

**Paper Reference 1MA1/3H**  
**Pearson Edexcel**  
**Level 1/Level 2 GCSE (9–1)**

**Mathematics**  
**PAPER 3 (Calculator)**  
**Higher Tier**

**Monday 13 November 2023 – Morning**

**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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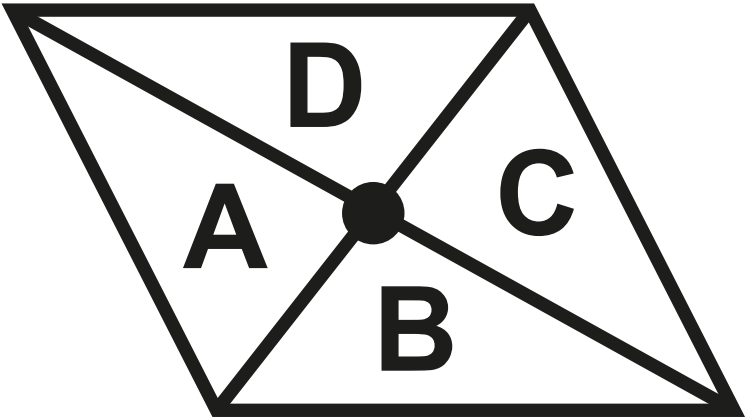
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**Spare copy**

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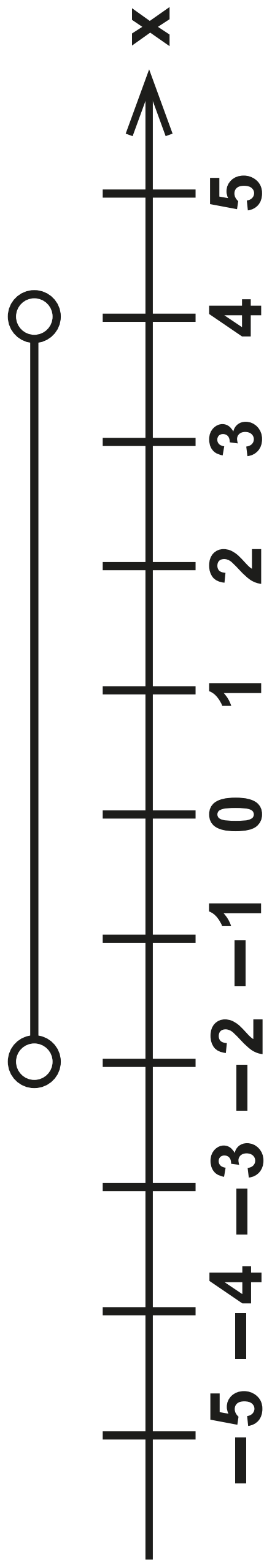
Question 2



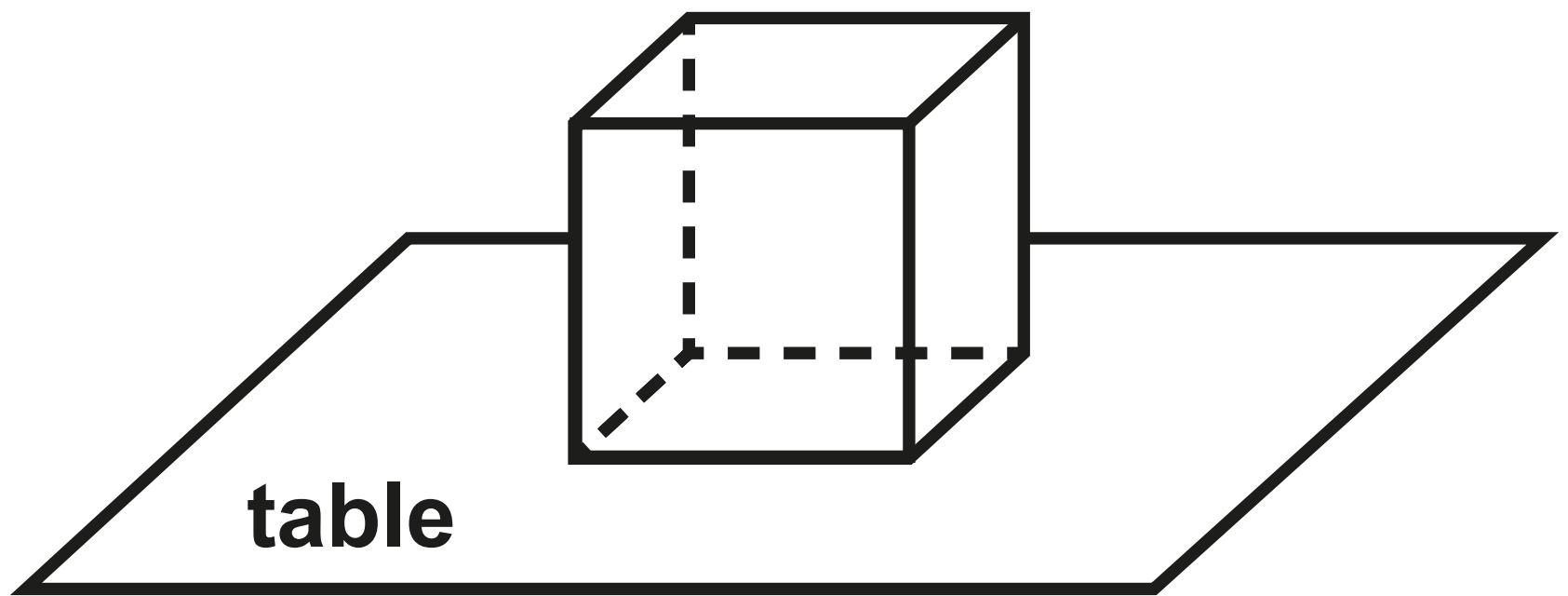
Question 3

Temperature (T°C)	Frequency
$10 < T \leq 15$	2
$15 < T \leq 20$	8
$20 < T \leq 25$	13
$25 < T \leq 30$	21
$30 < T \leq 35$	6

