

Paper Reference(s)    1PH0/1F  
Pearson Edexcel Level 1/Level 2 GCSE (9–1)

Physics  
PAPER 1  
Foundation Tier

Wednesday 22 May 2024 – Morning

Time: 1 hour 45 minutes

Diagram Booklet

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

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

Surname					
Other names					
Centre Number					
Candidate Number					

## **INSTRUCTIONS**

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

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## Question 1(a)

**amplitude**

**frequency**

**longitudinal**

**speed**

**transverse**

**wavelength**

FIGURE 1

radio waves	microwaves	infrared	visible light	ultraviolet	x-rays	gamma rays
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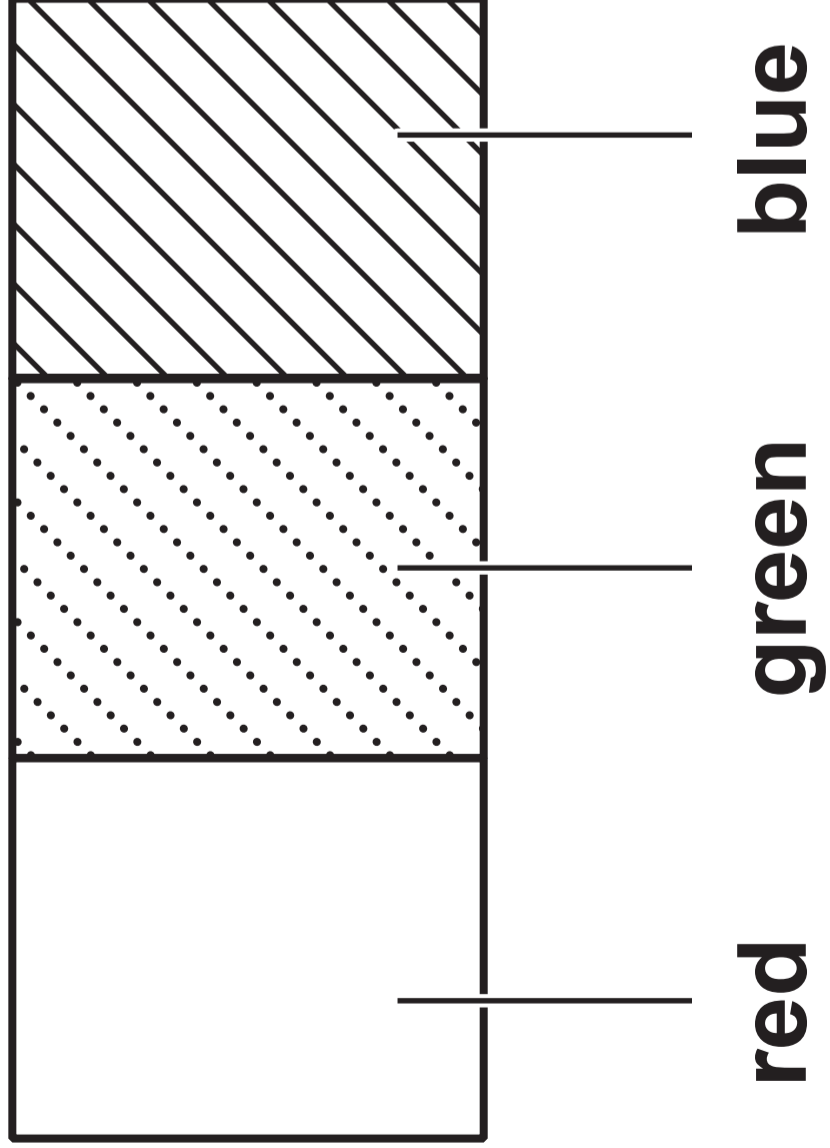
FIGURE 2

Information	Type of electromagnetic radiation
emitted by bright objects AND can be detected by the human eye	
emitted by radioactive nuclei AND can be used to treat cancer	
produced in an aerial AND can be used for communication	
can cause skin cancer in humans AND can be used to detect forged banknotes	

# Question 2(a)

7

**FIGURE 3**



**FIGURE 4**

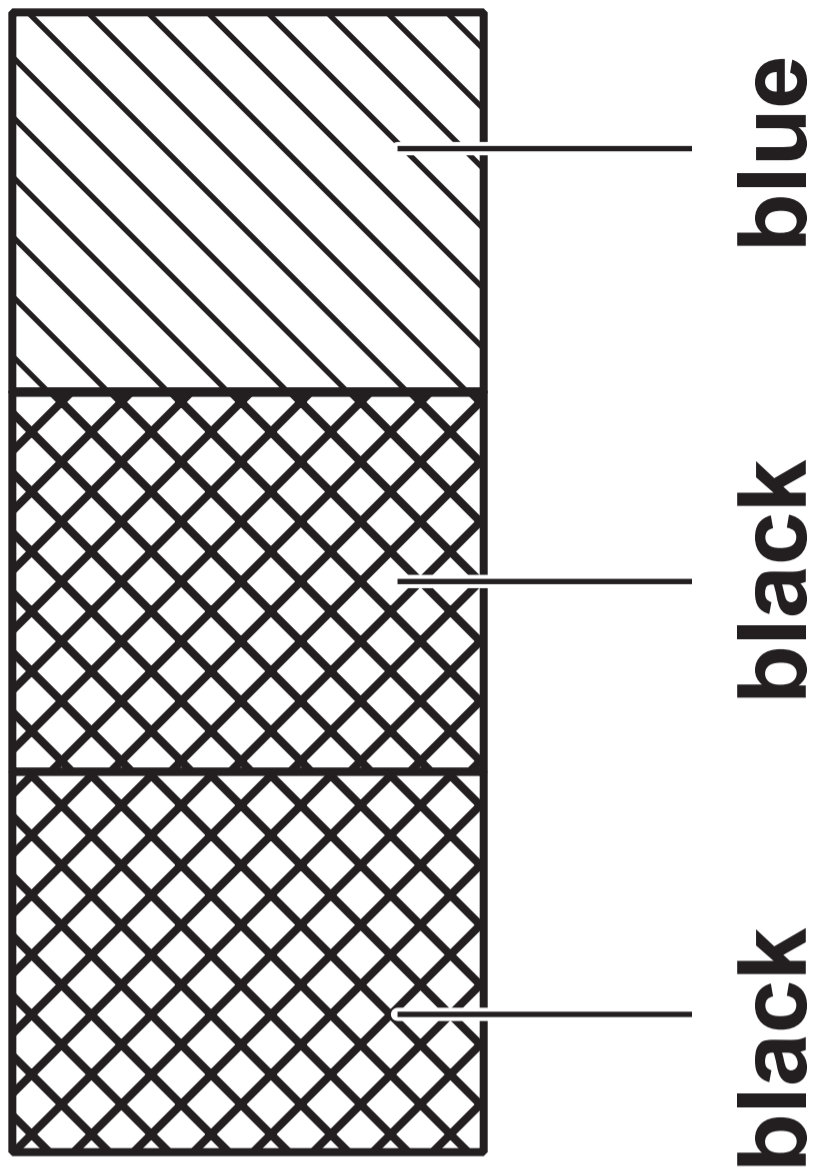
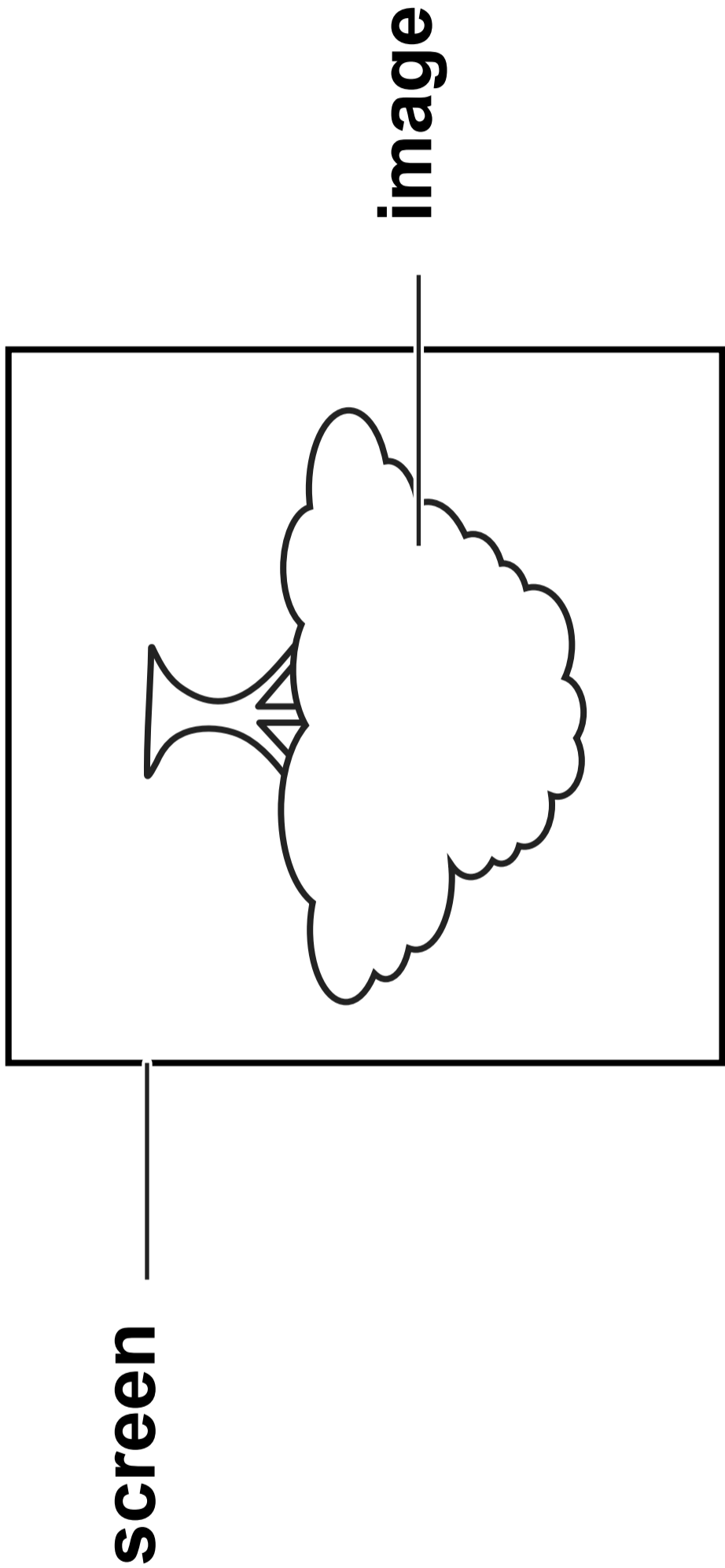


