

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.

Surname					
Other names					
Centre Number					
Candidate Number					

INSTRUCTIONS

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

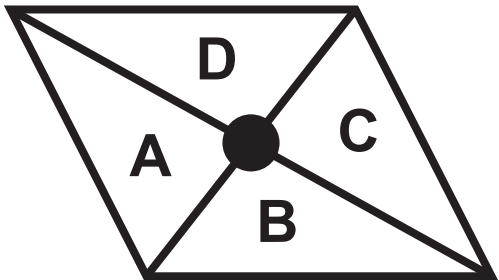
**THIS DIAGRAM BOOKLET MUST BE RETURNED WITH THE
QUESTION PAPER AT THE END OF THE EXAMINATION.**

Contents

Page

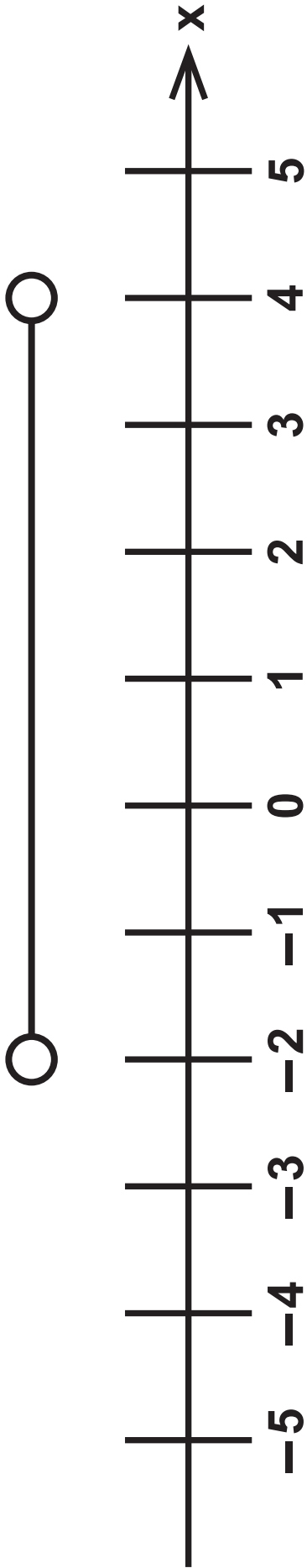
4	Question 2
5	Question 3
6	Question 4
7	Question 8
8	Question 9
9	Question 12
10	Question 13
11	Question 15
12	Question 18(a)
13	Question 18(b)
14–15	Question 19 – Diagrams
16	Question 19 – Formulae
17	Question 20(b)
18	Question 21
19	Question 22
20	Question 24
Spare copy	
21	Question 20(b)

