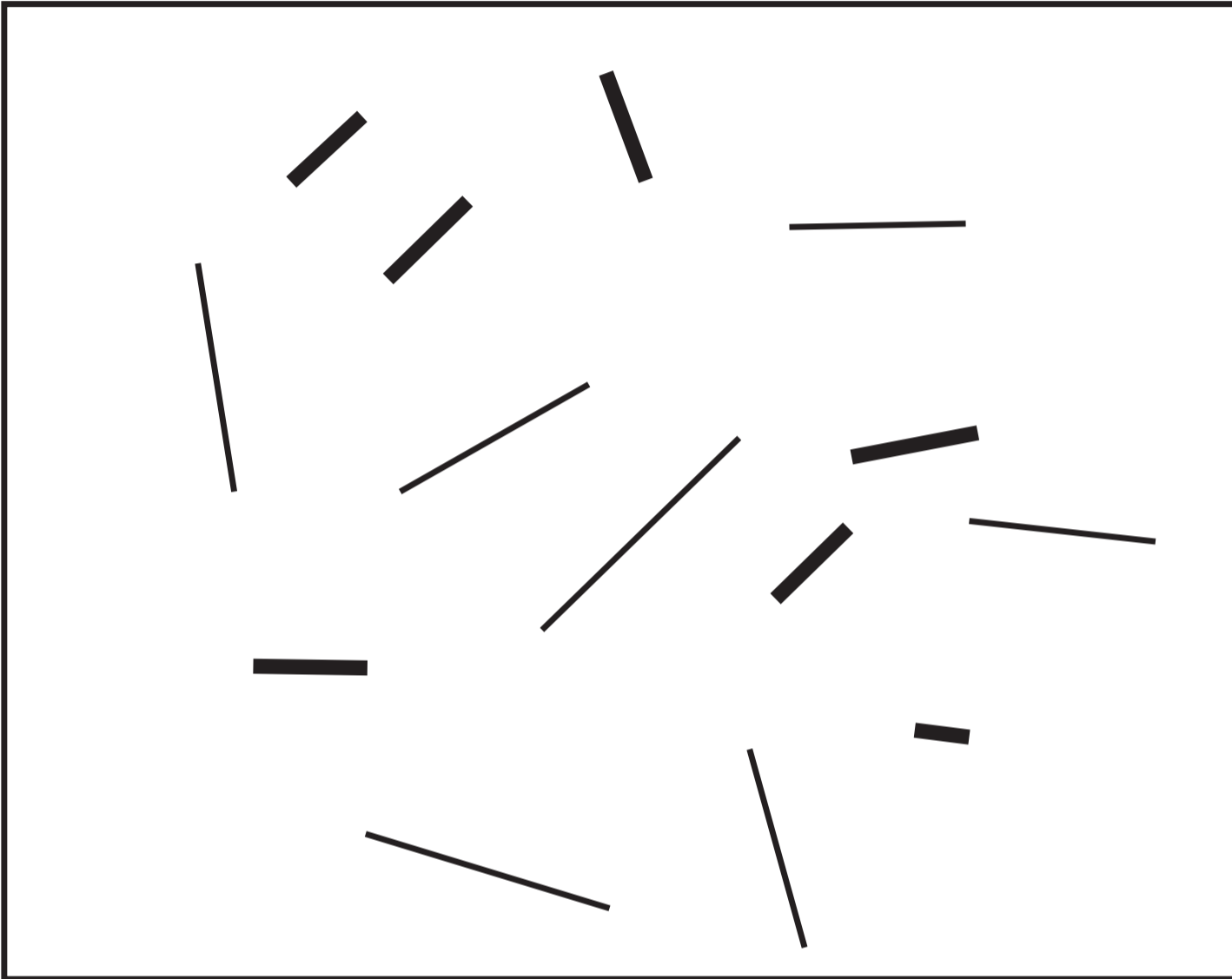


Question 6(b)