FIGURE 5



(continued on the next page)

2(b) continued.

student's descriptions of the image			correction
upside down	YES		
bigger than the actual tree	NO		
virtual	NO		

FIGURE 6

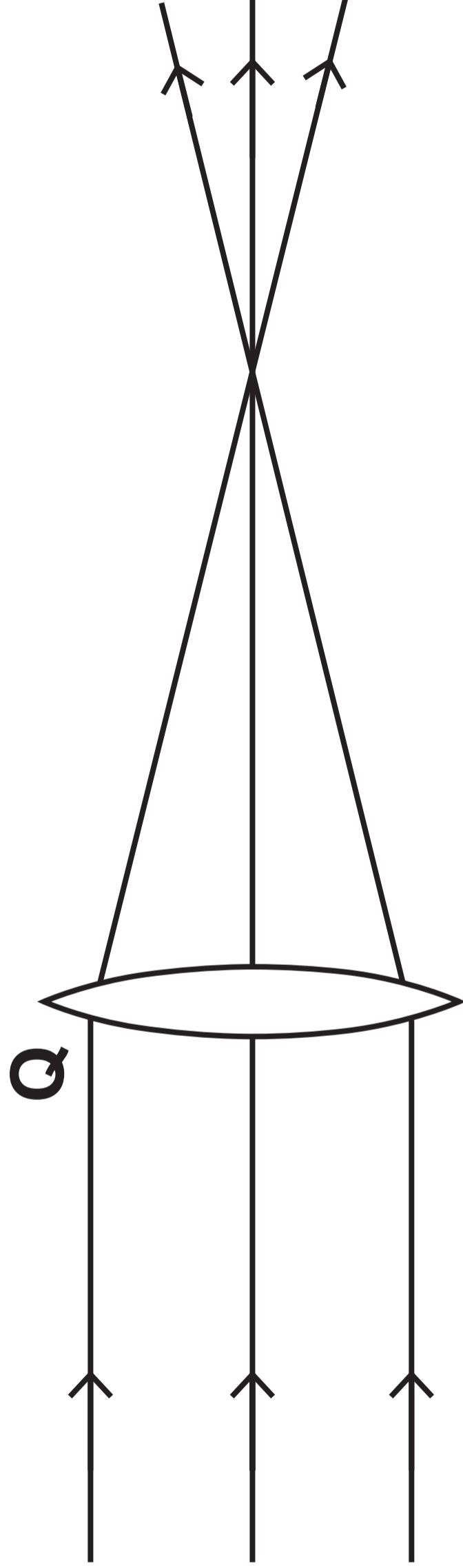
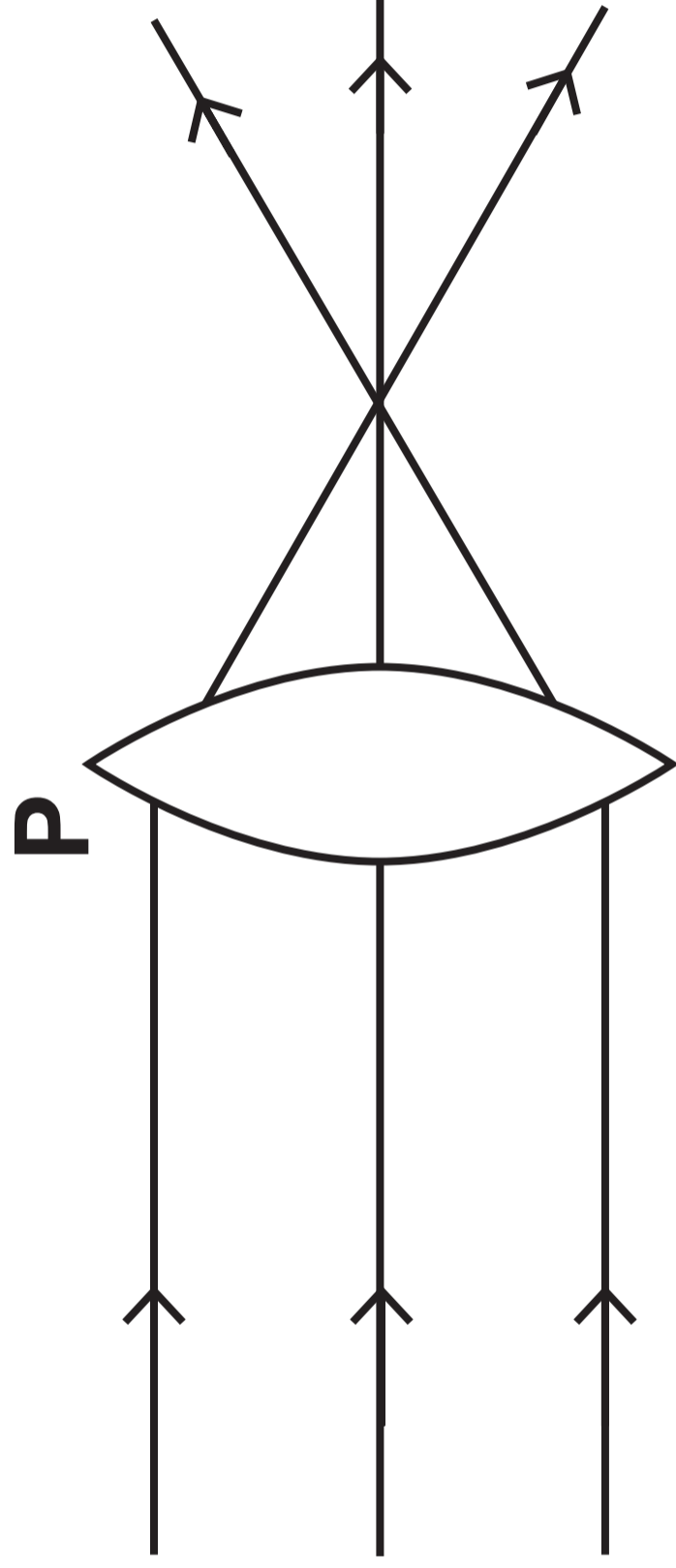
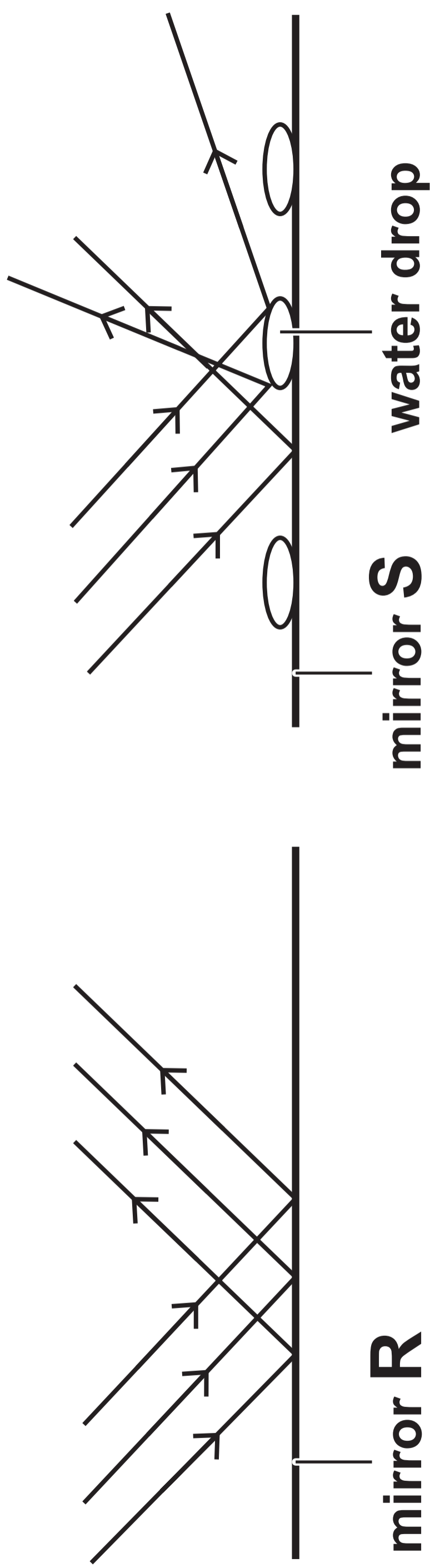
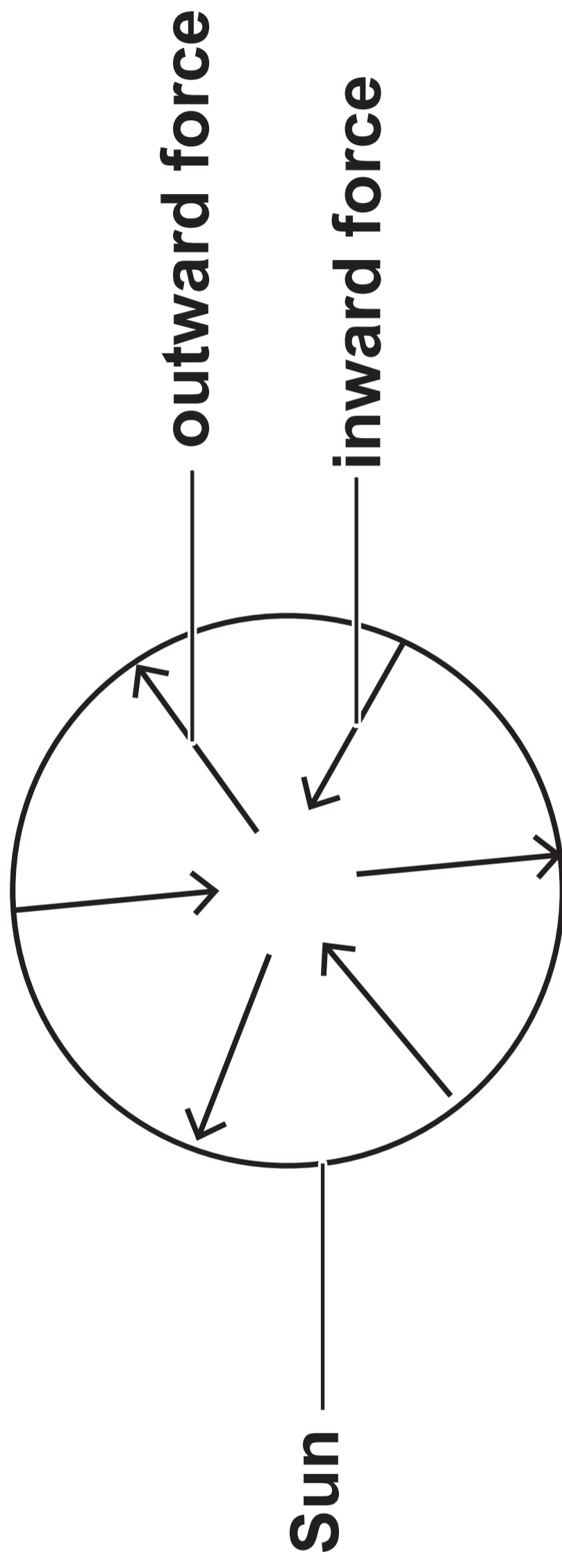