Question 2

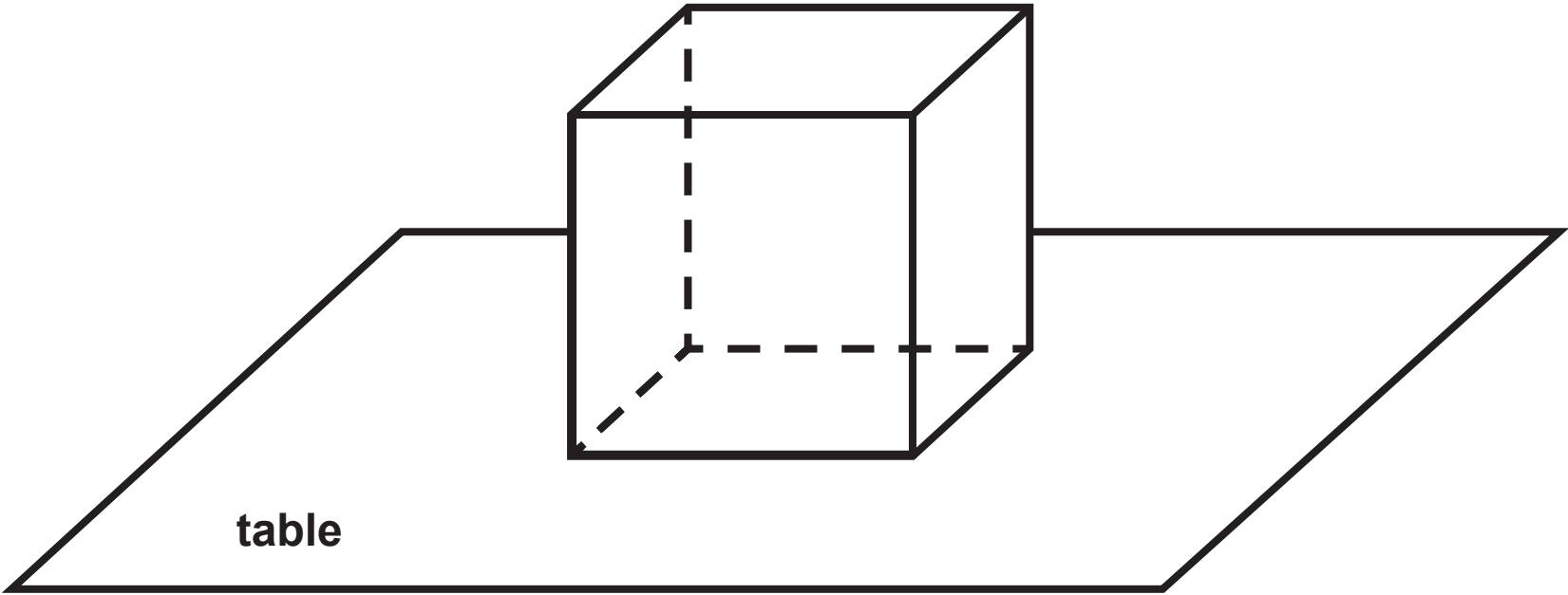


Question 3

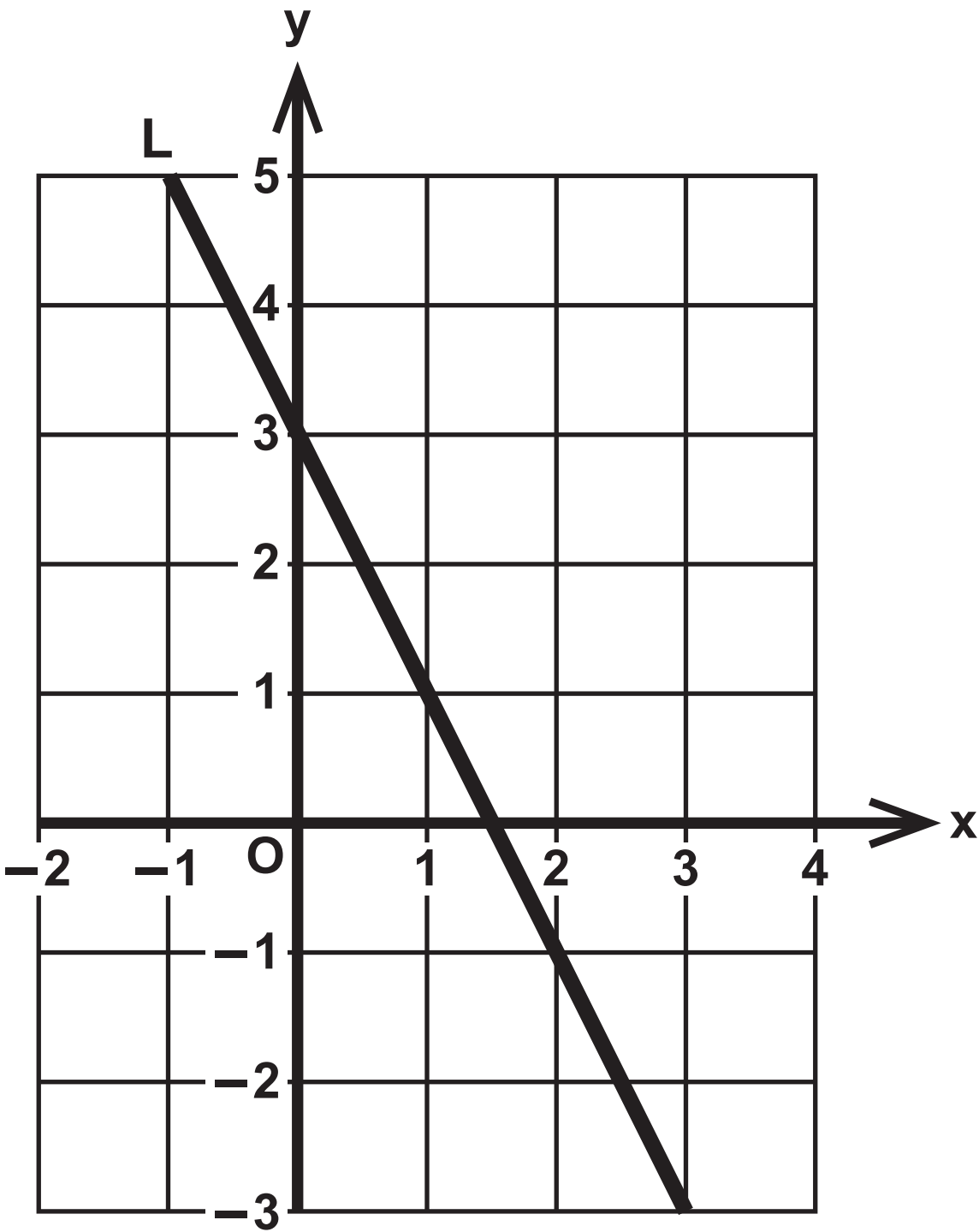
Temperature (T°C)	Frequency
10 < T ≤ 15	2
15 < T ≤ 20	8
20 < T ≤ 25	13
25 < T ≤ 30	21
30 < T ≤ 35	6