**KEY**  
----- container empty  
———— container full



## Question 7(a)



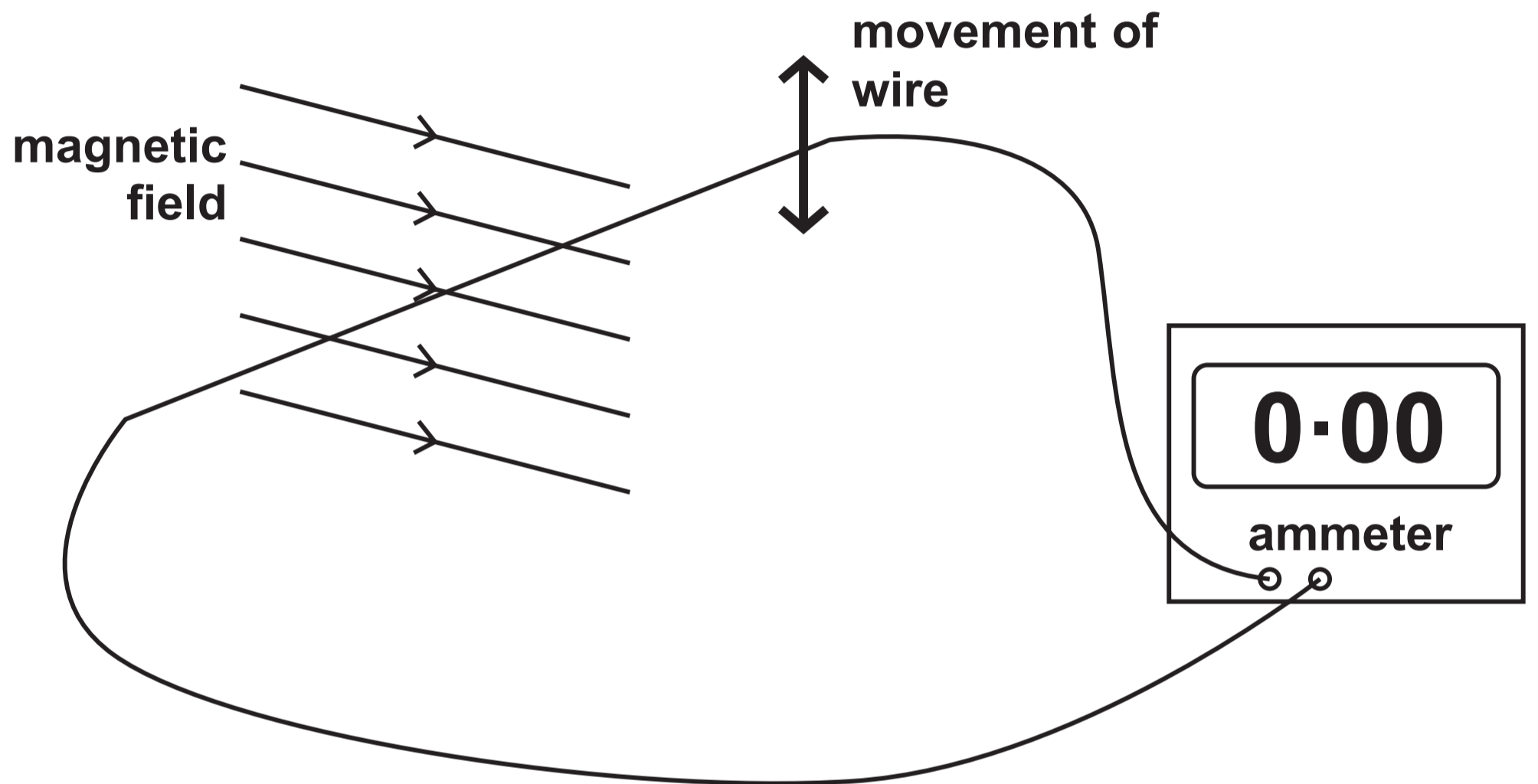
## Question 7(b)(ii)