FIGURE 7

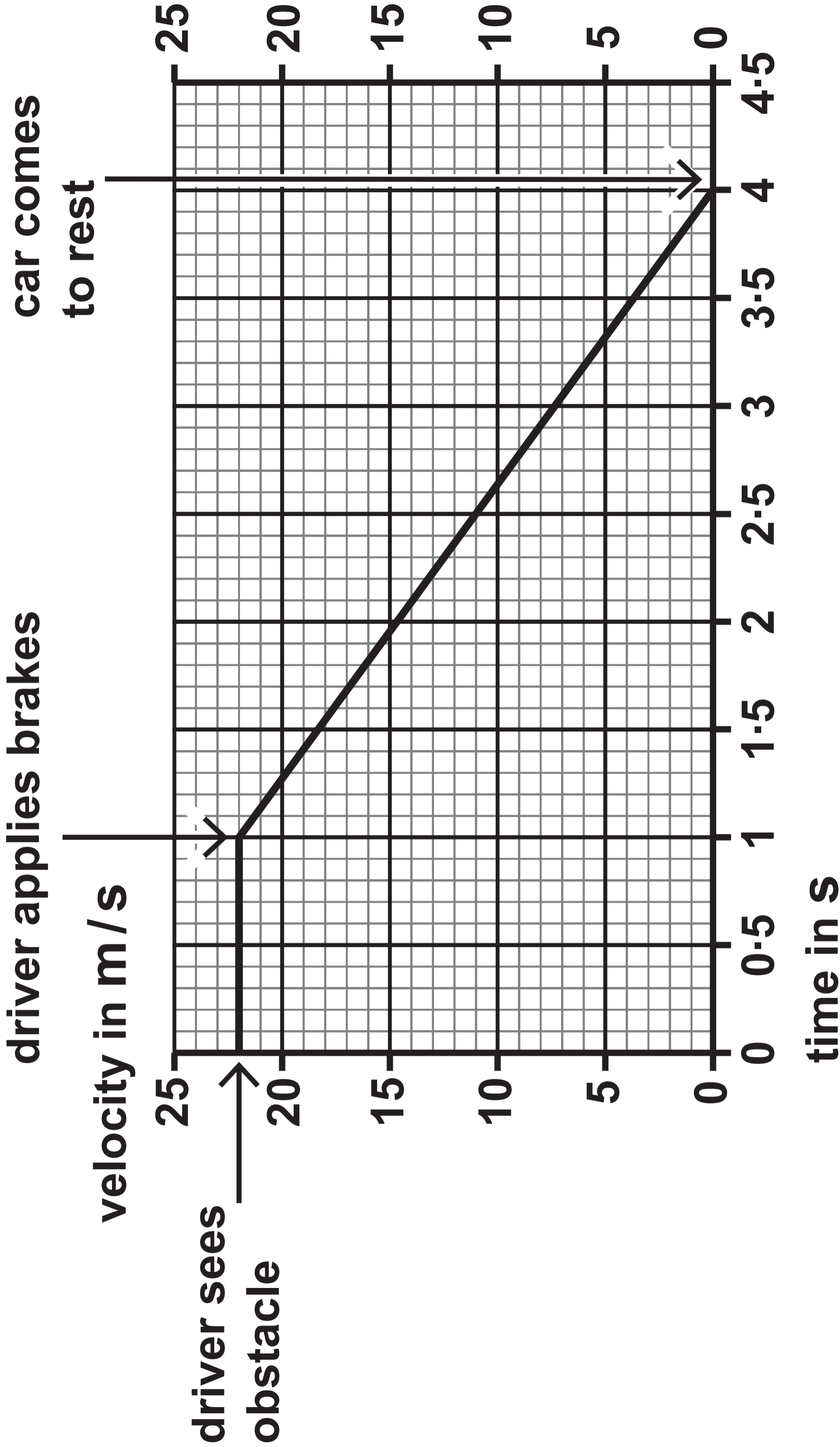


**FIGURE 8**



Question 4(a)