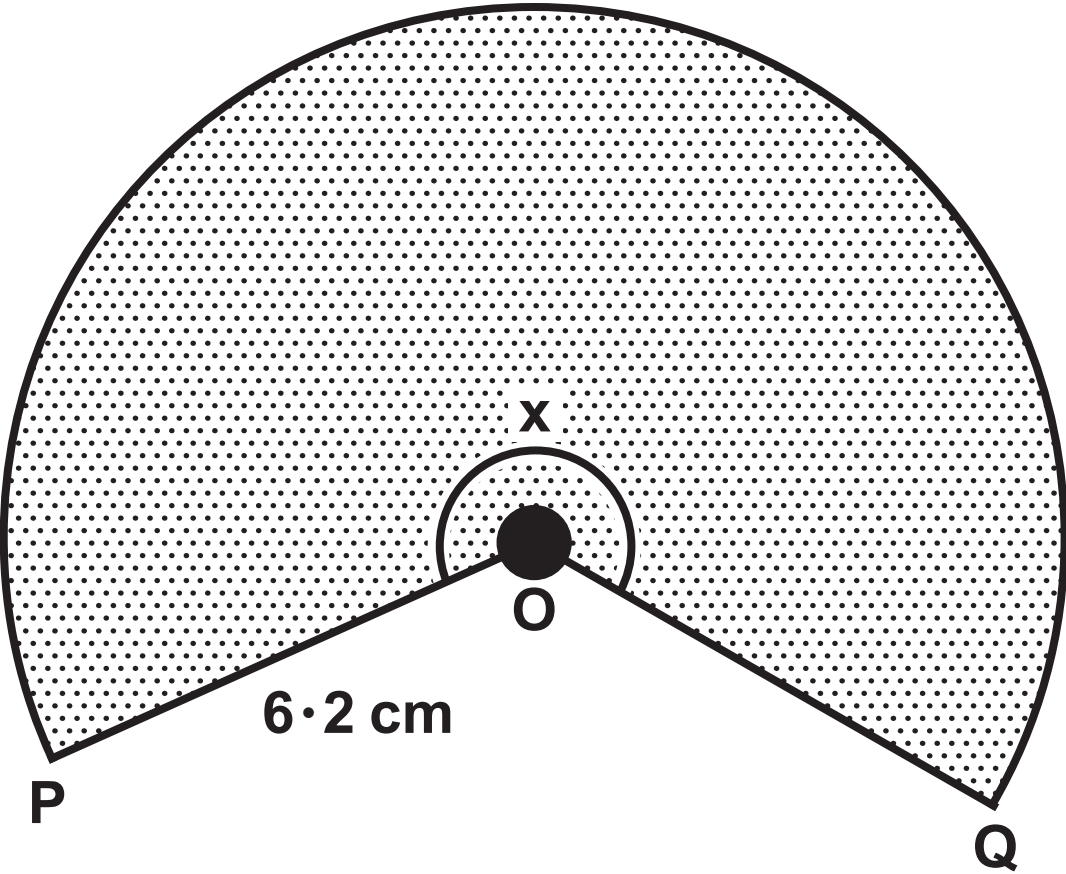
Question 8



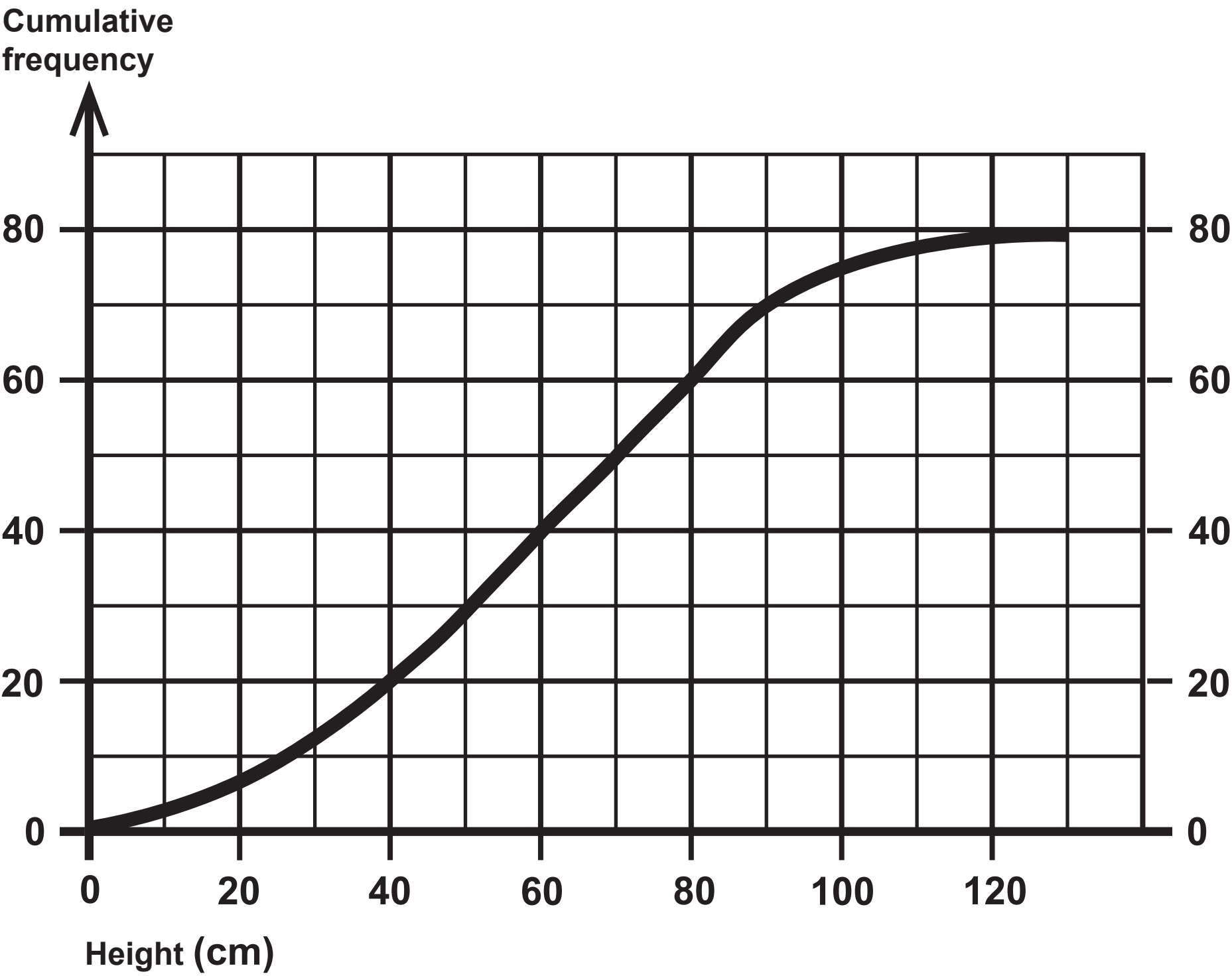
Question 9