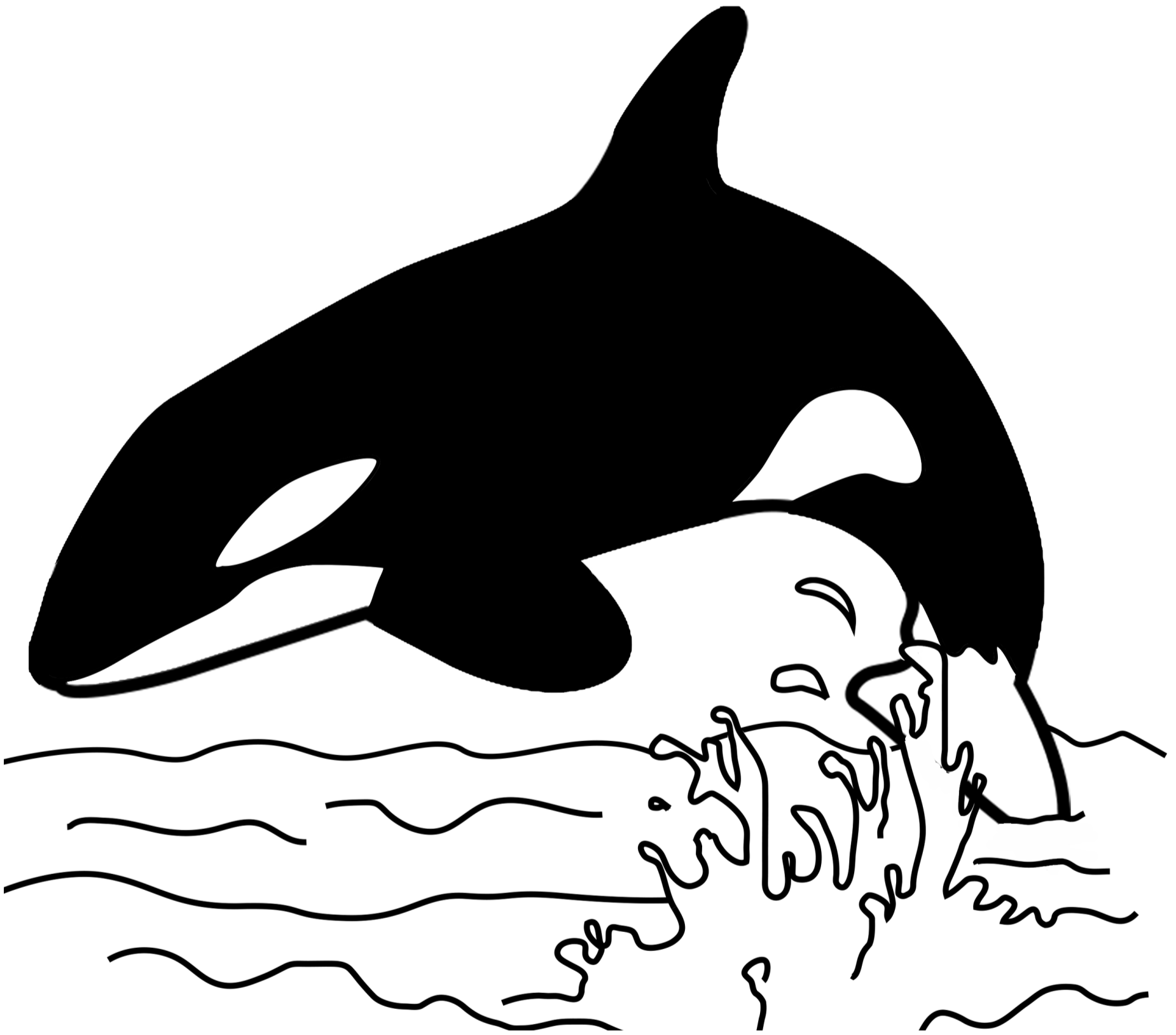
## Question 7(b)(ii) (Spare copy)