Question 4

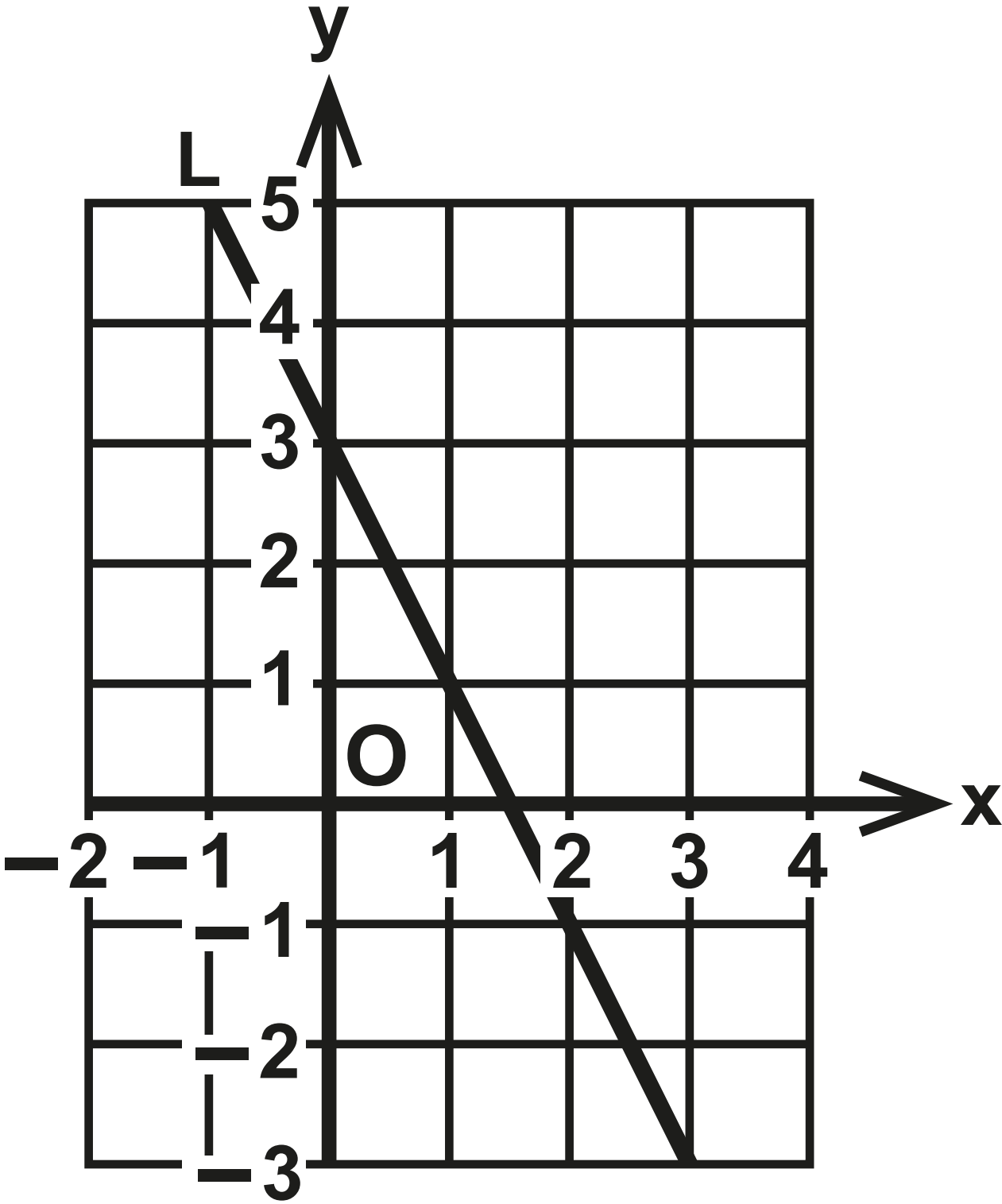


## Question 8

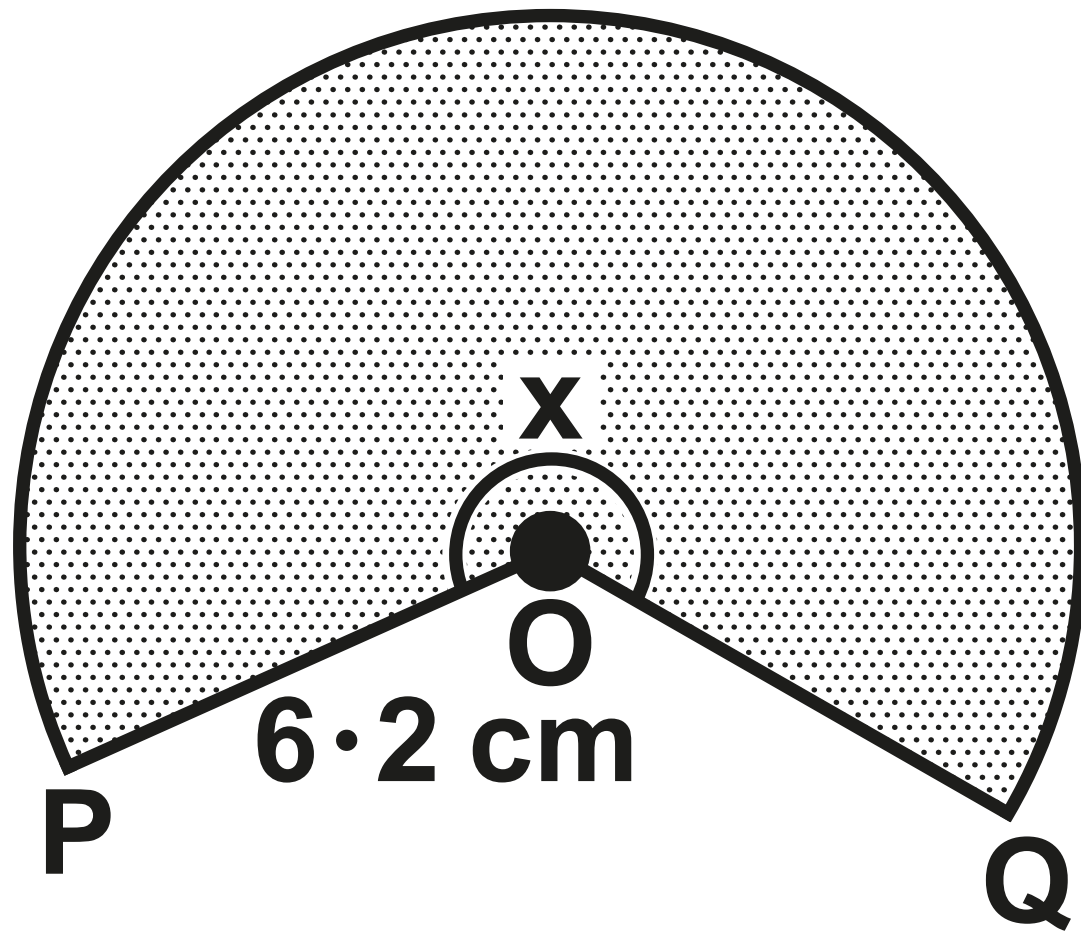