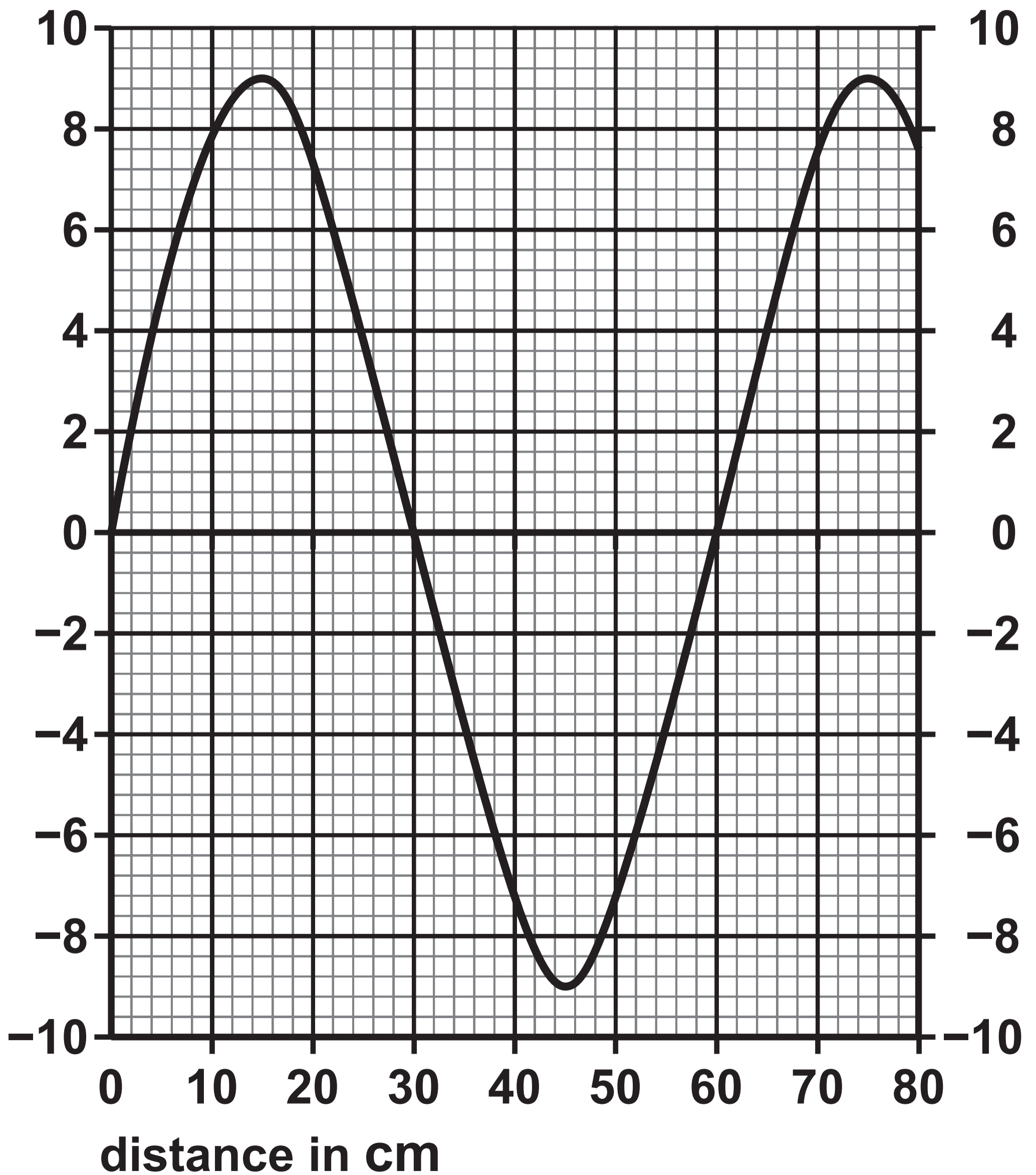
FIGURE 9

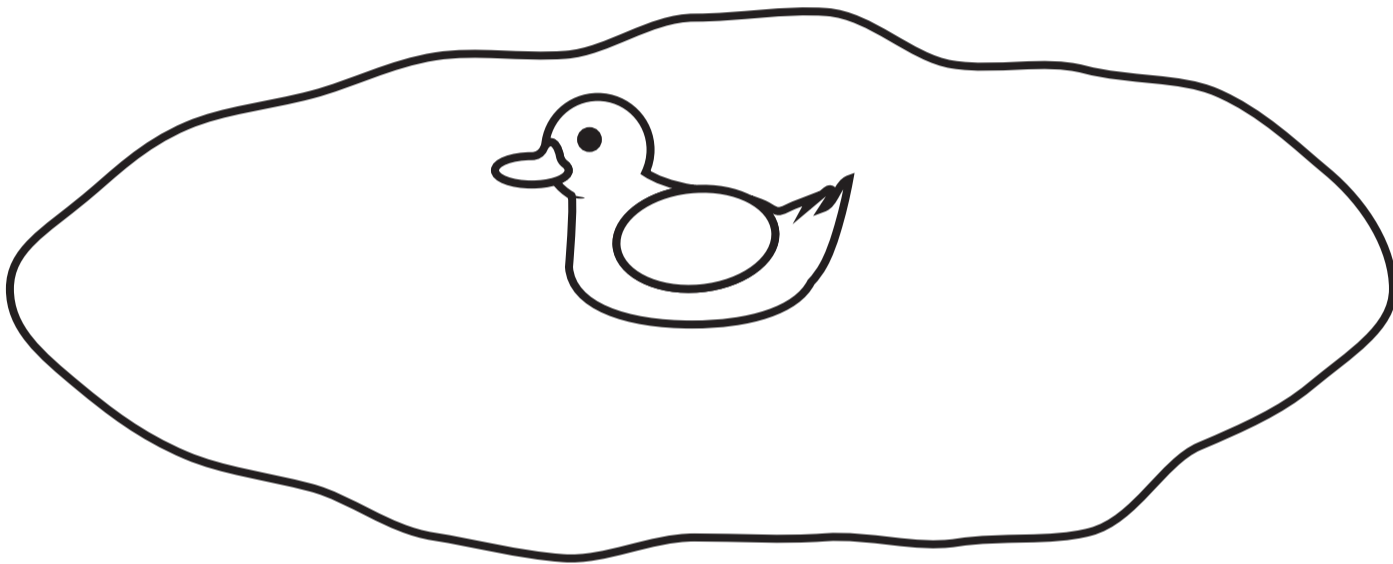


## Question 5(d)

FIGURE 10

vertical displacement  
of water in cm



**Question 5(e)(ii)****FIGURE 11**

Question 6

FIGURE 12

NOT TO SCALE

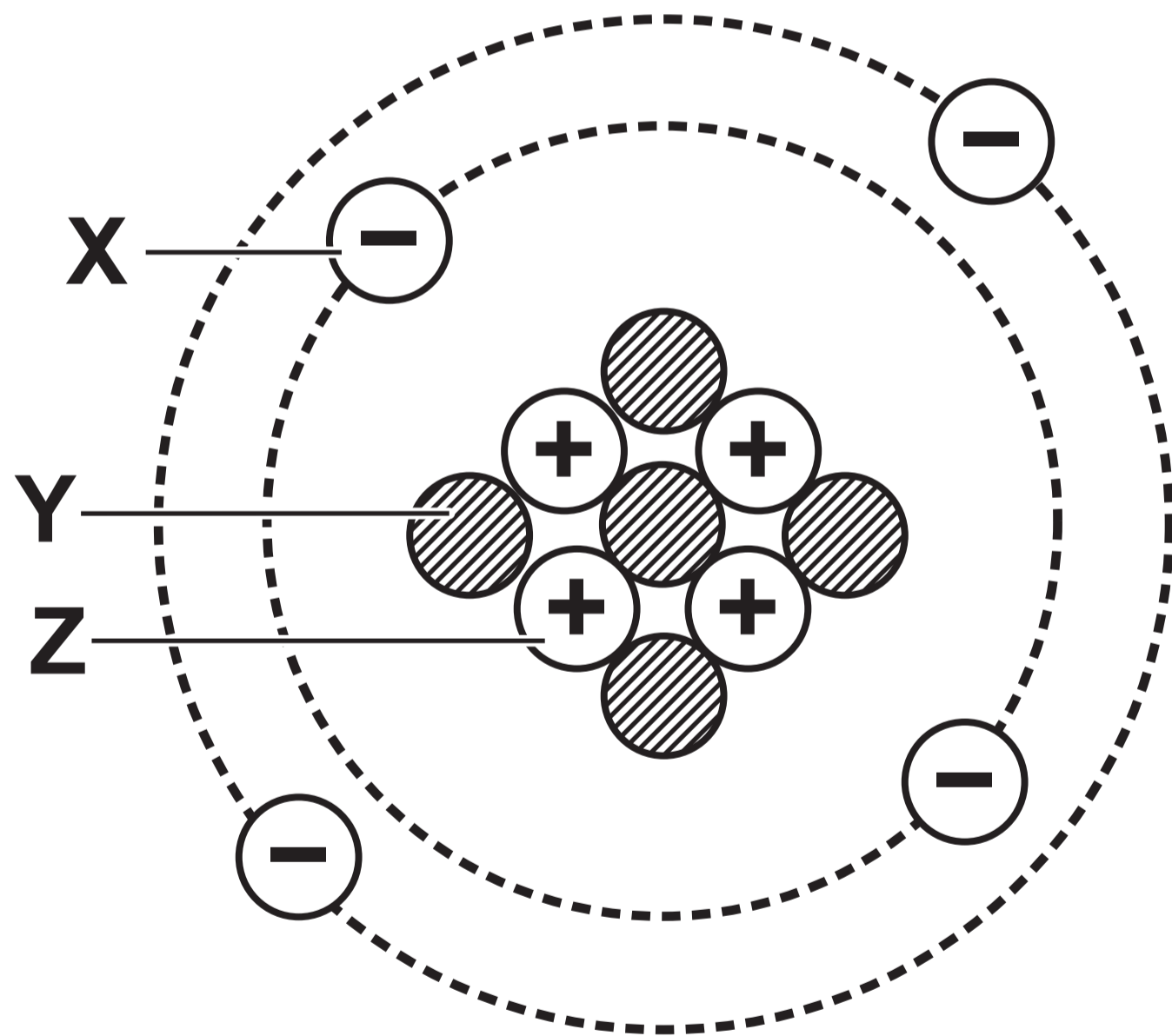


FIGURE 13

	1st measurement	2nd measurement	3rd measurement	4th measurement
activity in Bq	21	23	19	22