## Question 8(b)

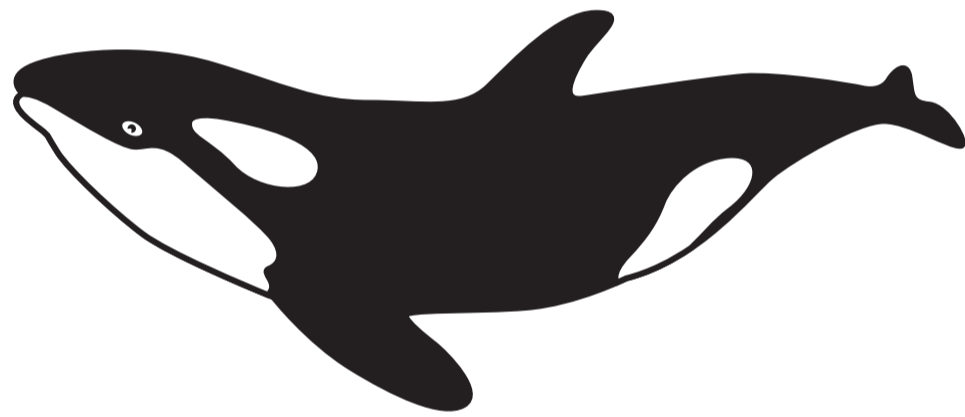


Question 9(a)