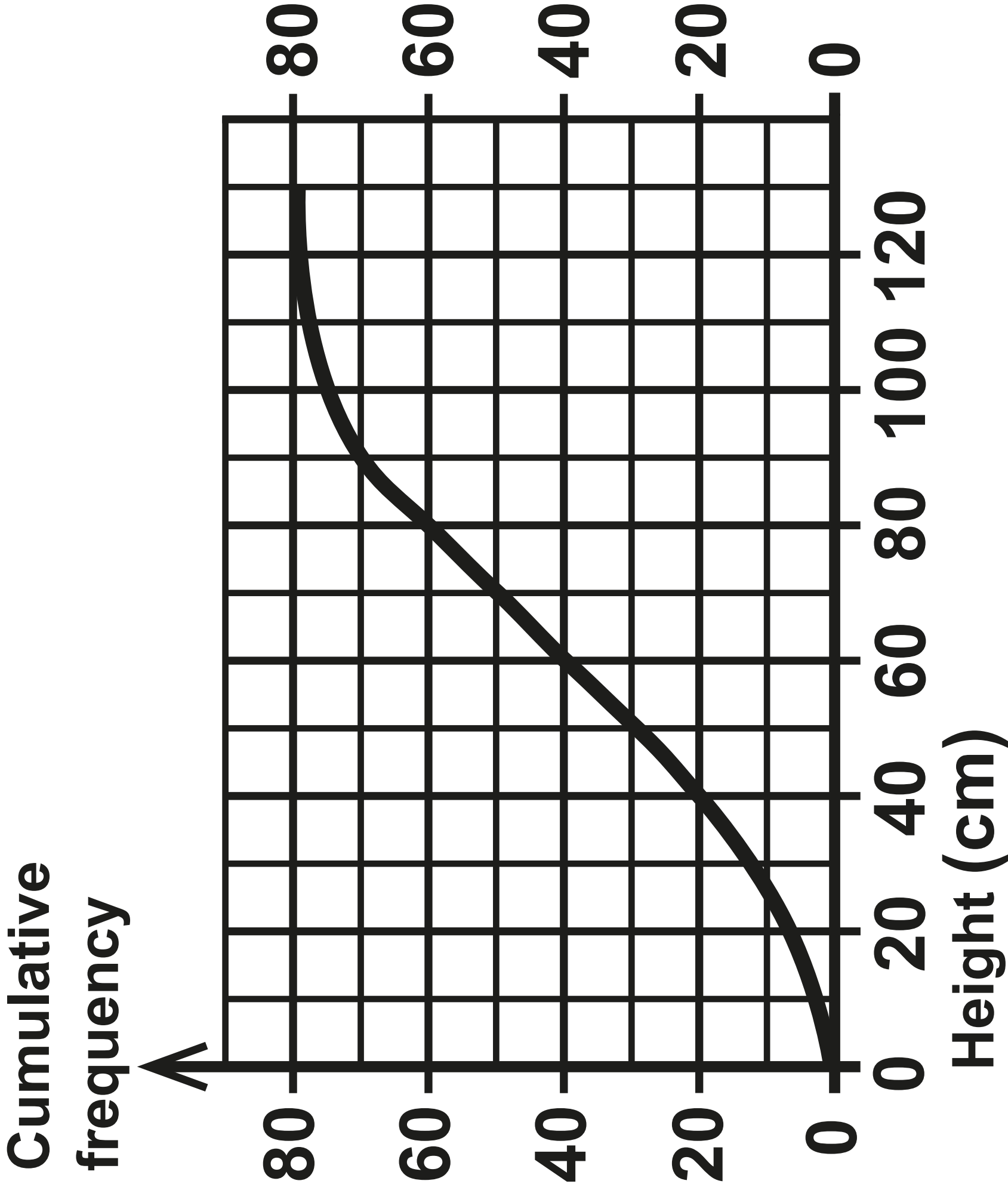
Question 9



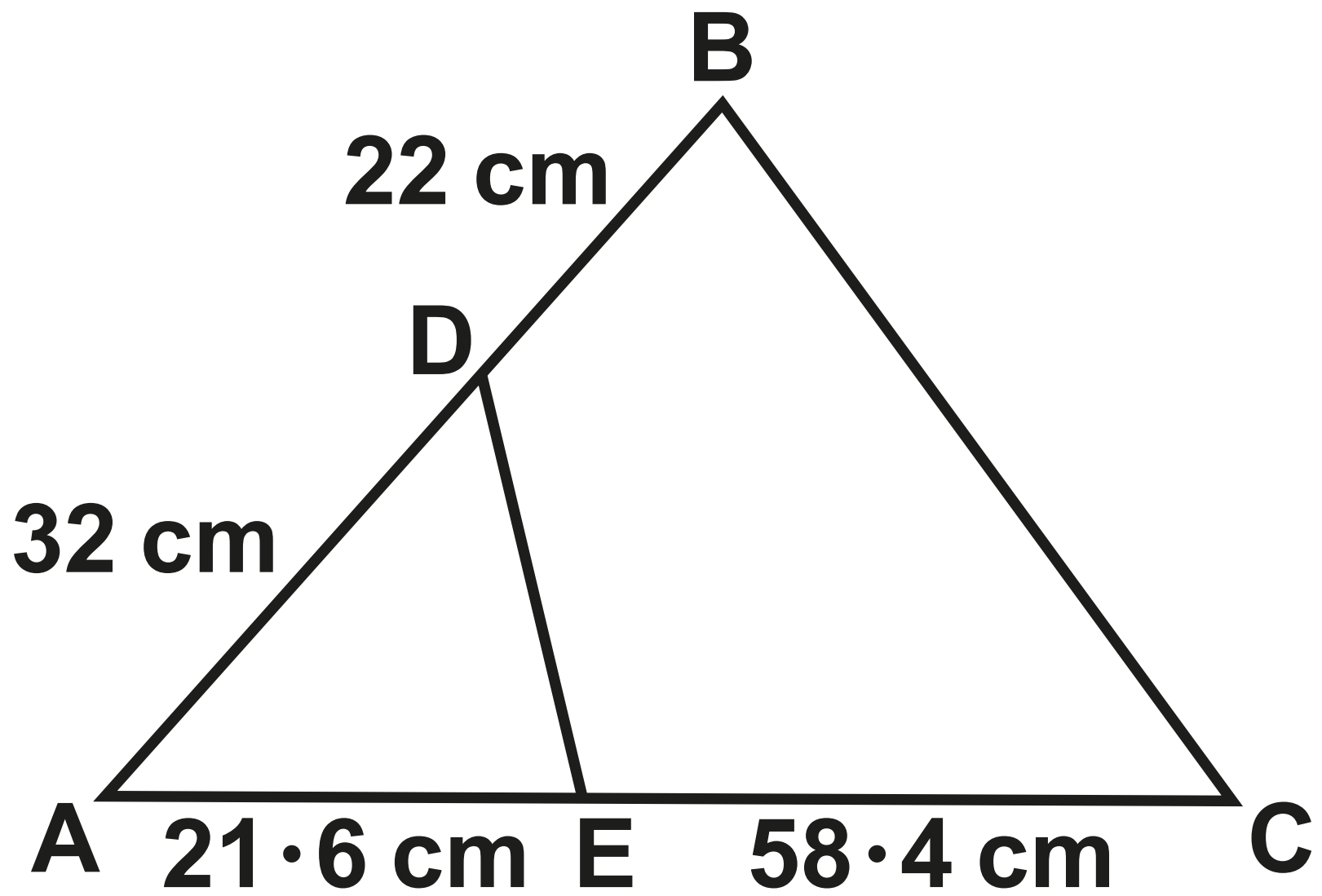
# Question 12



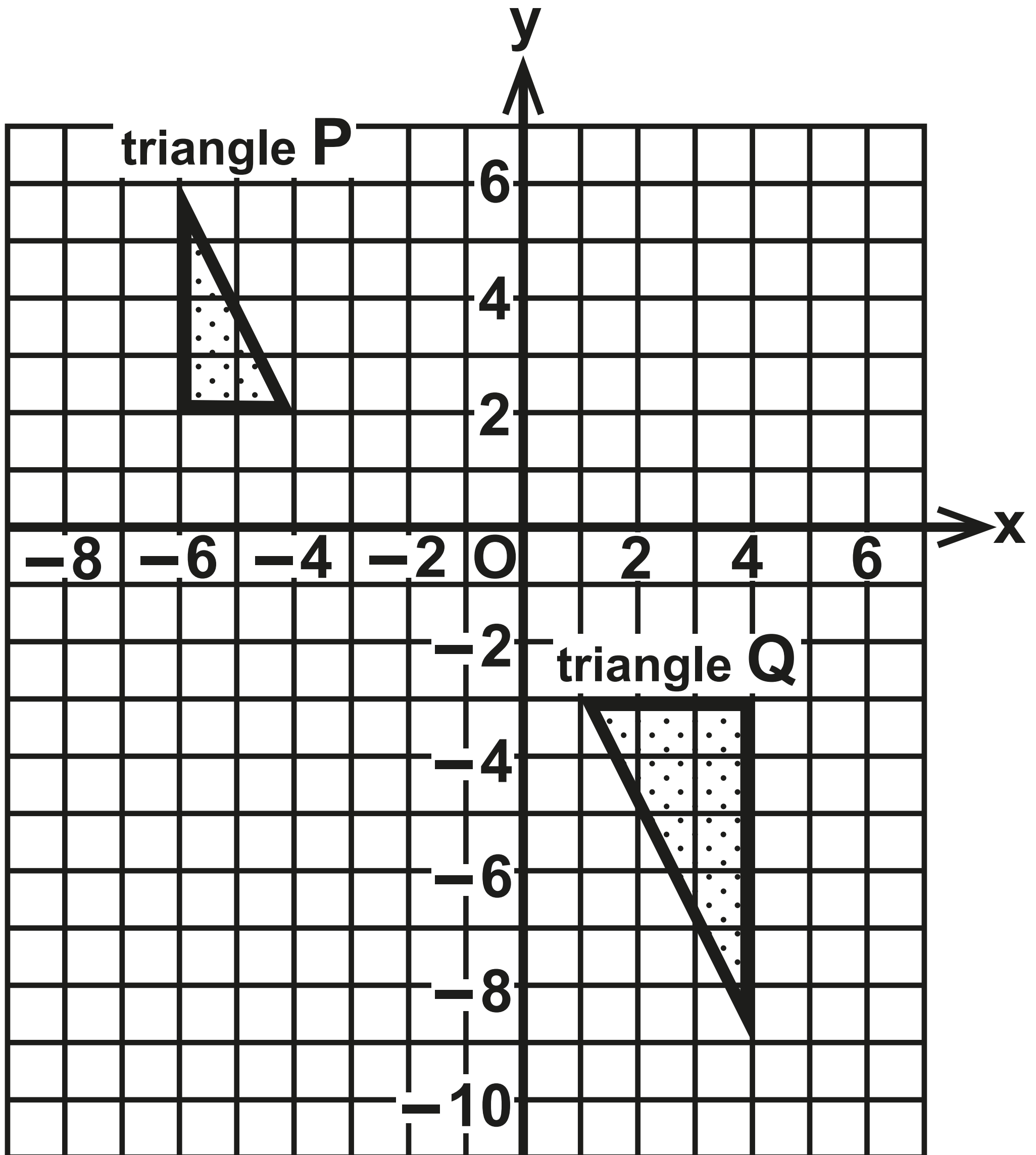