## Question 6(d)

FIGURE 14

mean detector reading  
in counts per second

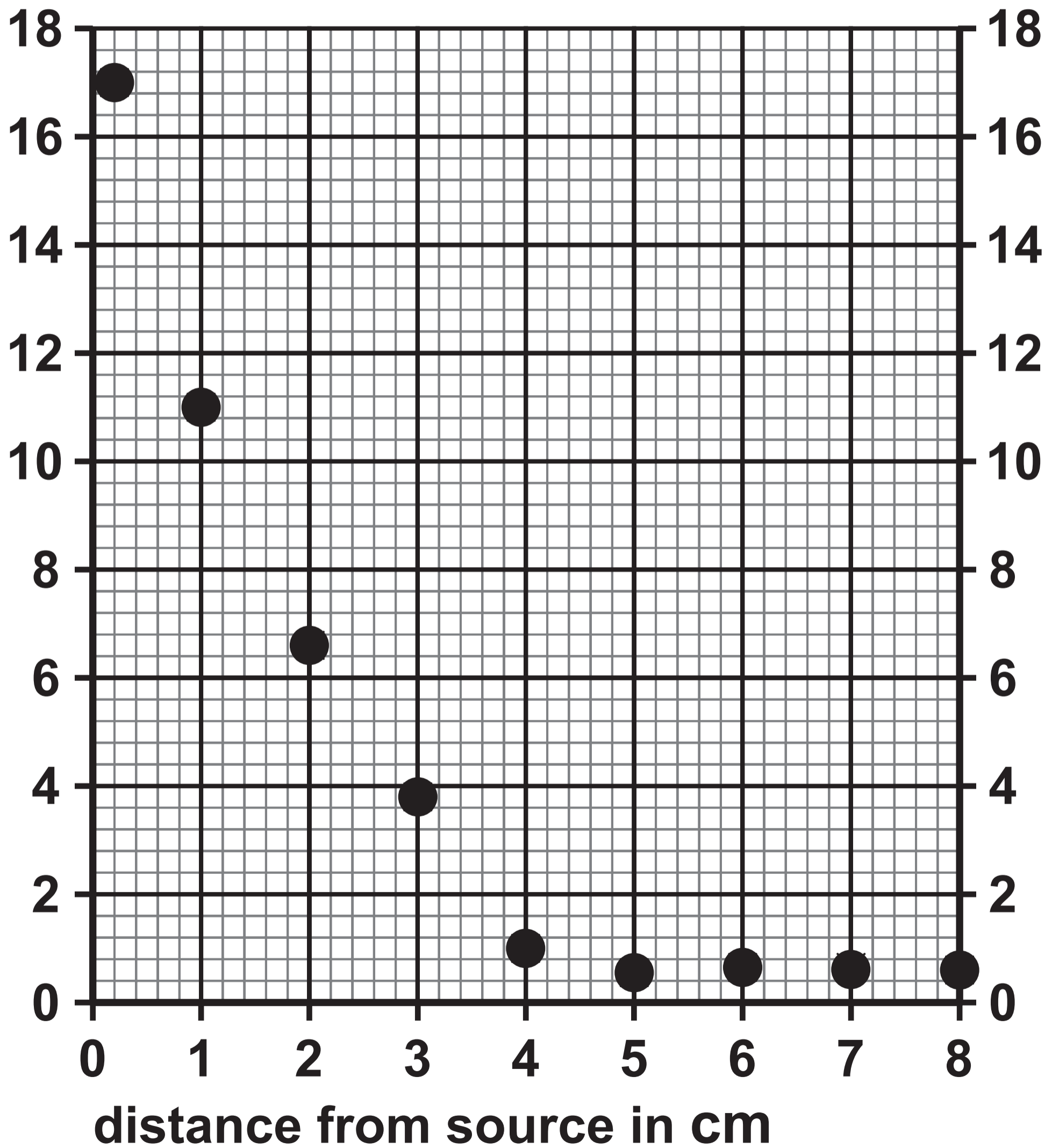


diagram A

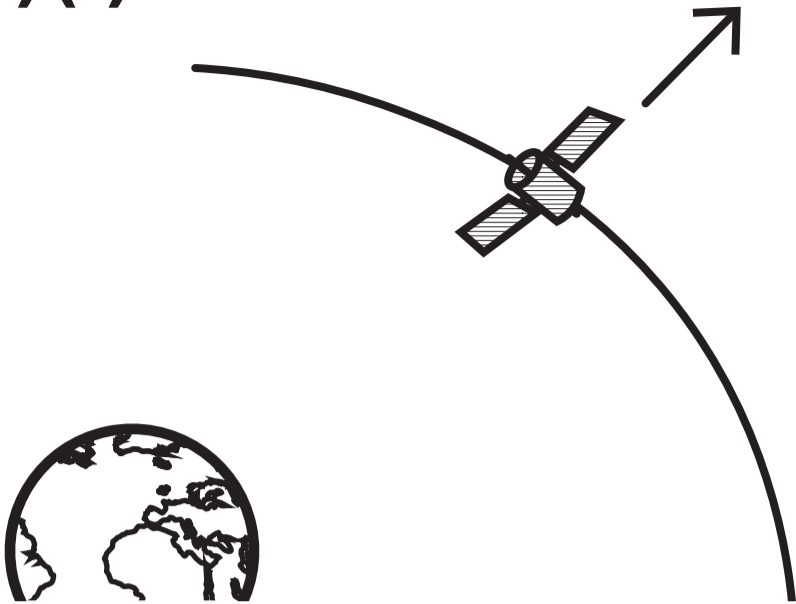


diagram B

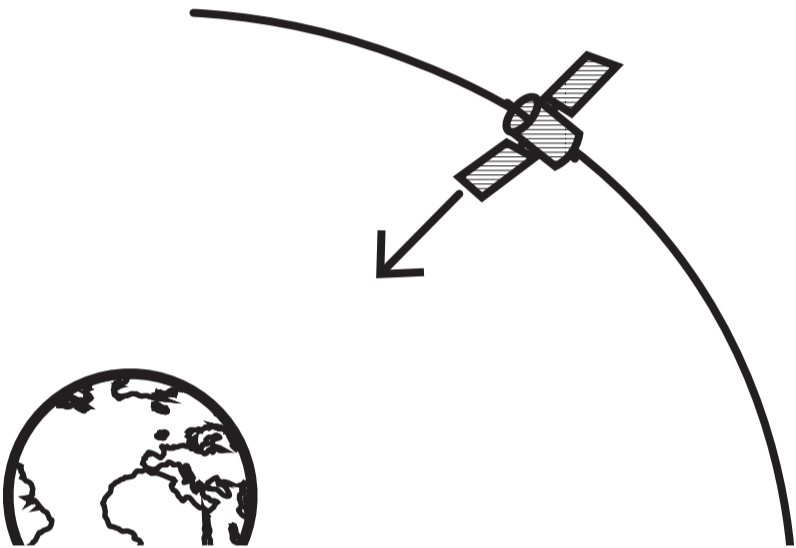


diagram C

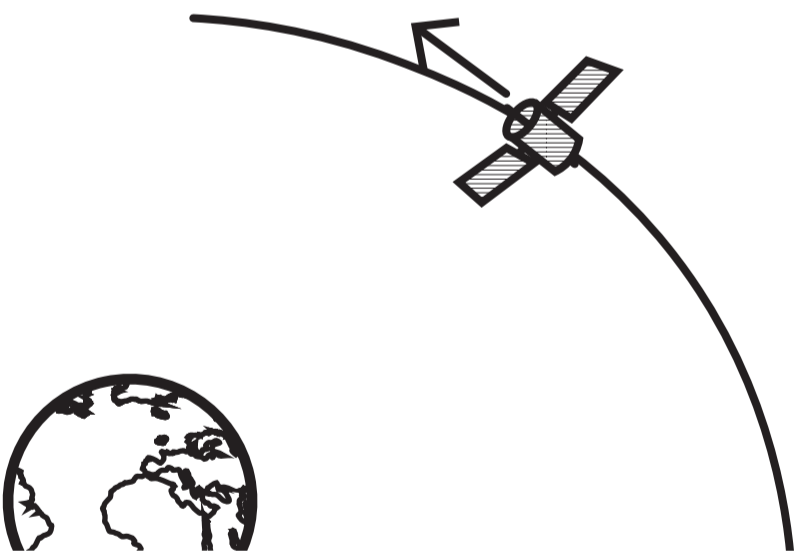