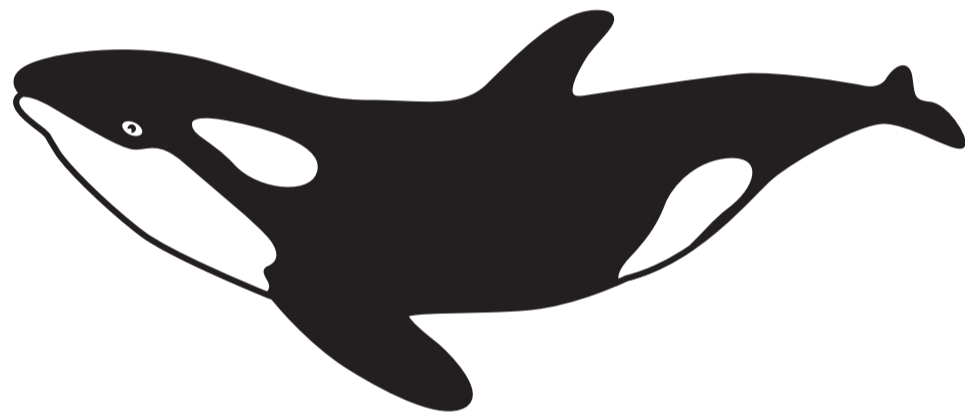




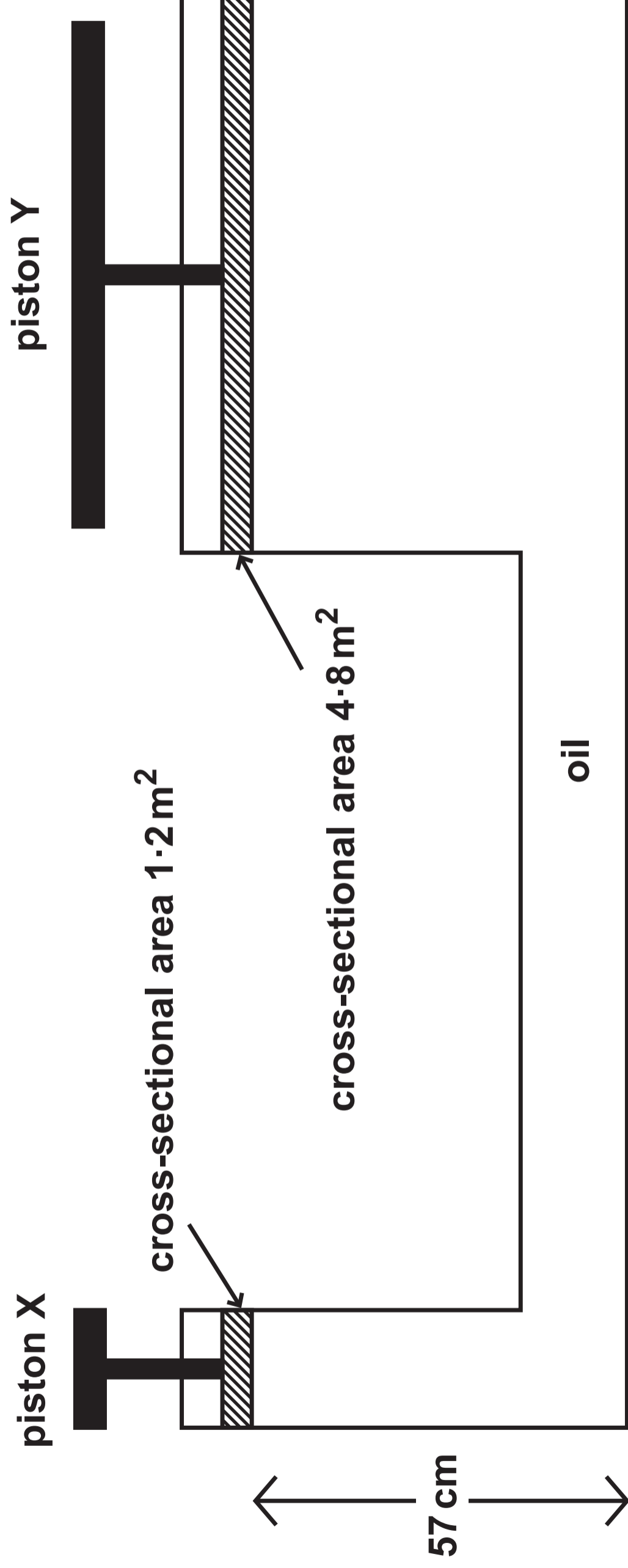
Question 9(b)



Question 9(b) (Spare copy)



Question 10



## Question 10(c)

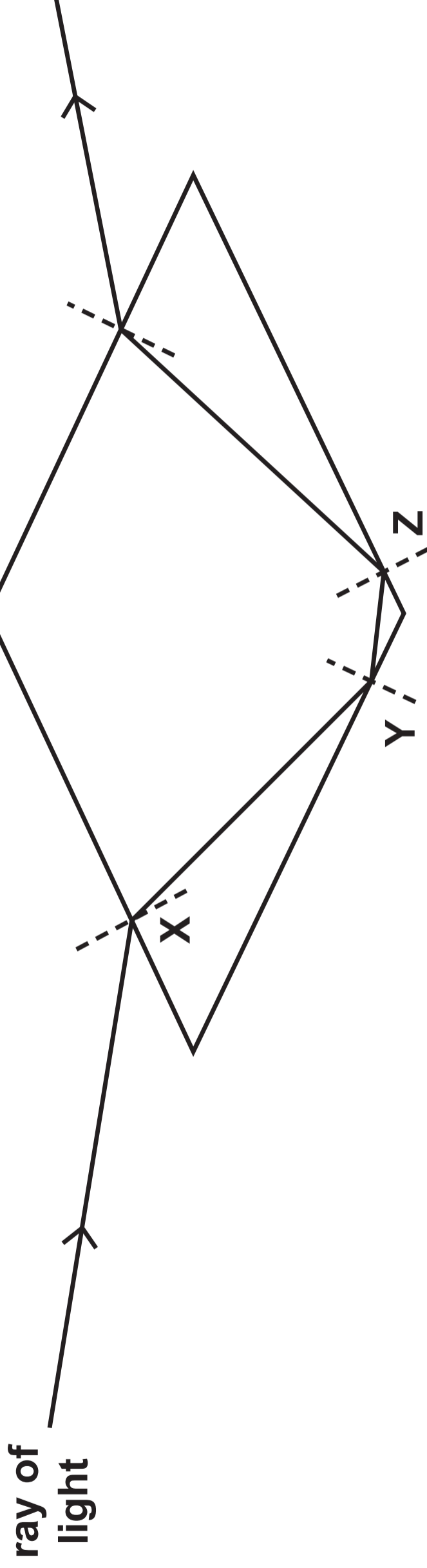
<b>Energy store</b>	<b>Change</b>
<b>gravitational potential energy of piston X</b>	
<b>gravitational potential energy of piston Y</b>	
<b>chemical energy of piston Y</b>	
<b>kinetic energy of piston Y</b>	