Question 13



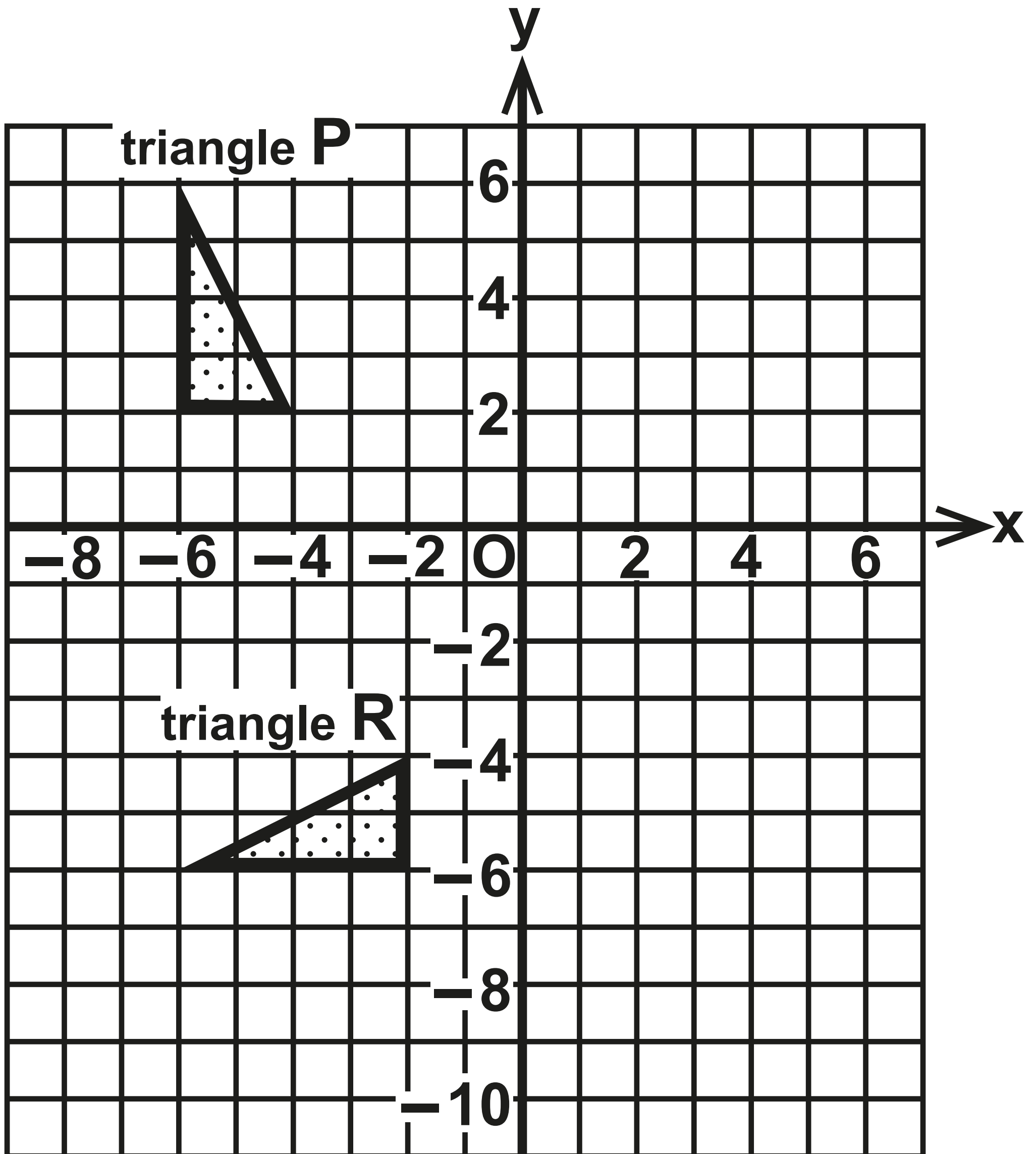
Question 15



Question 18(a)



Question 18(b)