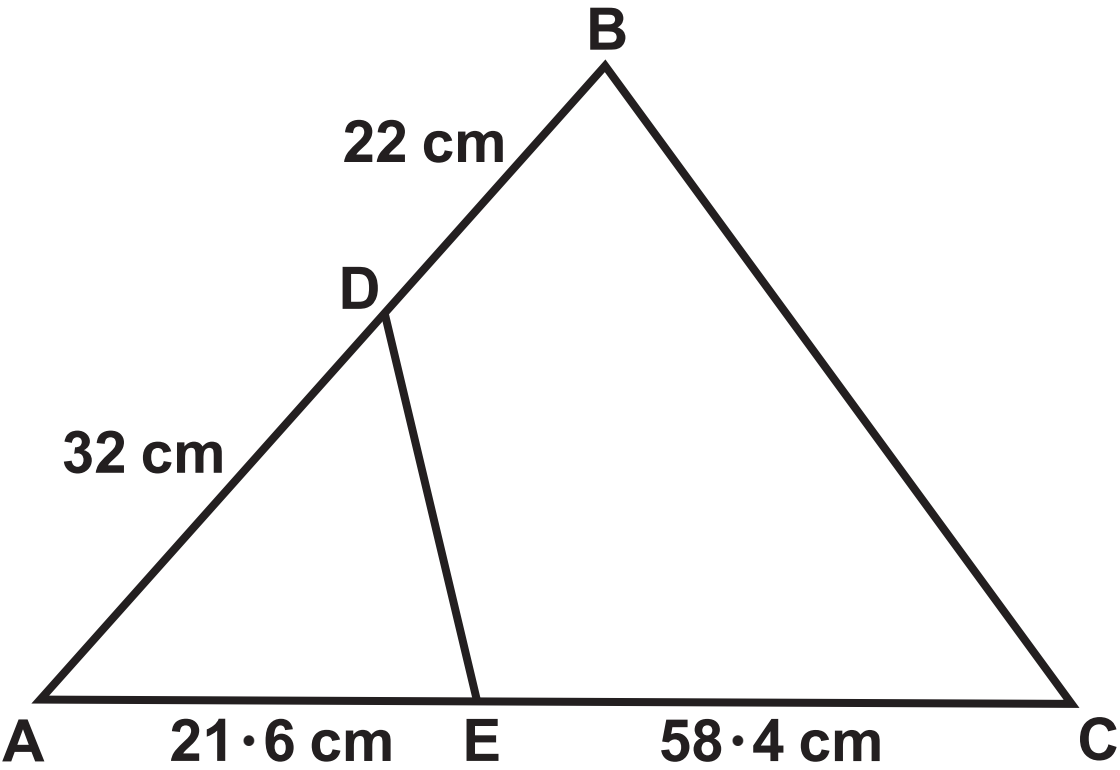
Question 12



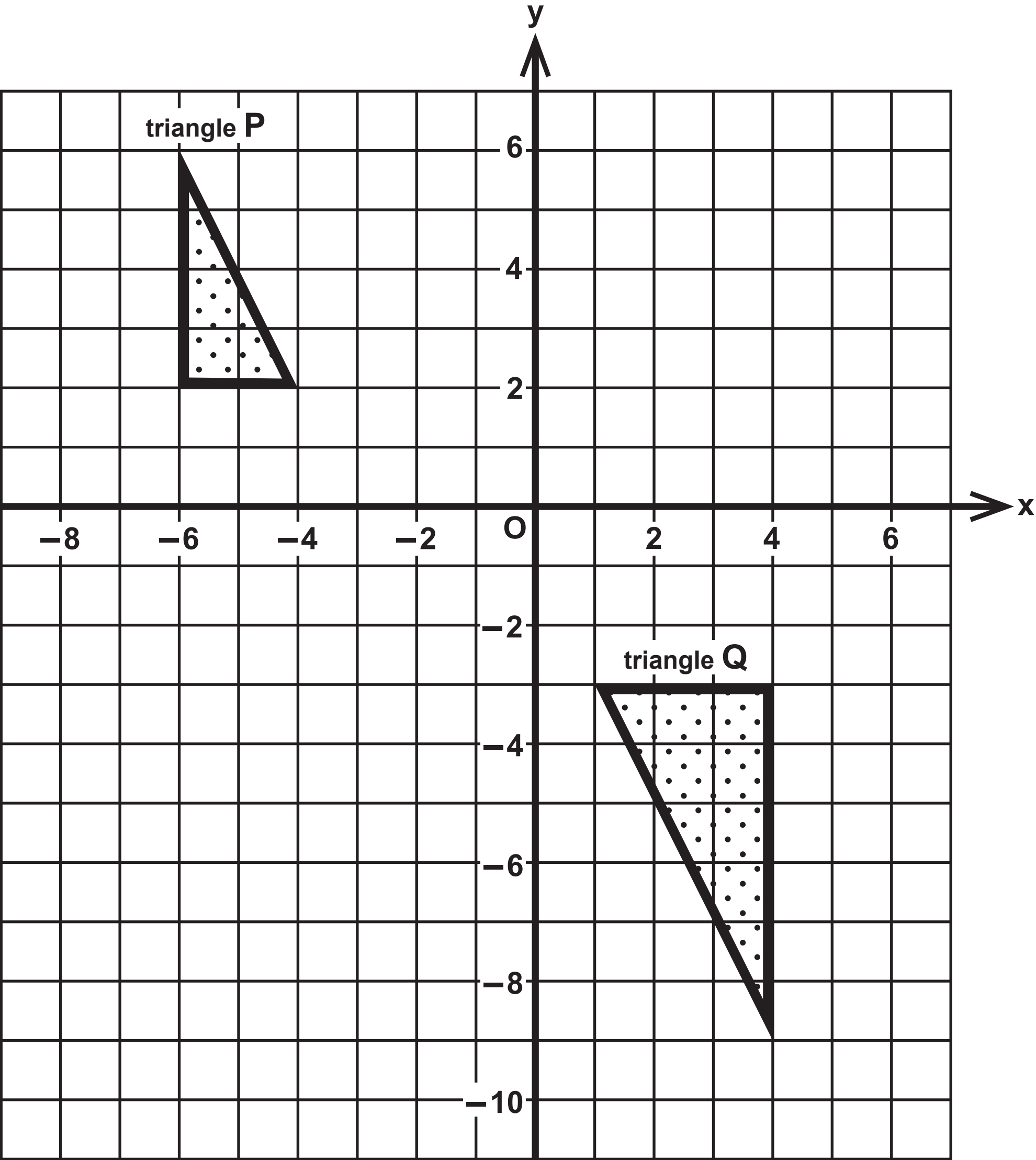
Question 13



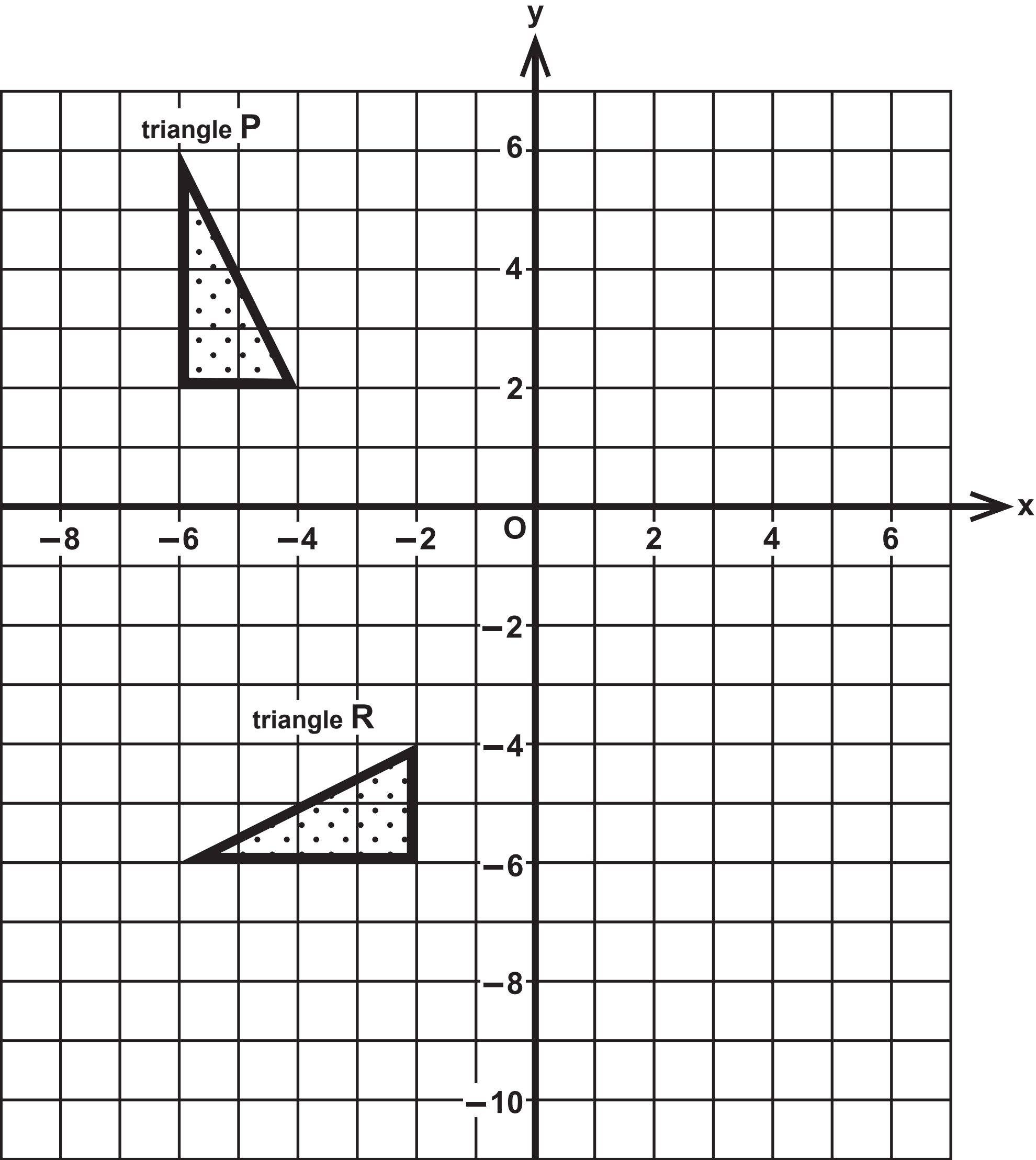