## Question 10(c) (Spare copy)

<b>Energy store</b>	<b>Change</b>
<b>gravitational potential energy of piston X</b>	
<b>gravitational potential energy of piston Y</b>	
<b>chemical energy of piston Y</b>	
<b>kinetic energy of piston Y</b>	

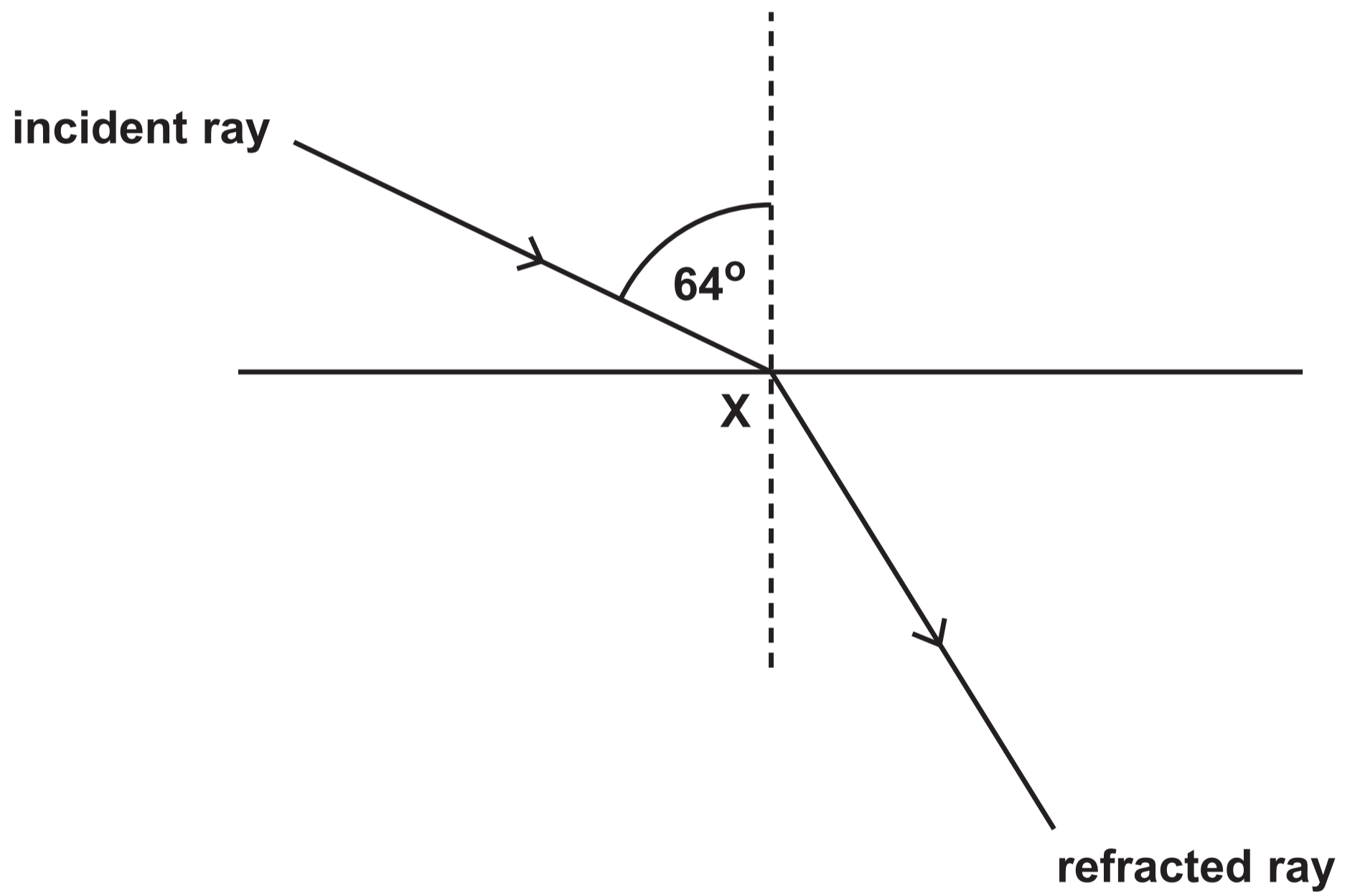
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DIAGRAM 1