diagram D

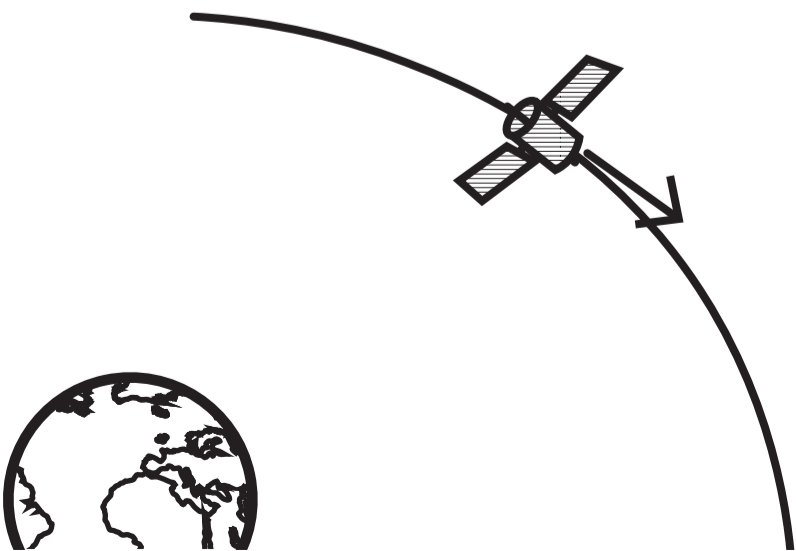


FIGURE 16

height above the  
Earth's surface in km

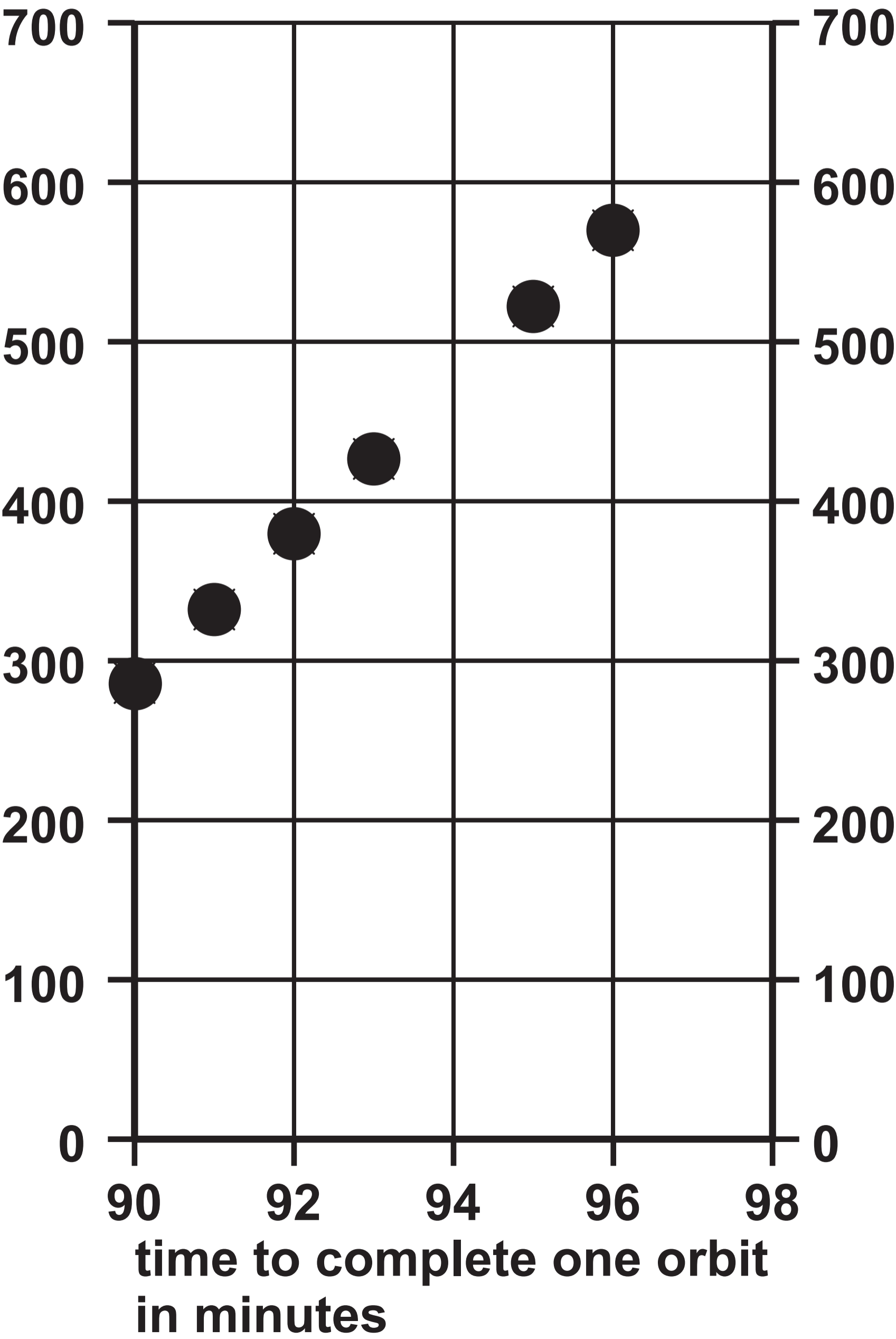


FIGURE 17

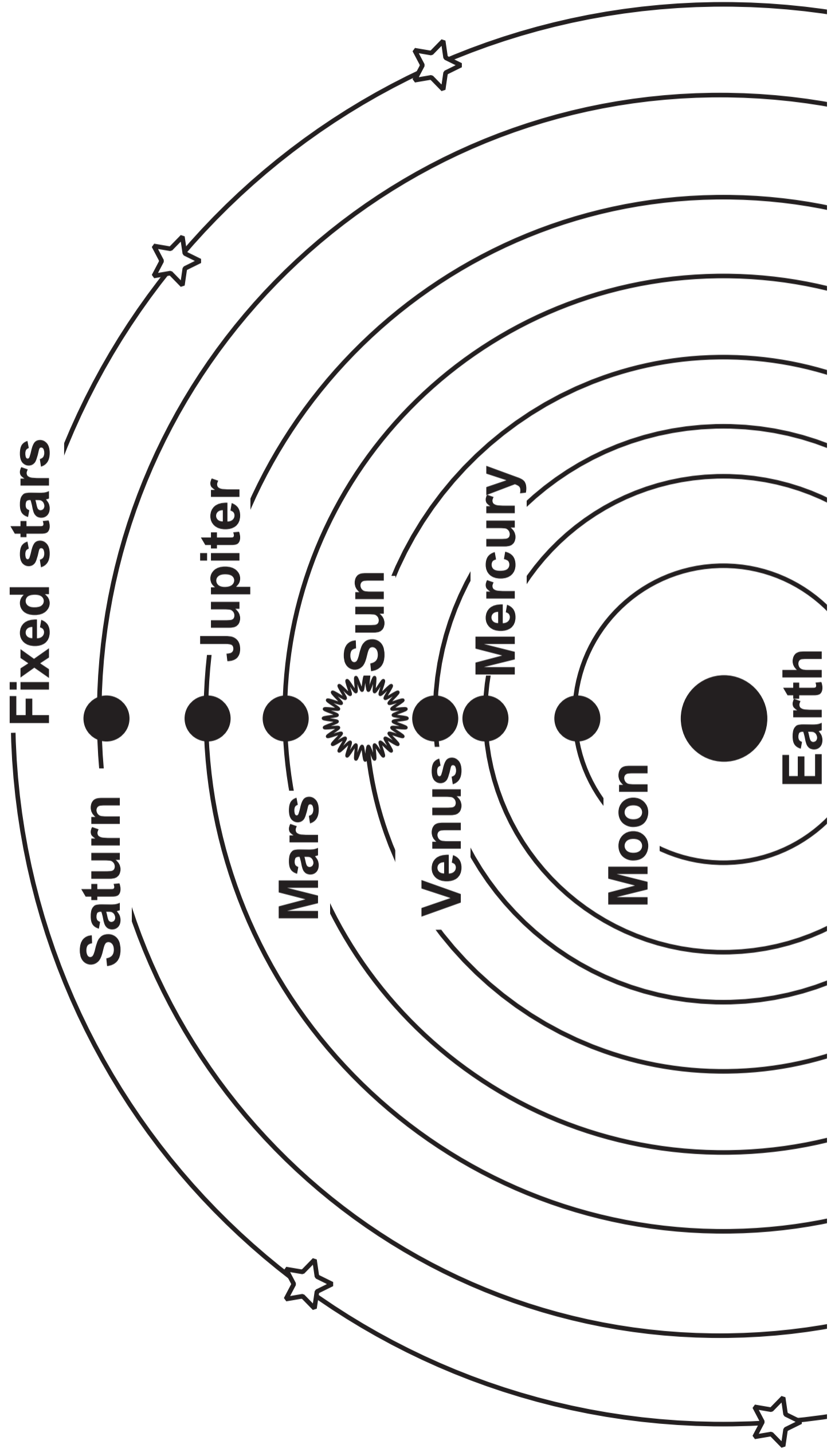


FIGURE 18

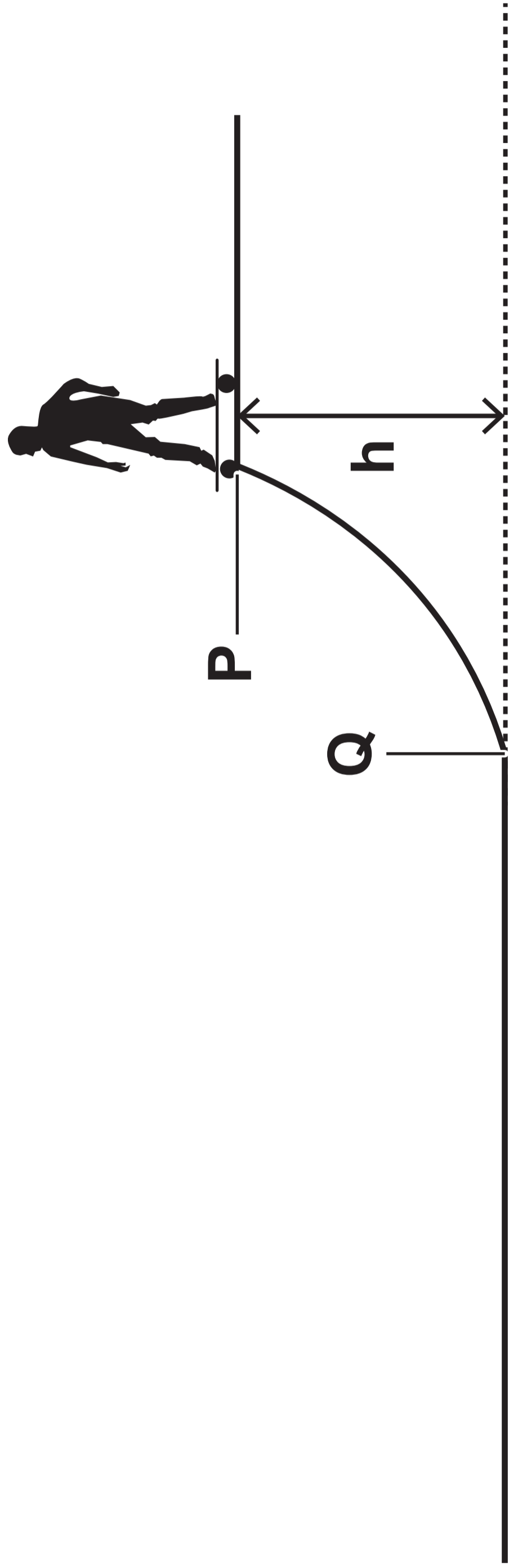