# Question 19 – Diagrams

Diagram 1 – 3D view of frustum F

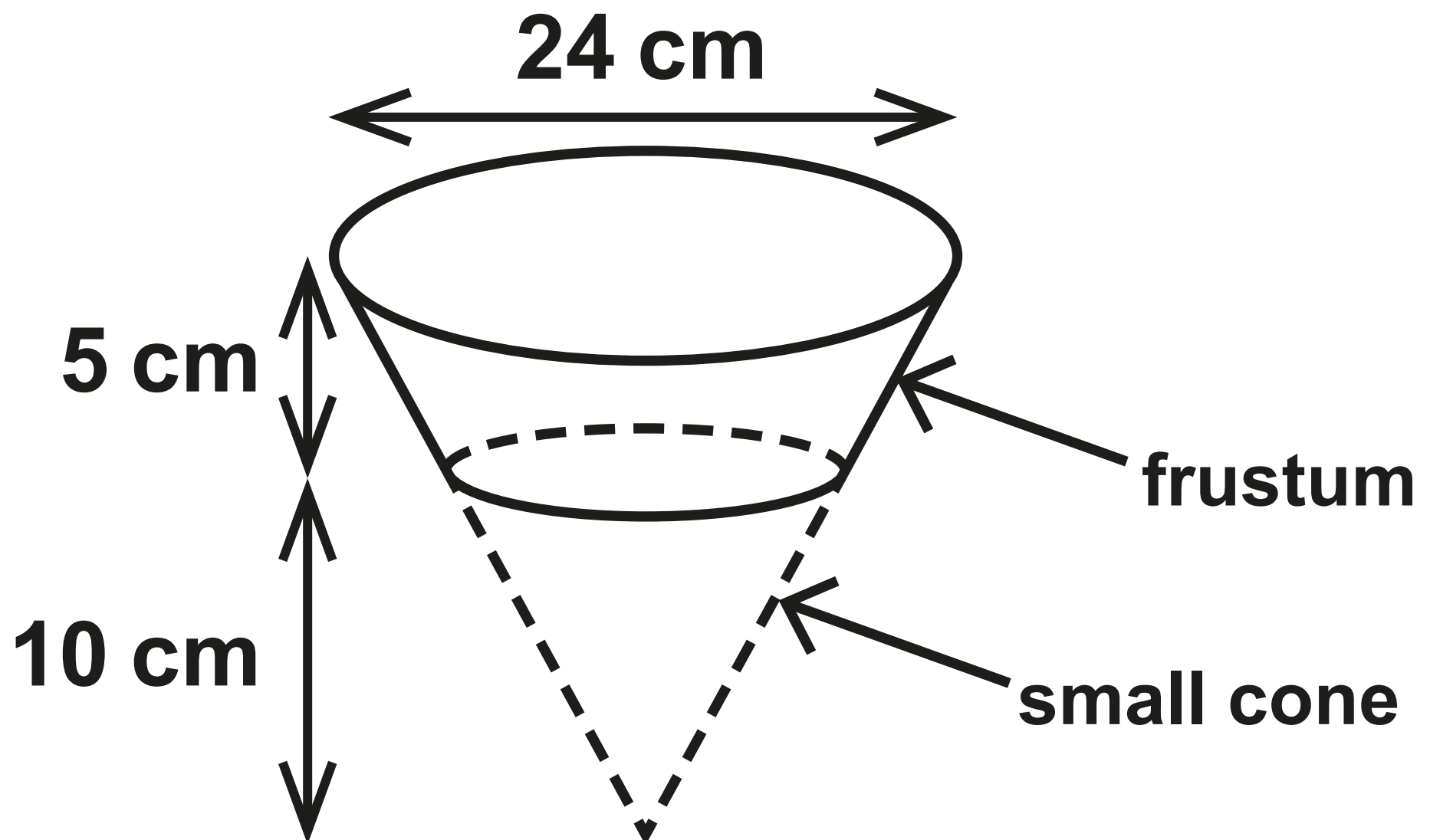
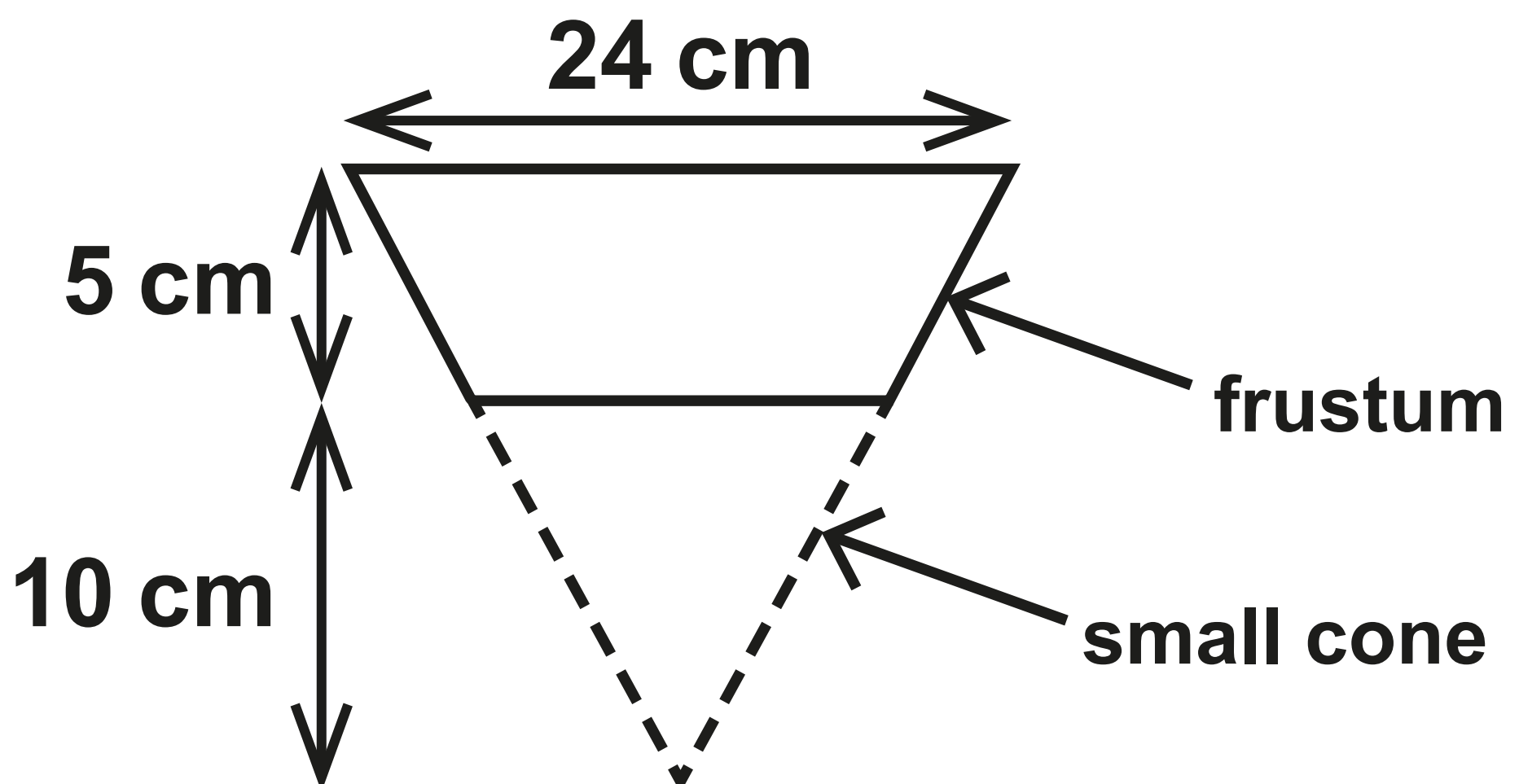