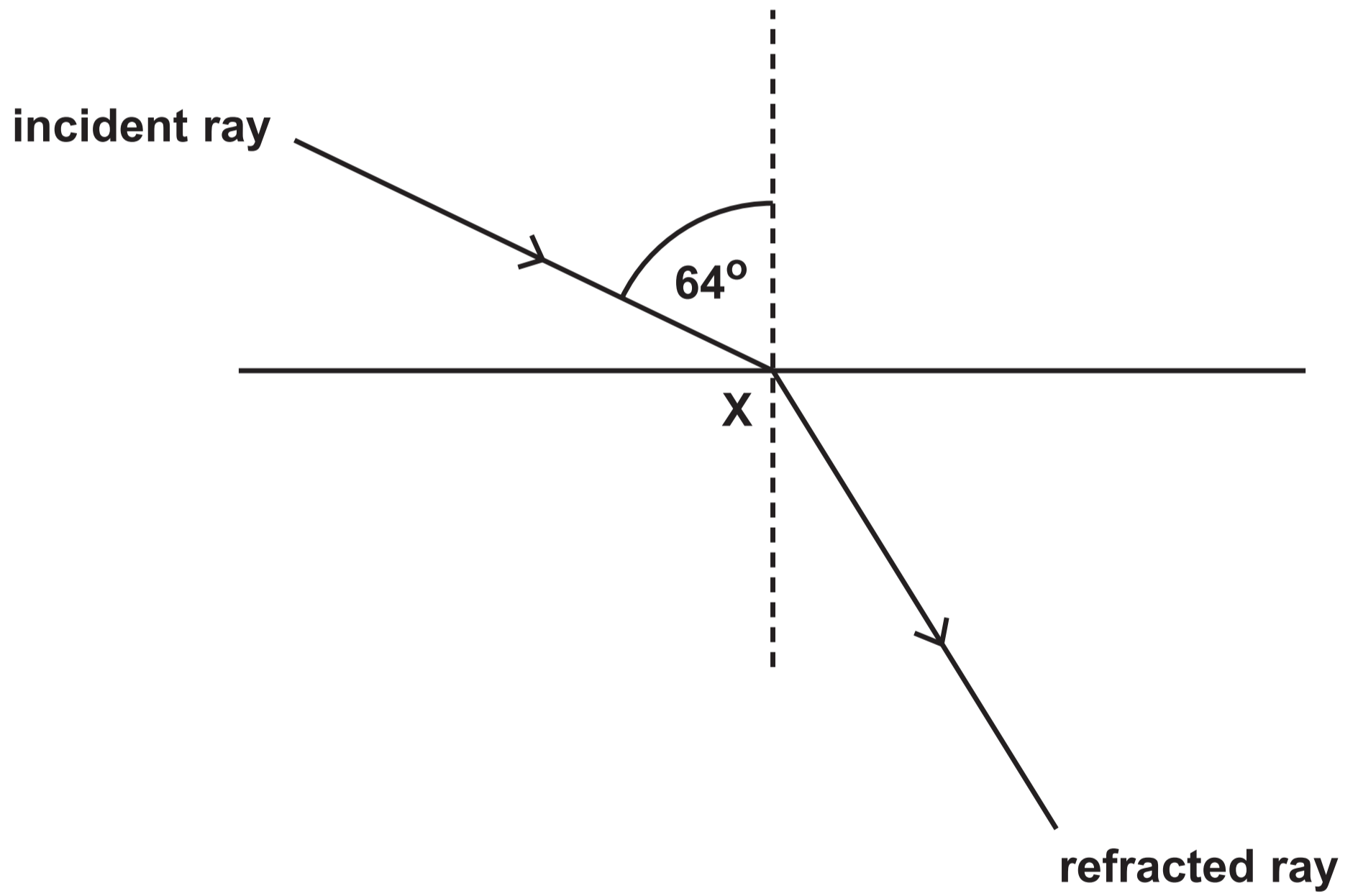
## Question 11(a)(i)