Question 15



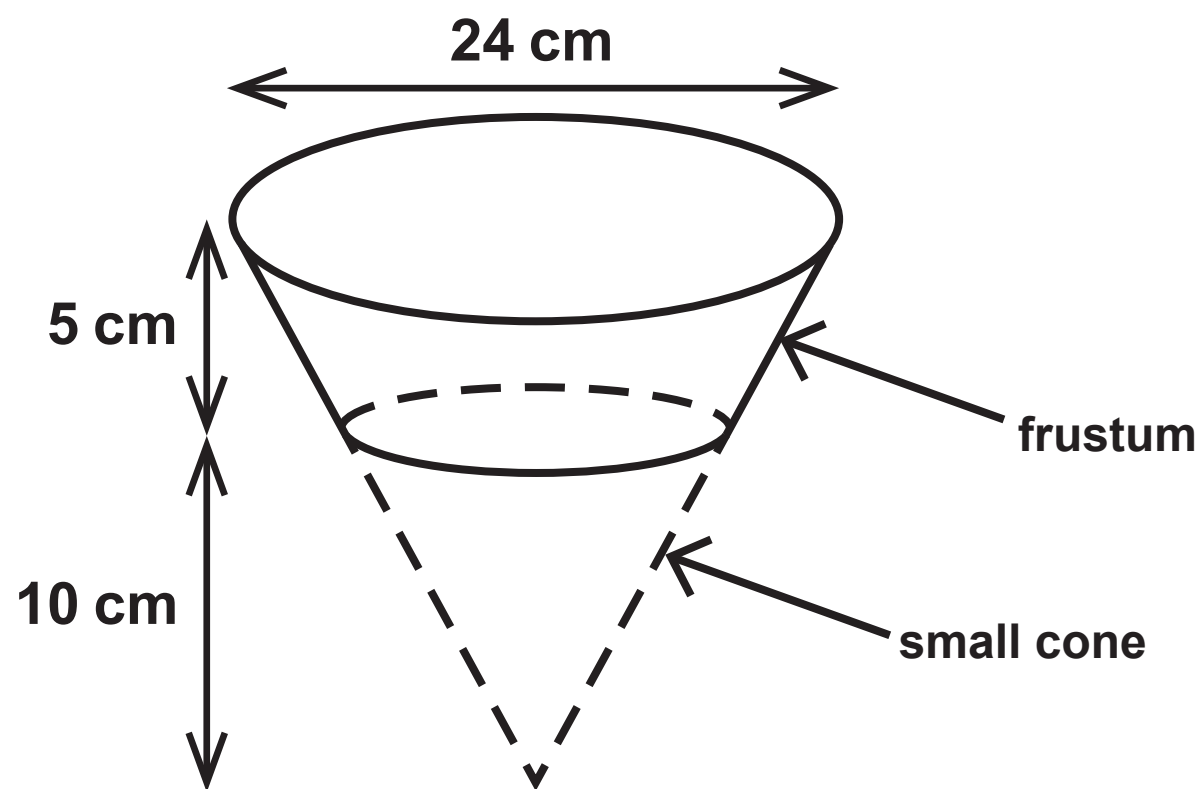
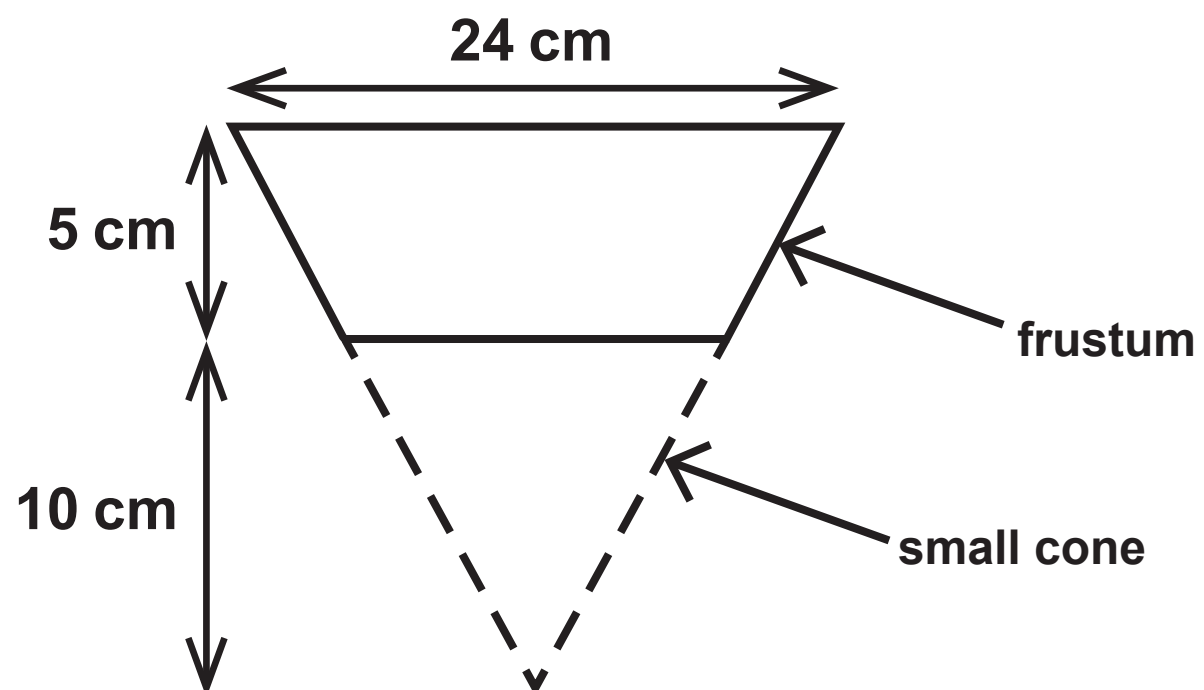
Question 18(a)