Diagram 2 – 2D view of frustum F



# Question 19 – Diagrams

Diagram 3 – 3D view of solid S

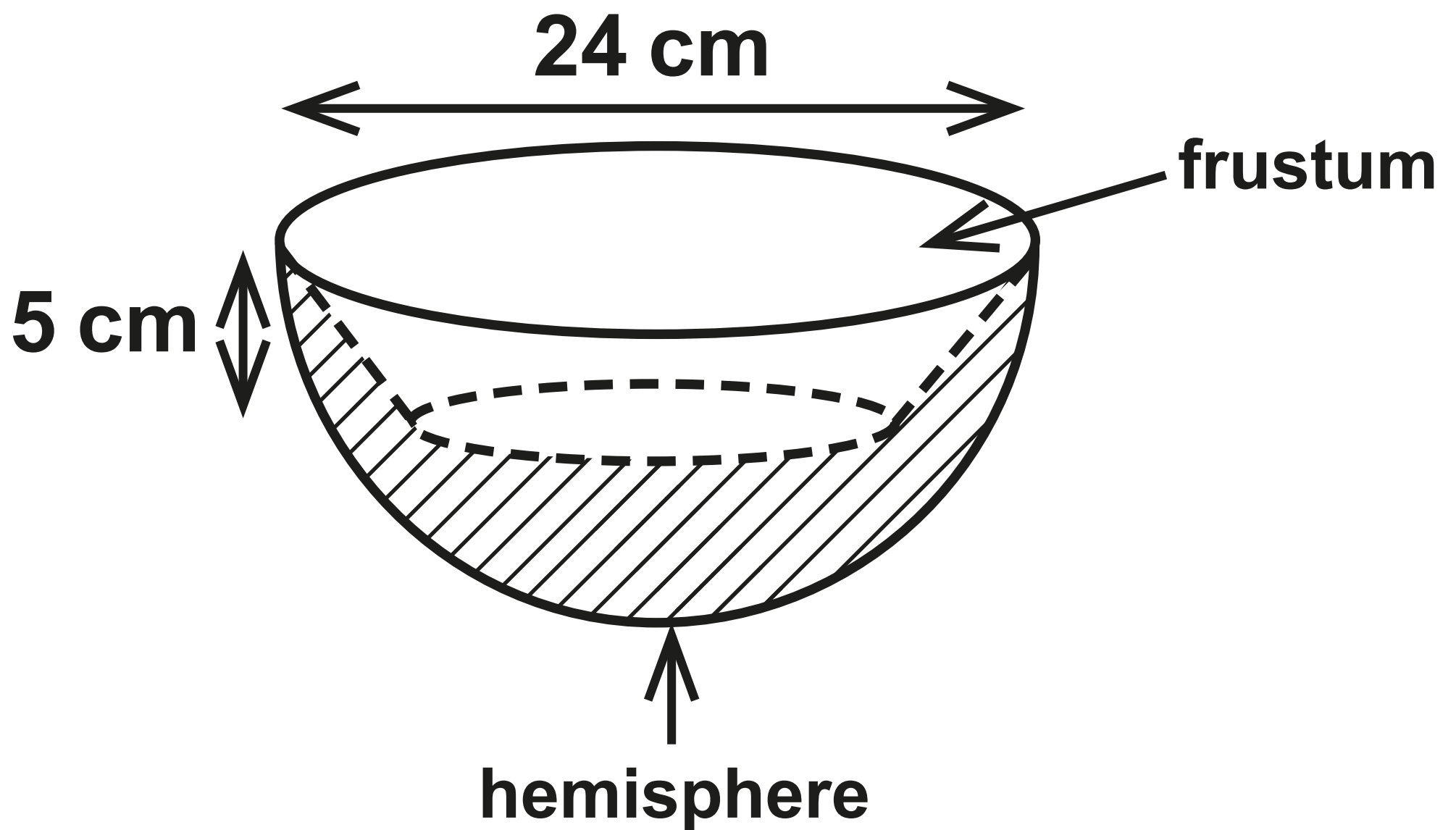
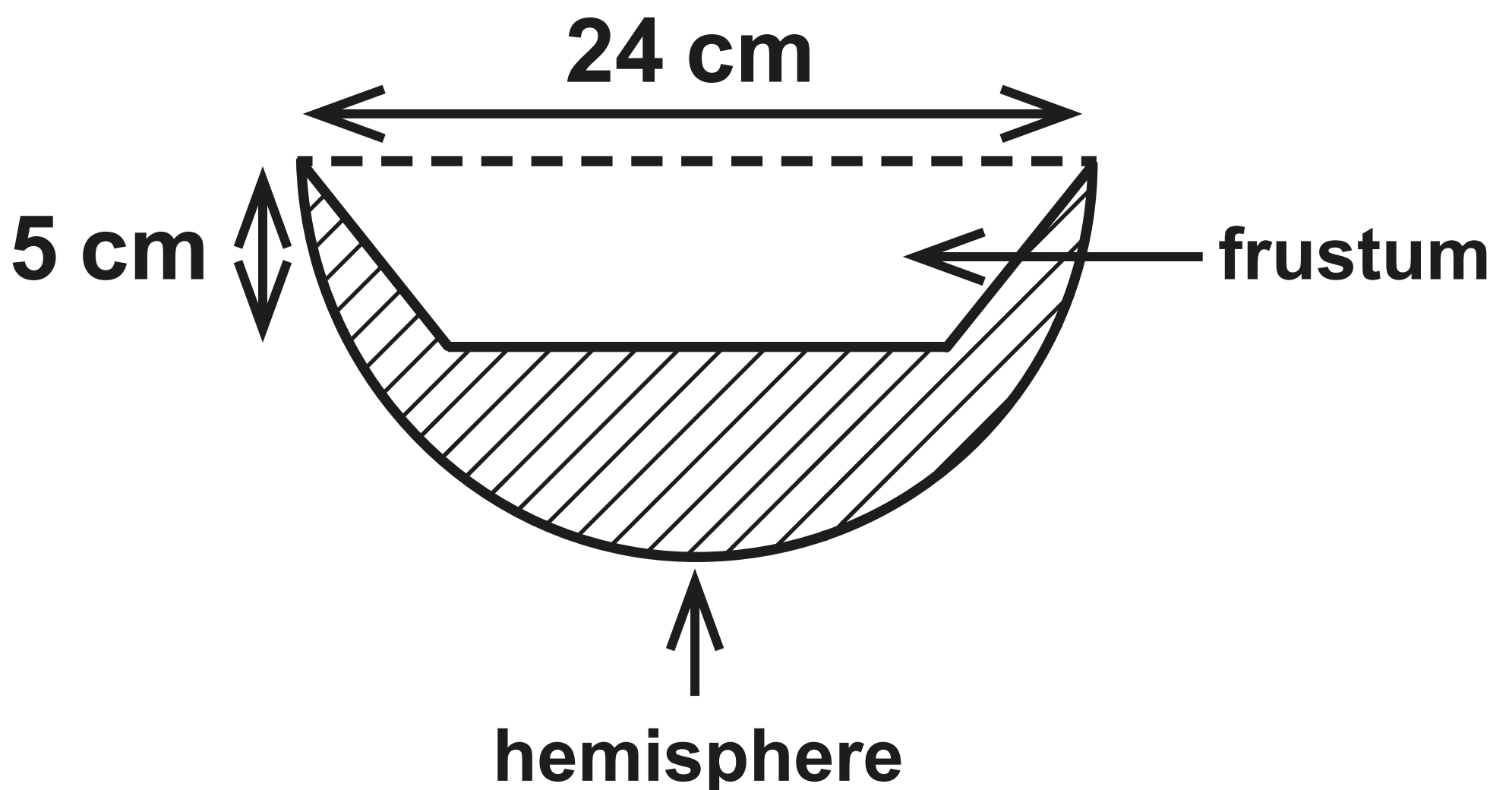