DIAGRAM 2



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

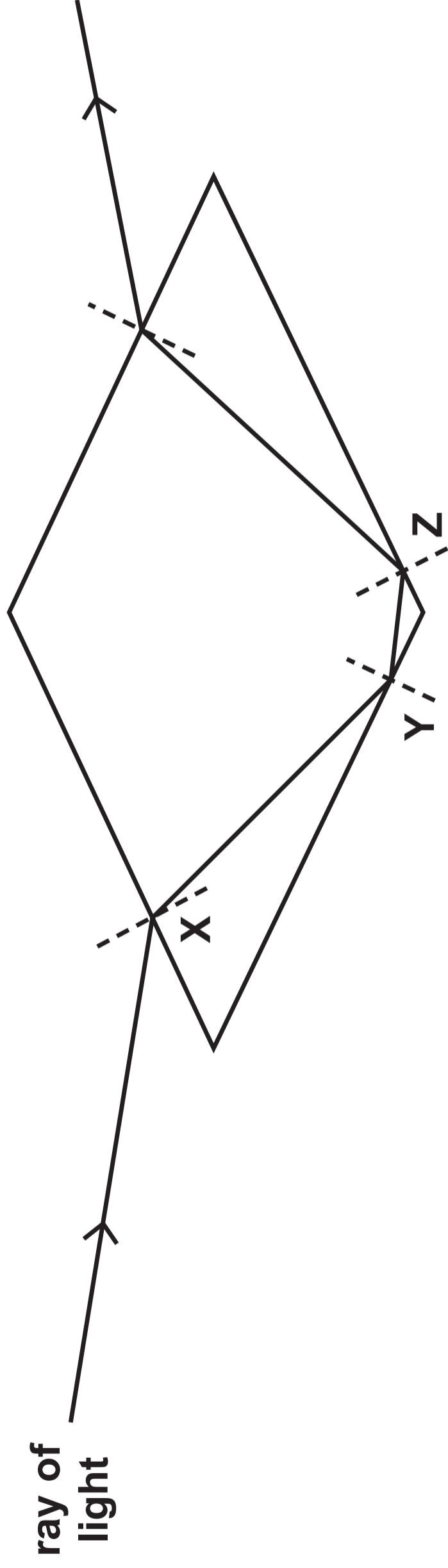
DIAGRAM 2





Question 11(b)

not to scale



**Question 9(a)**

**(Source: © Alexander Baumann/Shutterstock)**

**Question 9(b)**

**(Source: © Eugenia Petrovskaya/Shutterstock)**