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

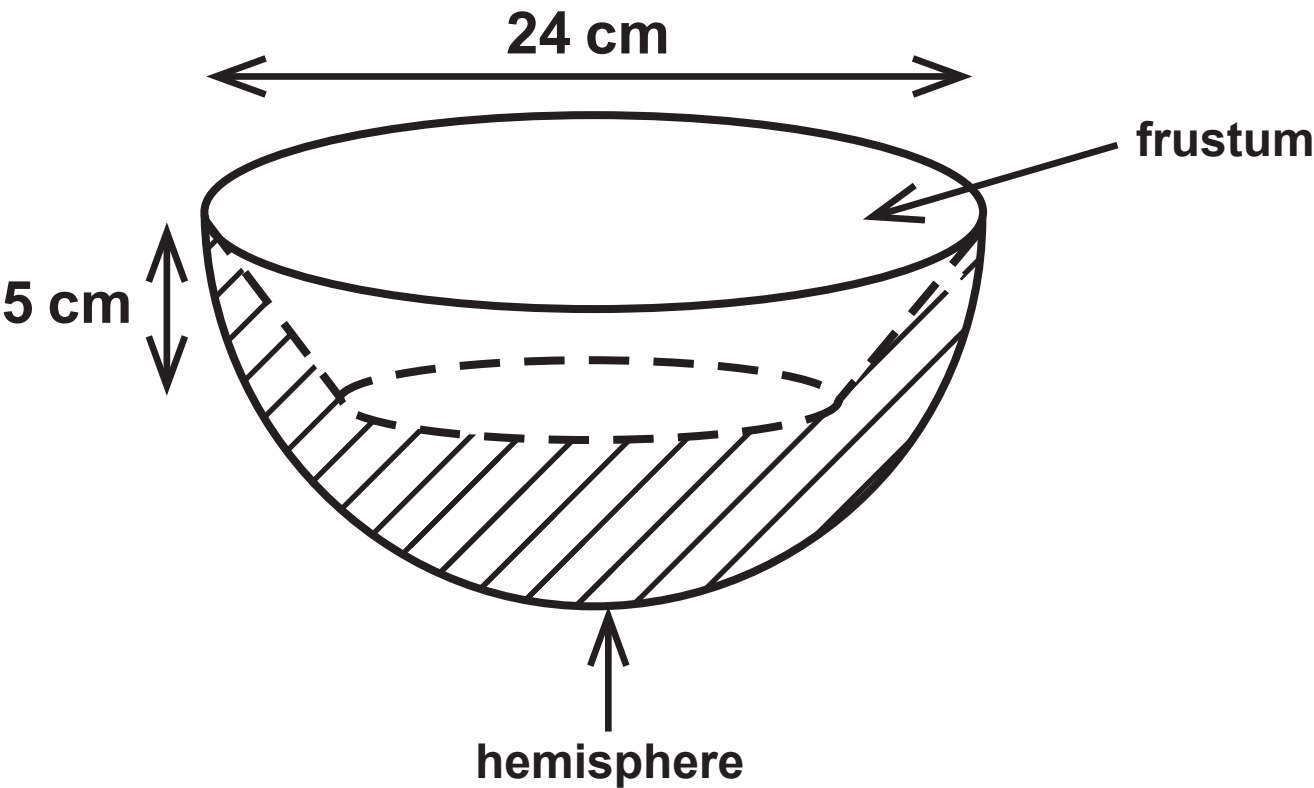
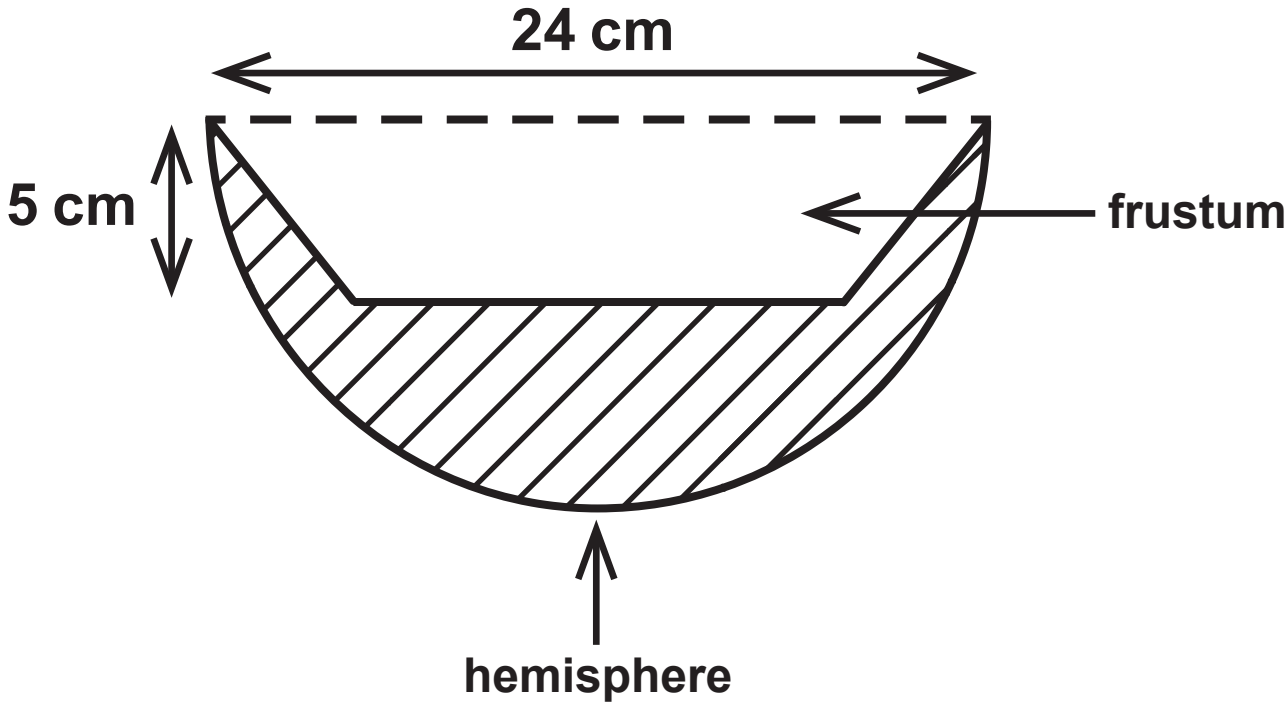
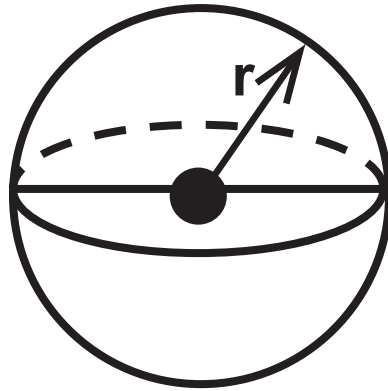