FIGURE 19

NOT TO SCALE

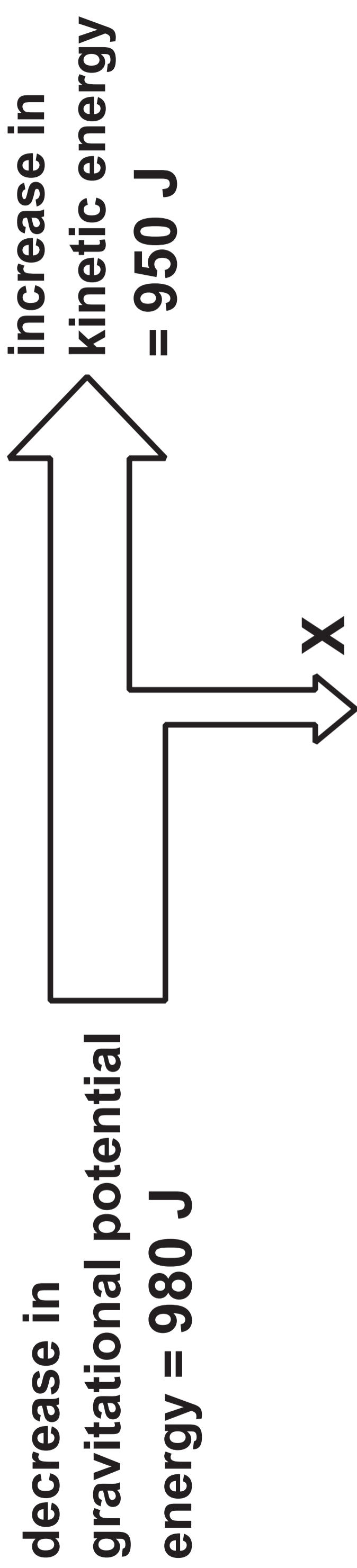


FIGURE 20

KEY  
—— M  
----- L

distance in m

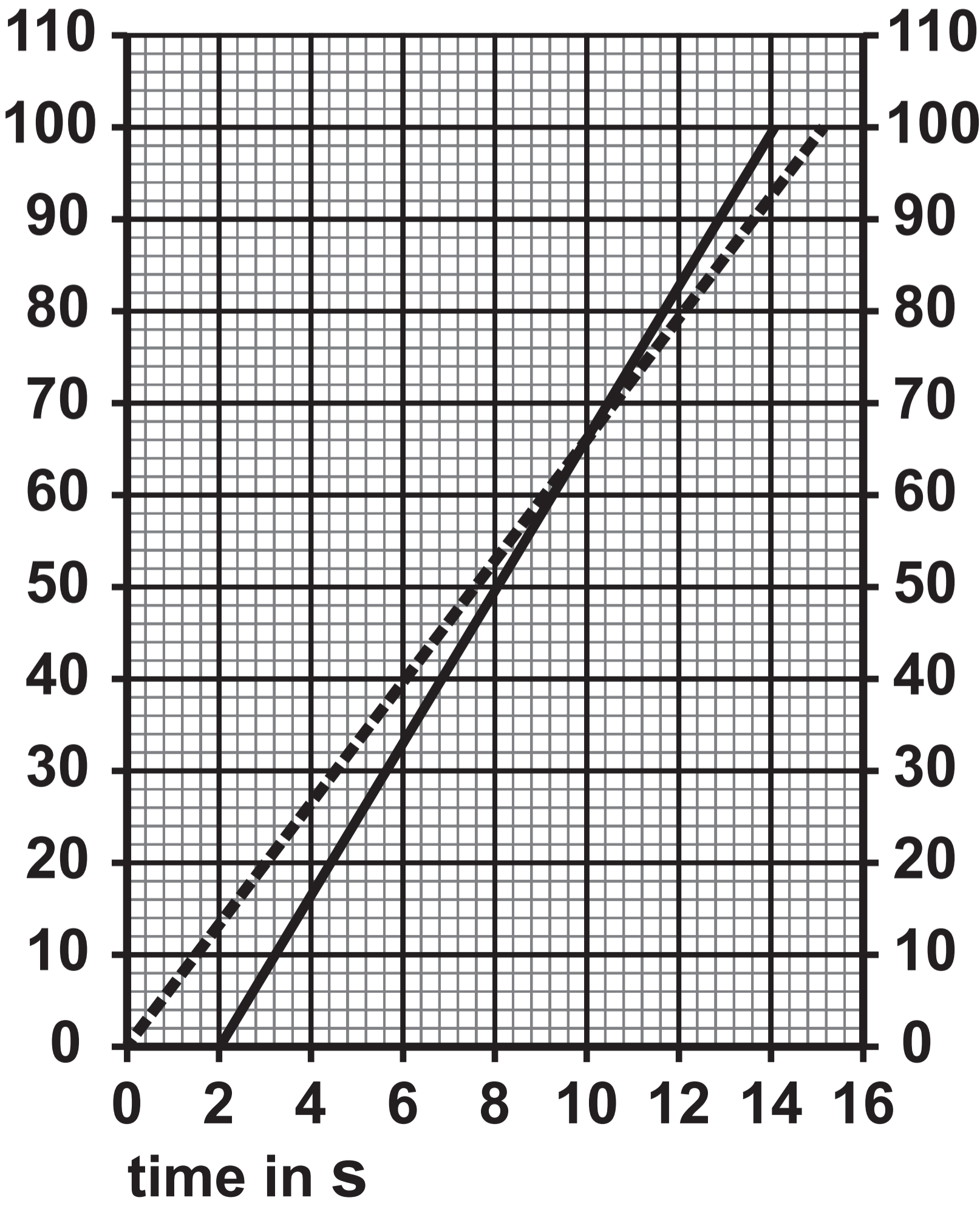
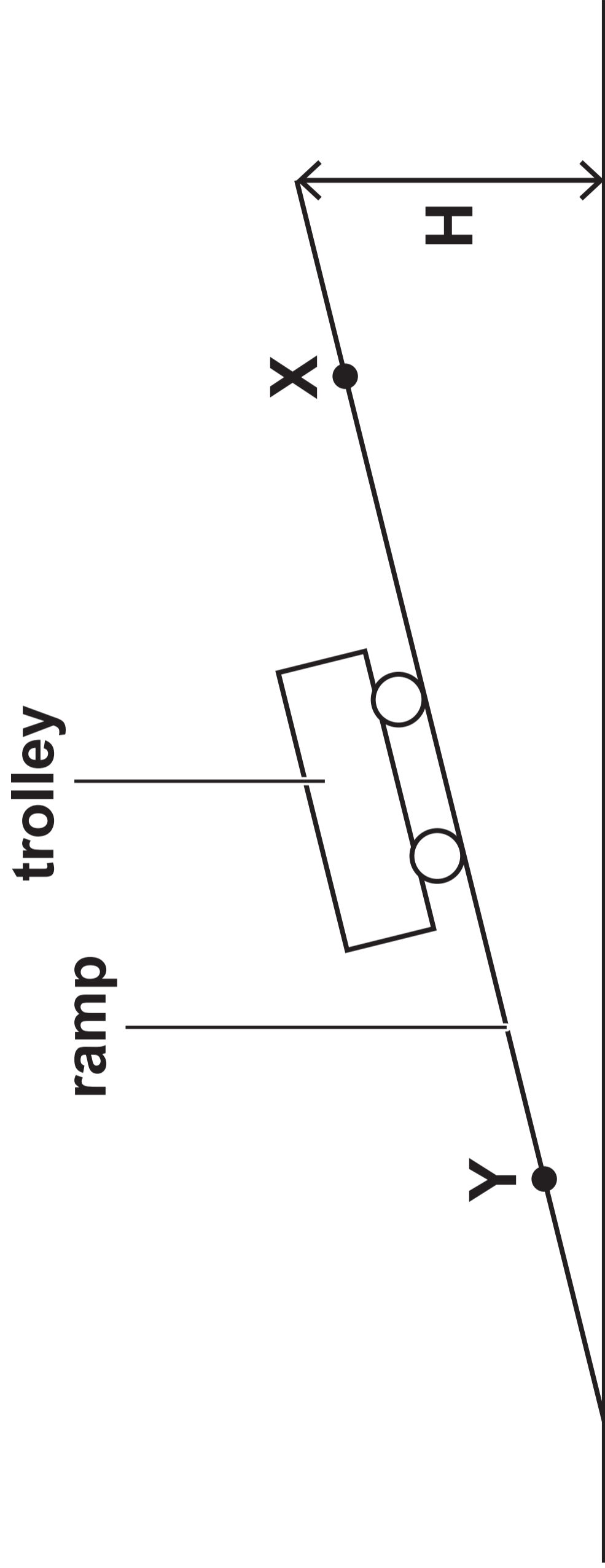
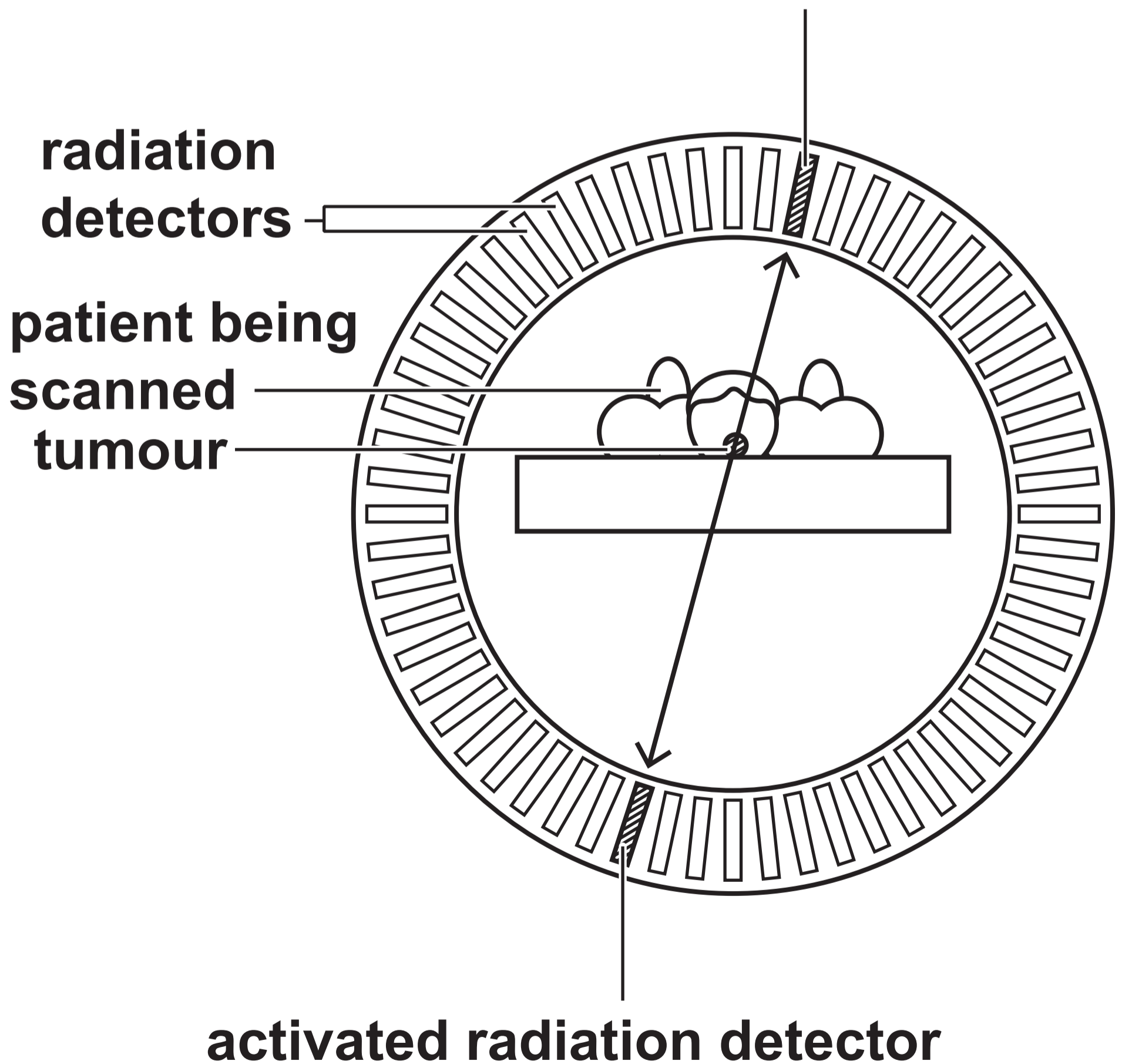