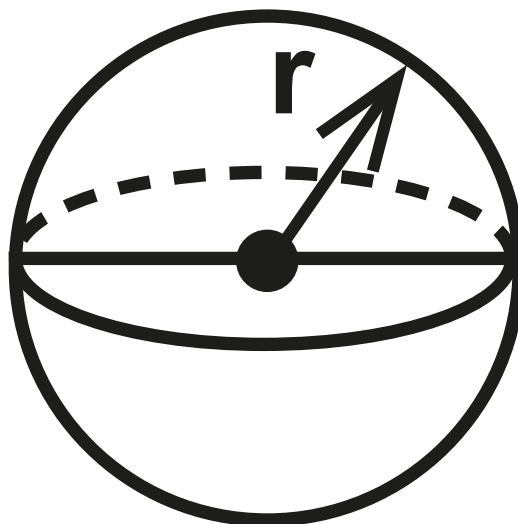
Diagram 4 – 2D view of solid S





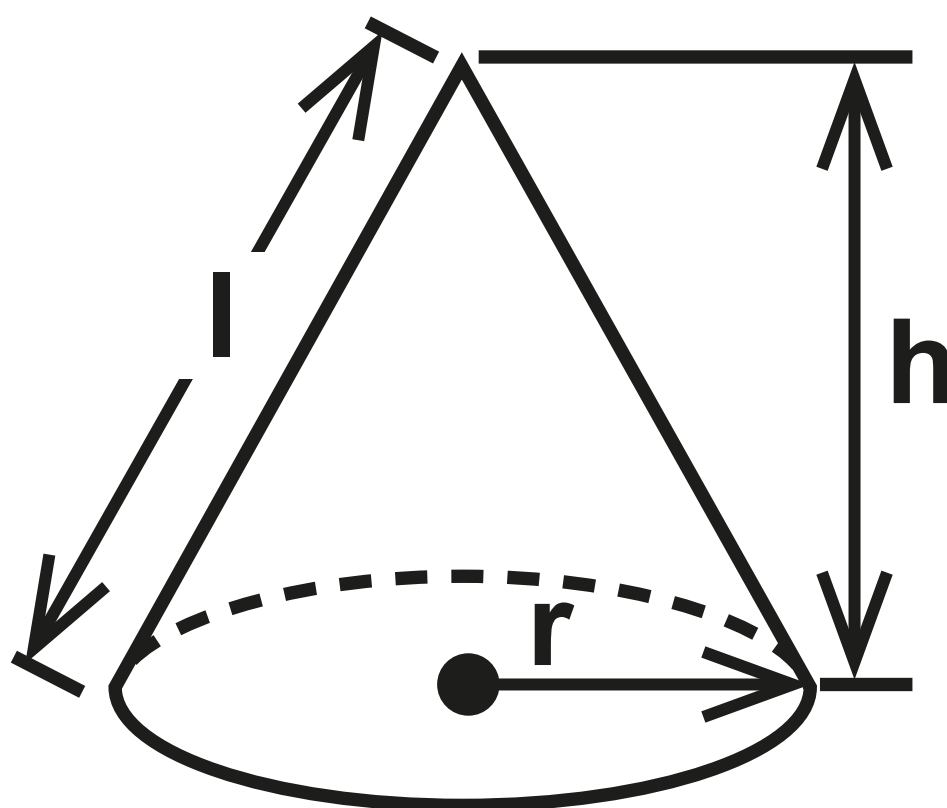
**Question 19 – Formulae**

**Volume of sphere =  $\frac{4}{3} \pi r^3$**



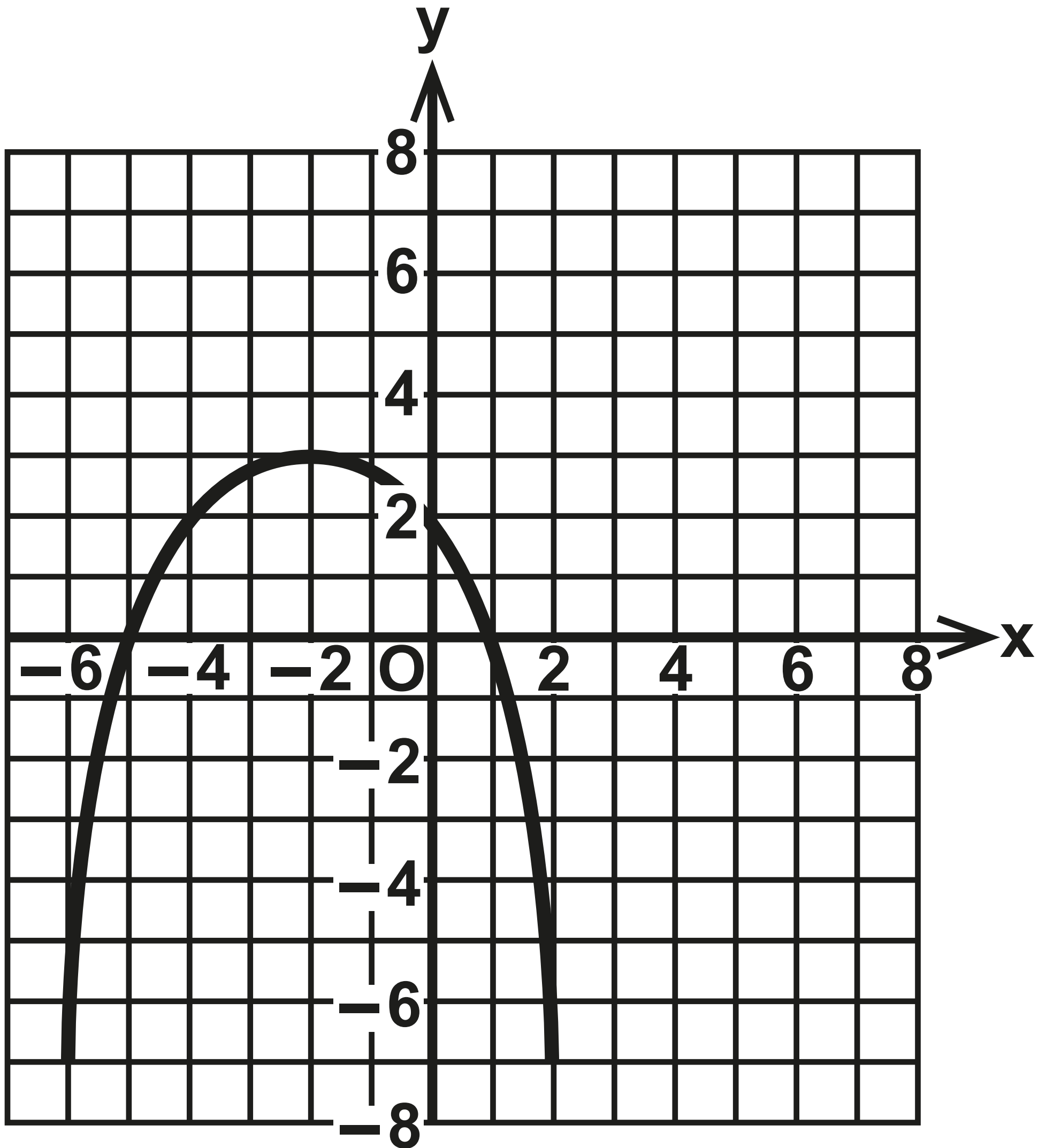
**You may be provided with a model**

**Volume of cone =  $\frac{1}{3} \pi r^2 h$**

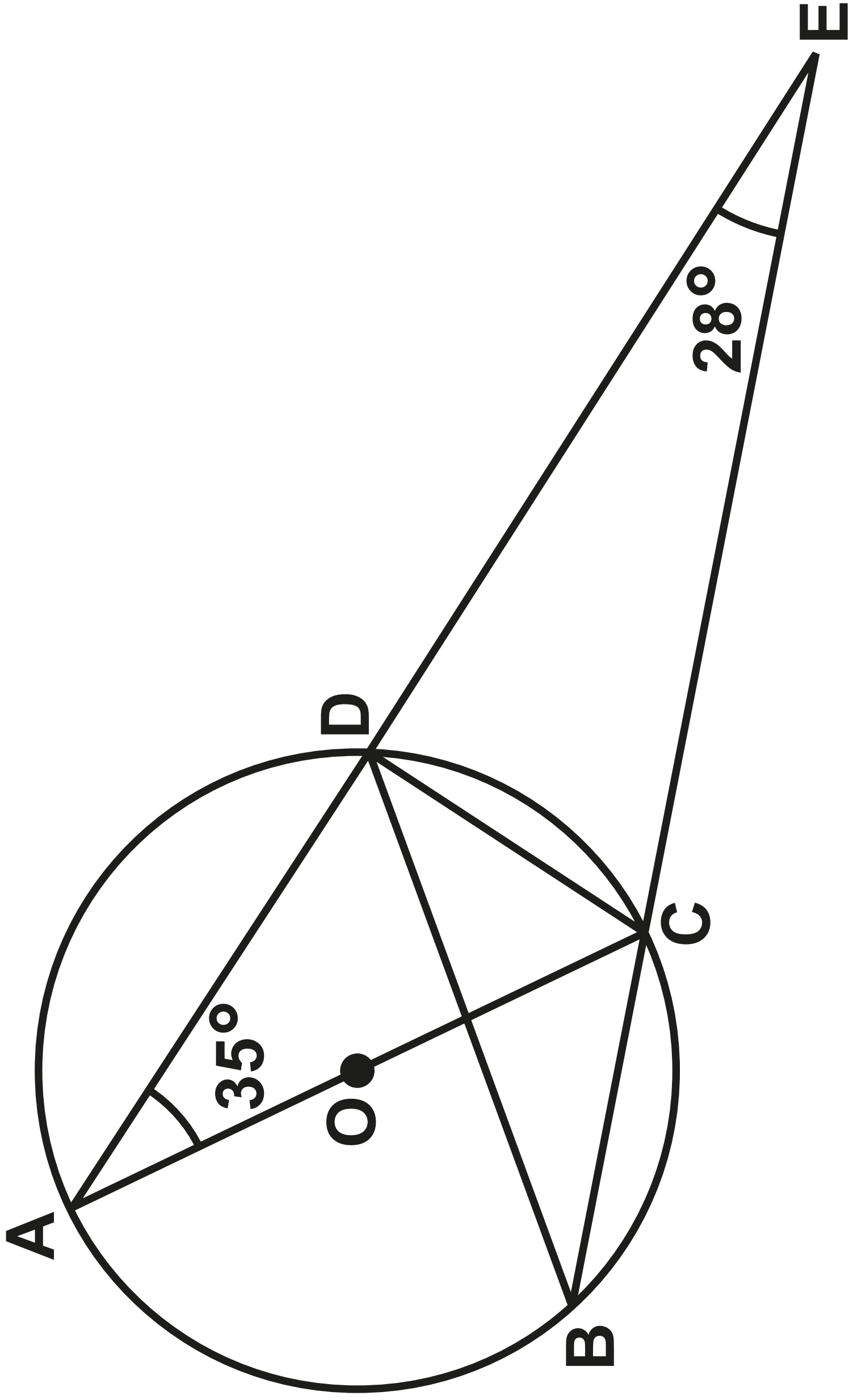


**You may be provided with a model**

## Question 20(b)



Question 21



## Question 22

The materials to make all the bracelets cost £190, correct to the nearest £5