Diagram 4 – 2D view of solid S



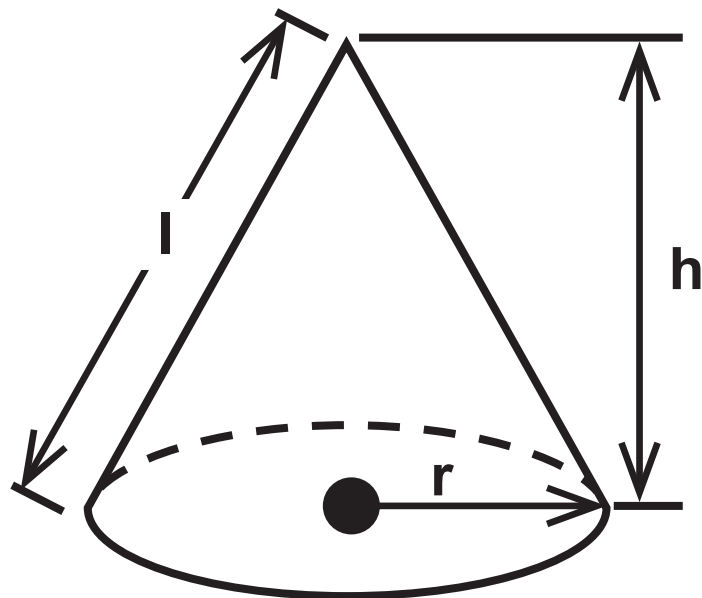
Question 19 – Formulae

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



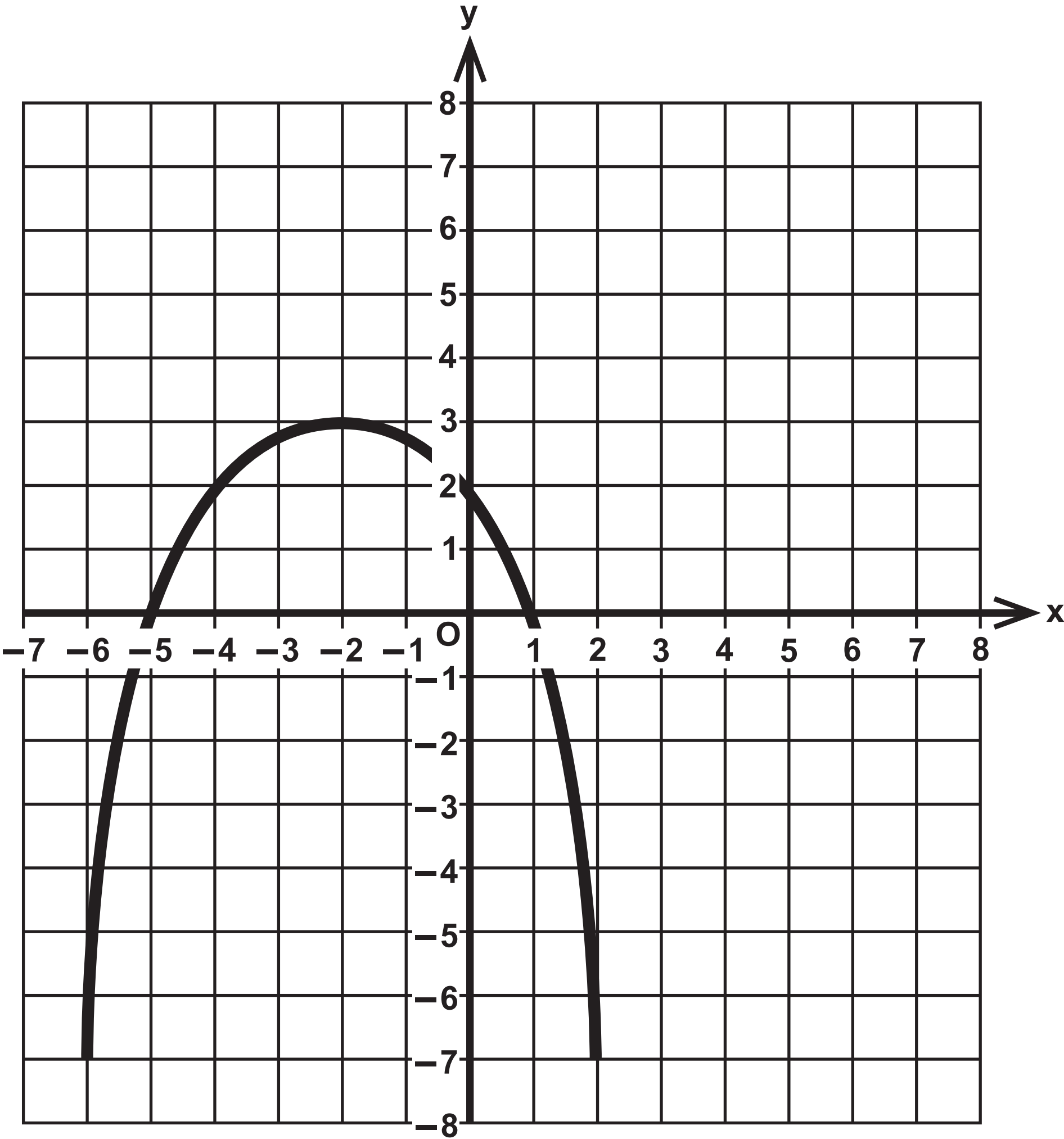
You may be provided with a model

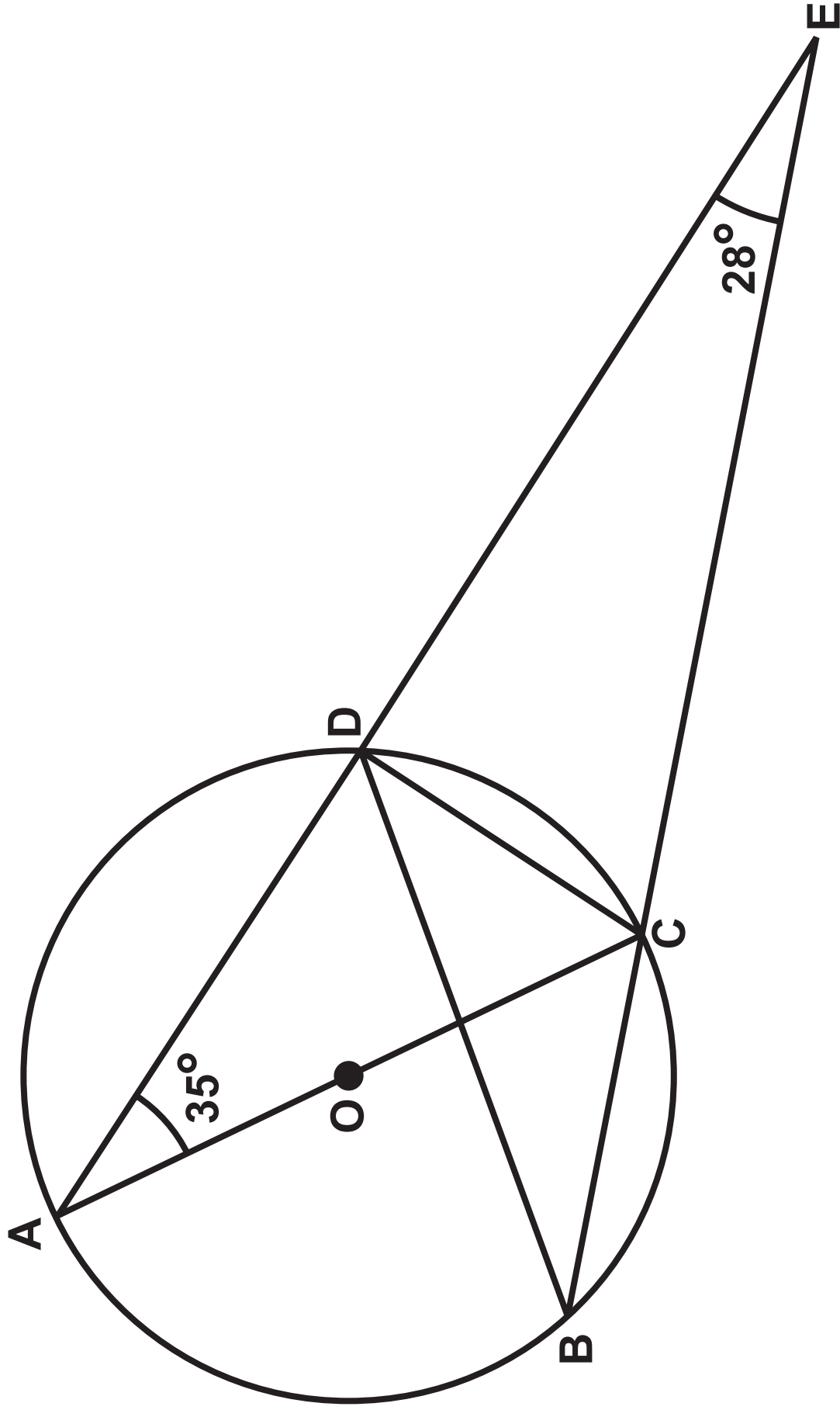
$$\text{Volume of cone} = \frac{1}{3} \pi r^2 h$$