FIGURE 21



## Question 10(b)

**FIGURE 22****activated radiation detector**

## Question 10(d)

FIGURE 23

## KEY

..... isotope Q

—— isotope P

activity in Bq

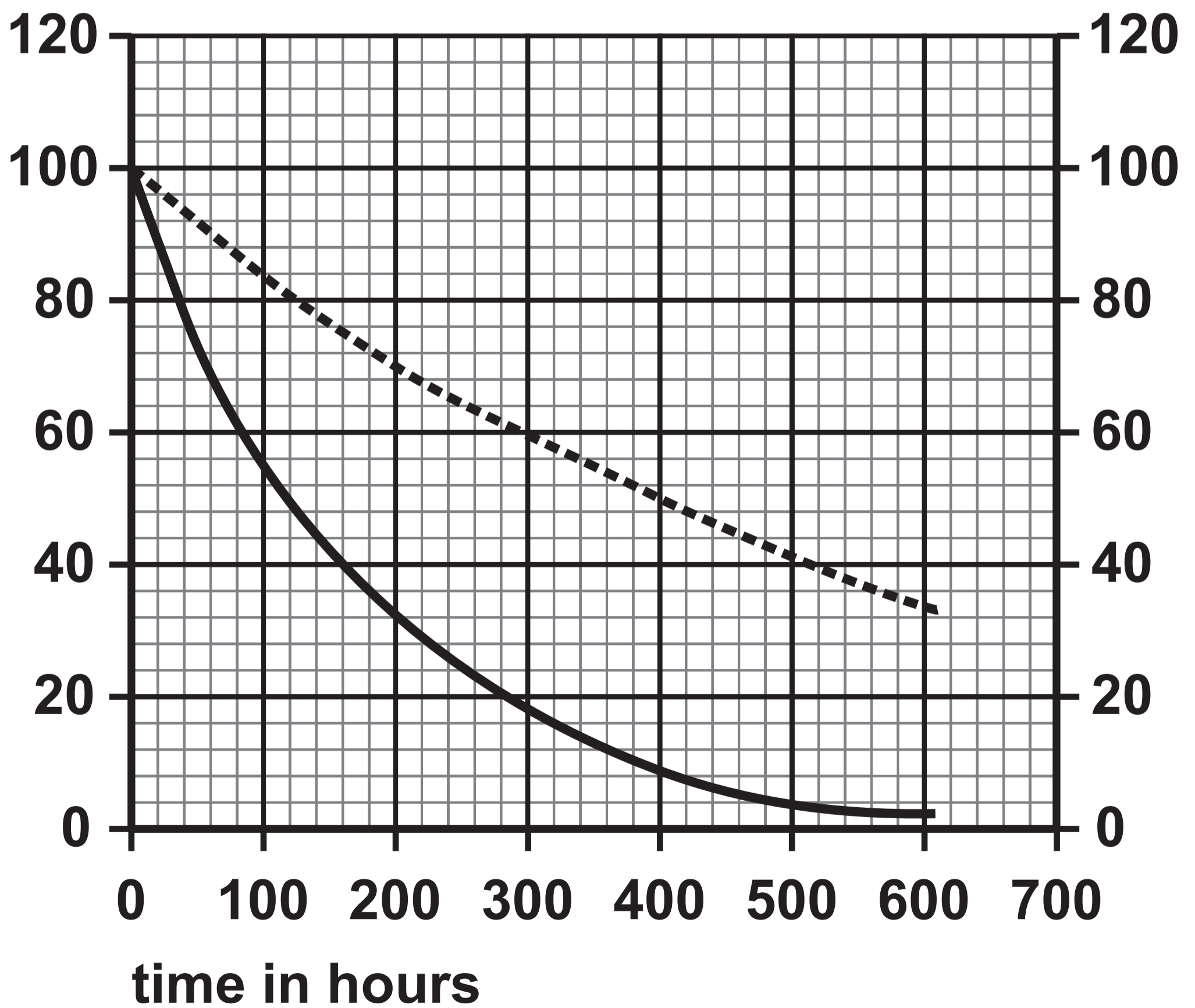


FIGURE 1

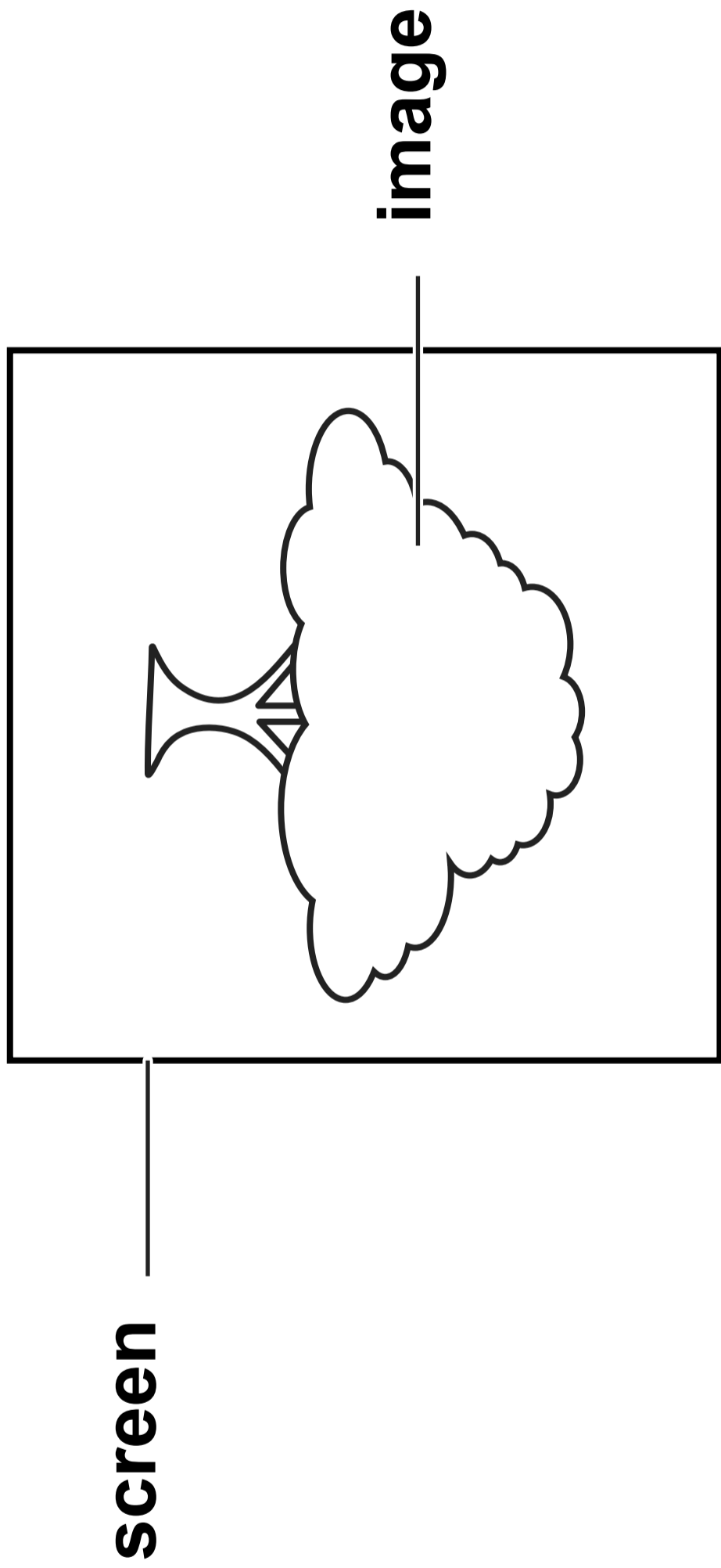
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FIGURE 2

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**FIGURE 5**



**(continued on the next page)**

2(b) continued.

student's descriptions of the image		correction
upside down	YES	
bigger than the actual tree	NO	
virtual	NO	

**Question 5(e)(ii)****FIGURE 11**