Ebony sells all the bracelets for a total of £875, correct to the nearest £5

The total time taken to make and sell all these bracelets was 72 hours, correct to the nearest hour.

Ebony uses this method to calculate her hourly rate of pay

Hourly rate of pay =

$$\frac{\text{total selling price} - \text{total cost of materials}}{\text{total time taken}}$$

# Question 24

Diagram 1 – 3D view of triangular prism

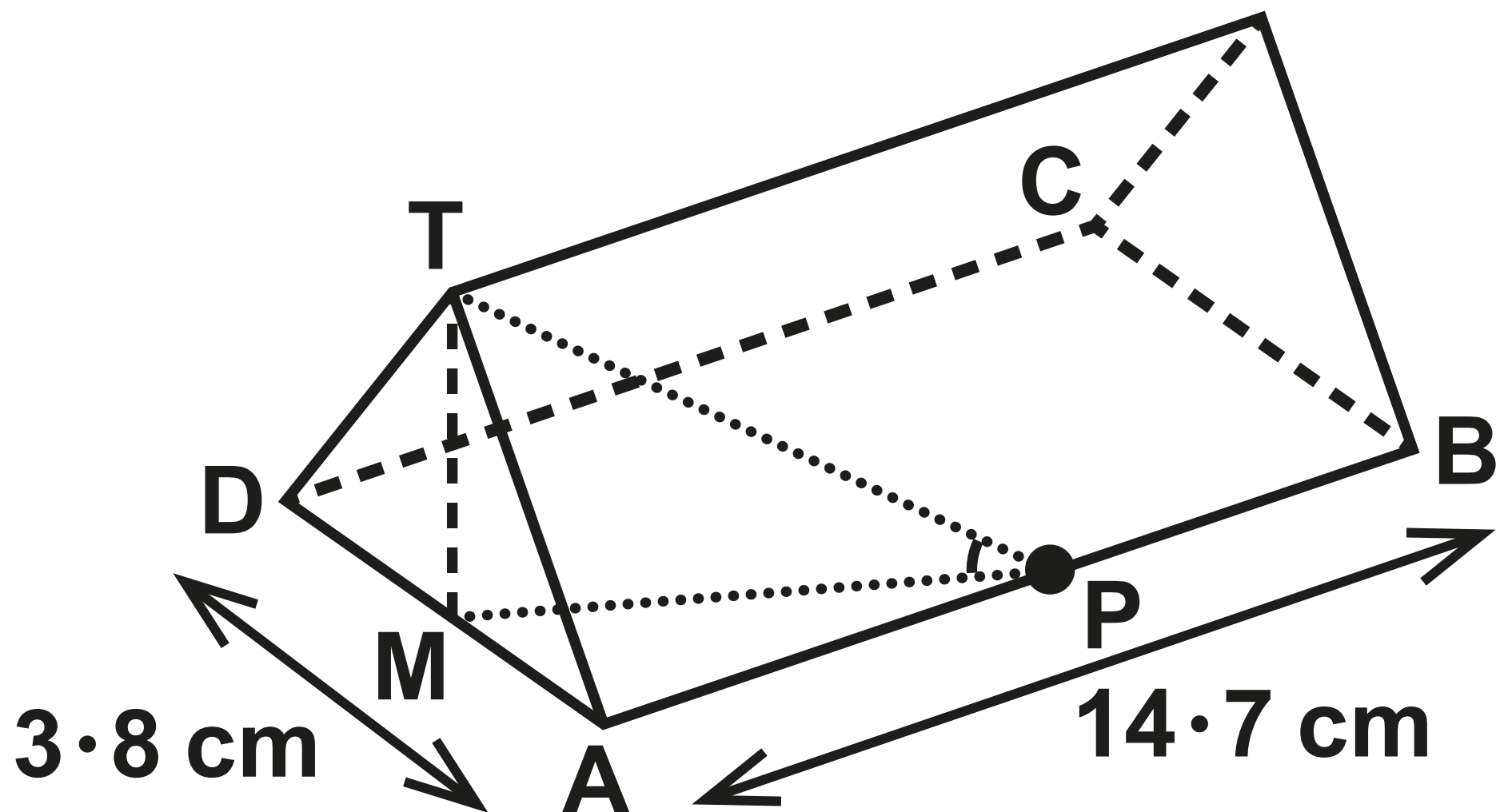
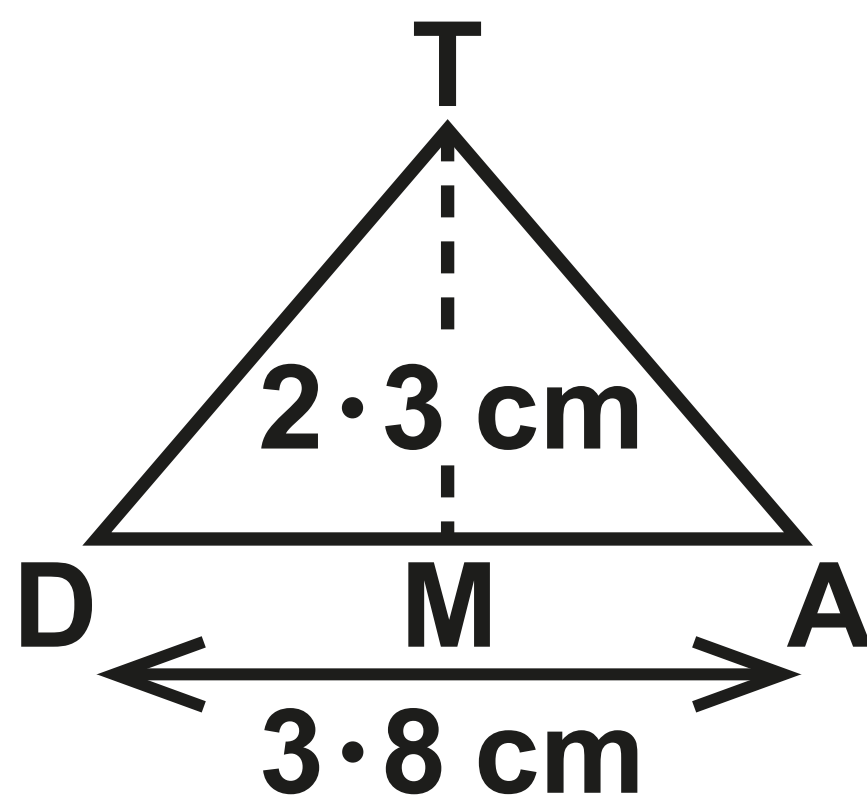


Diagram 2 – Face TAD of triangular prism



## Question 20(b)