You may be provided with a model

Question 20(b)





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

$$\text{Hourly rate of pay} = \frac{\text{total selling price} - \text{total cost of materials}}{\text{total time taken}}$$

Question 24

Diagram 1 – 3D view of triangular prism

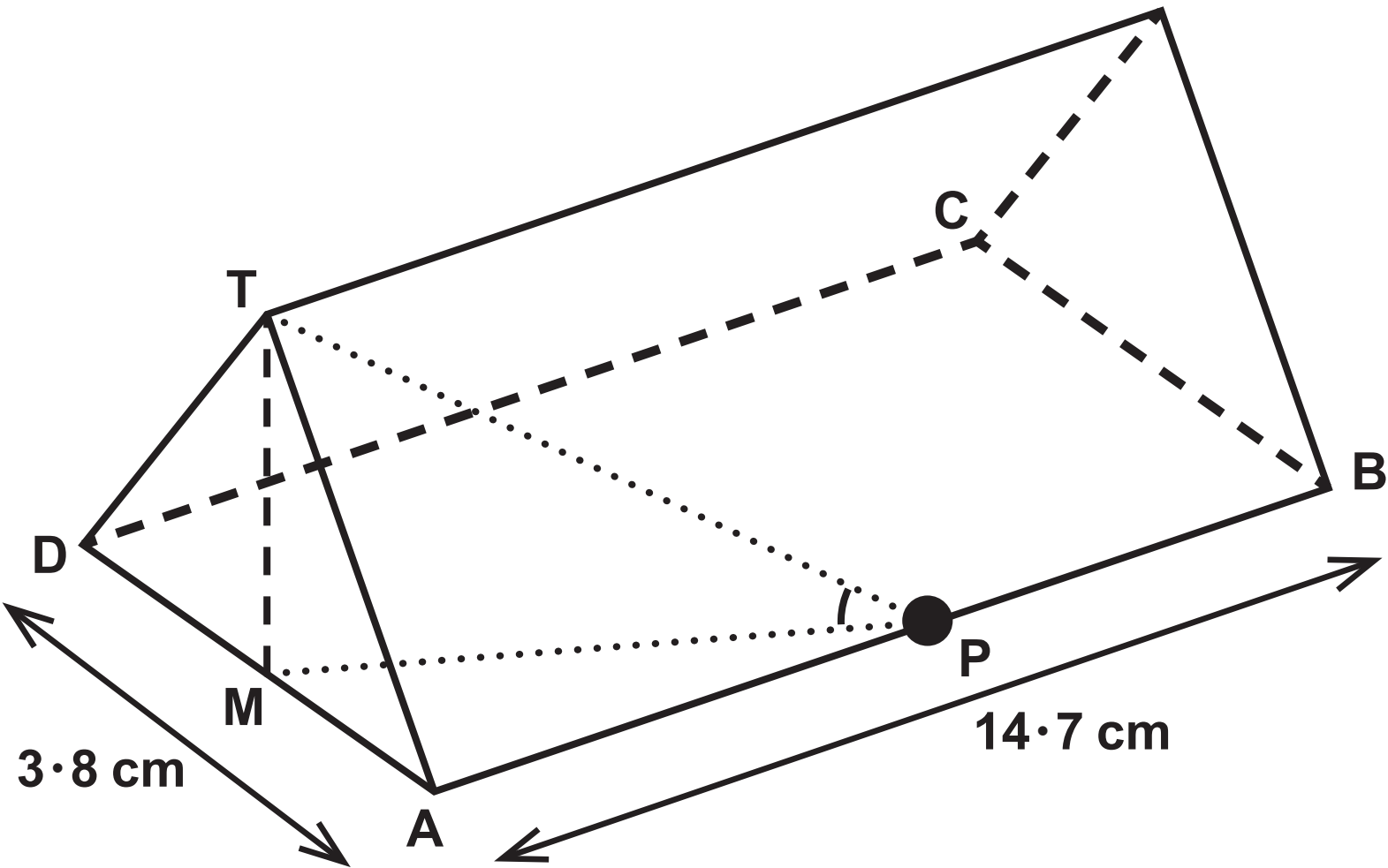
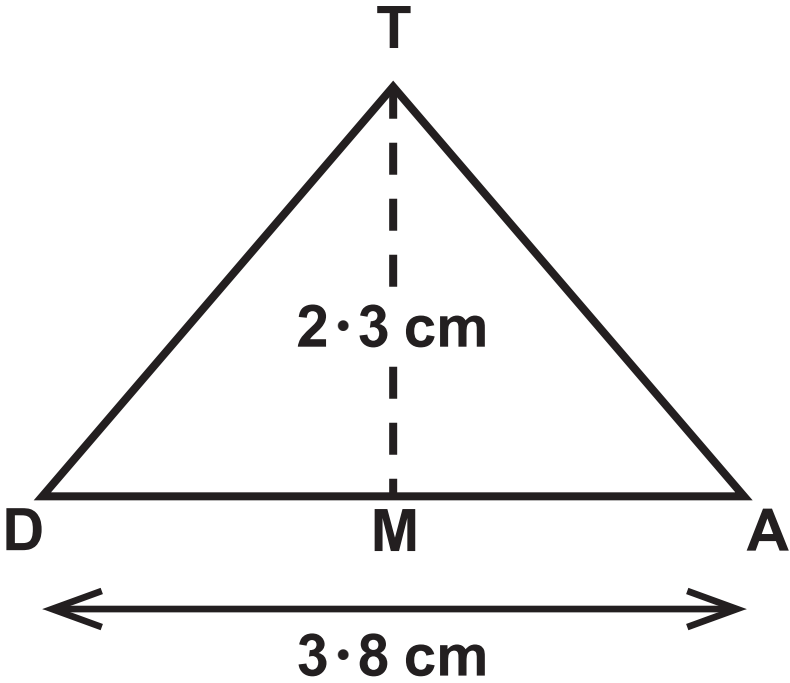


Diagram 2 – Face TAD of triangular prism



Question 20(b)

