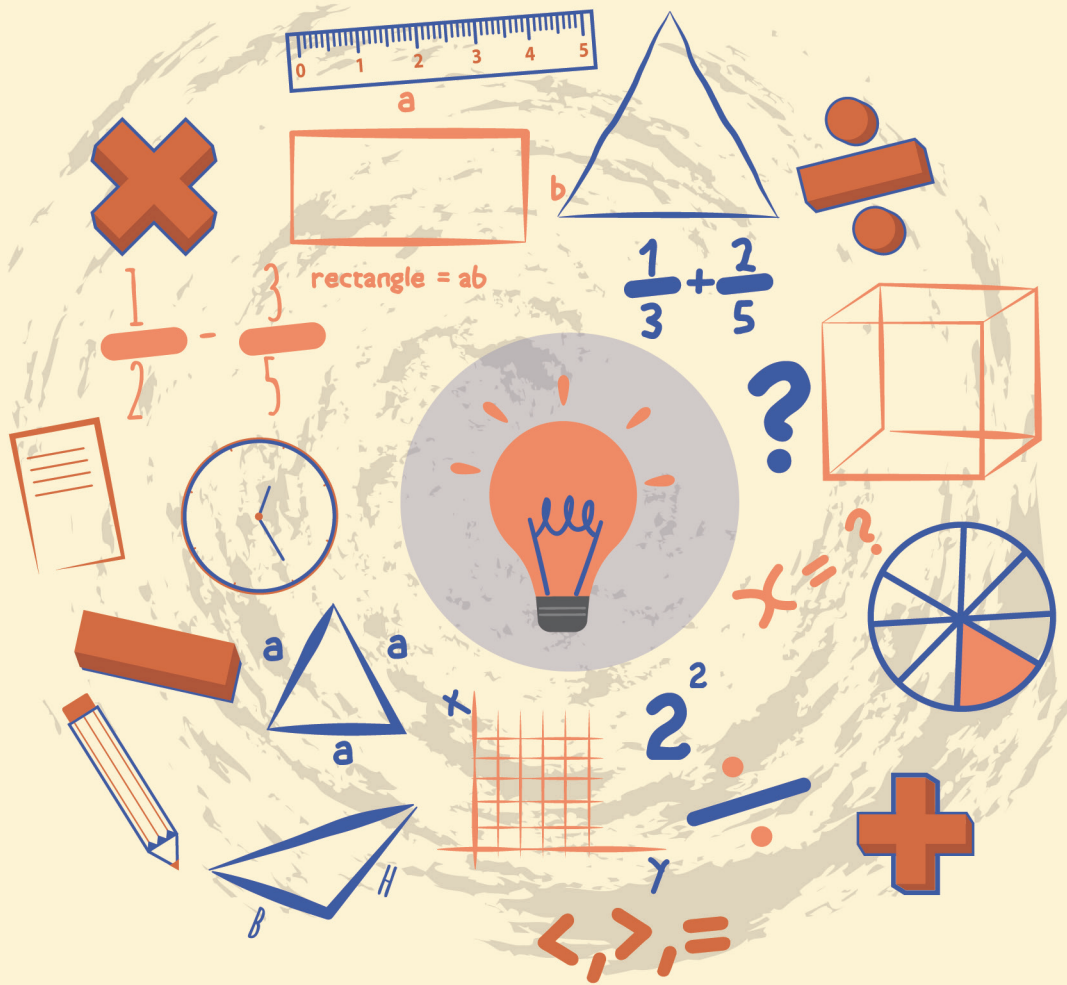




# 11+ Maths

# Geometry

# COURSE HANDBOOK



## Effective Crash Course

• Practice Questions • Homework • Past Paper Questions



# Contents

Practice

Homework

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## Chapter 1:

p. 1

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- Properties of Triangles
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- Polygons
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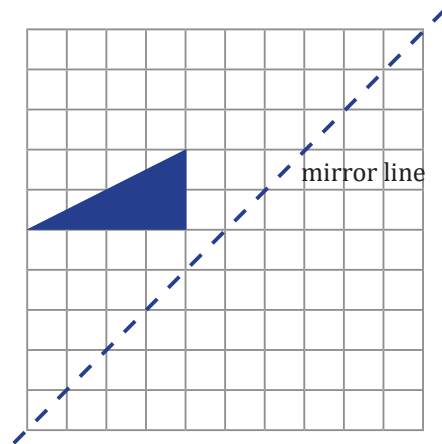
The page features a minimalist design with blue lines and yellow blocks. A vertical blue line is on the left, and a horizontal blue line crosses it. Another vertical blue line is on the right, and a horizontal blue line crosses it. Yellow rectangular blocks are positioned at the intersections of these lines. The text 'CHAPTER I' is centered between the horizontal lines.

# CHAPTER I

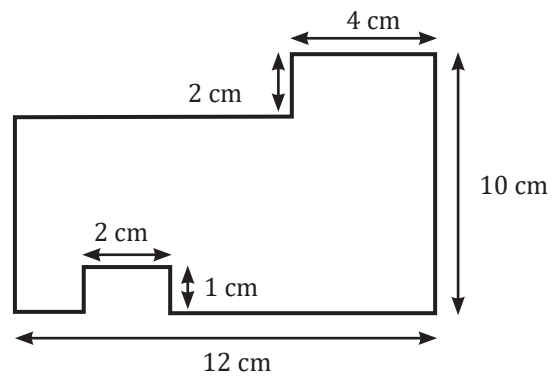


## Practice Questions

- 3 A mirror line is passing through a grid. Draw the reflection of the triangle in the mirror line



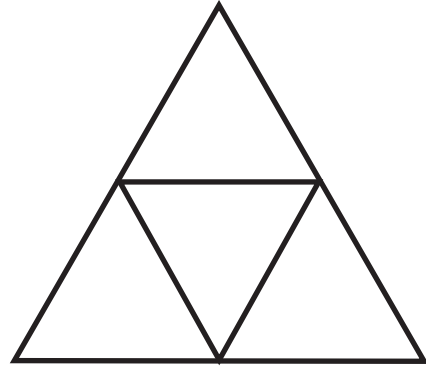
- 4 Find the perimeter and the area of the given diagram.





## Practice Questions

- 14 Many equilateral triangles of equal sizes have been put together to form a bigger equilateral triangle below.



The area of the biggest equilateral triangle is  $24 \text{ cm}^2$   
Find out the area of the smallest equilateral triangle.

- 15 Rachell folds a Rectangular piece of paper in half to give a square. If the area of the square is  $36 \text{ cm}^2$ . What was the perimeter of the rectangular sheet?



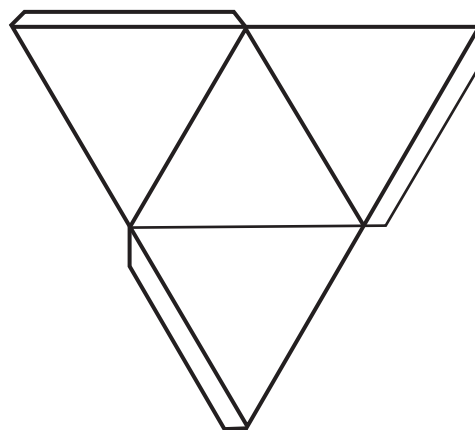
## Homework

- 9 The dimensions of the given rectangular wall are 2 m and 3.5 m. [2]



Find the amount of money required to paint the wall blue if the cost of painting is £100 per meter square.

- 10 What 3D shape will be made by folding the net above? [2]



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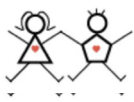
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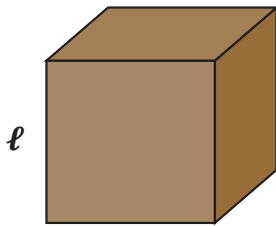
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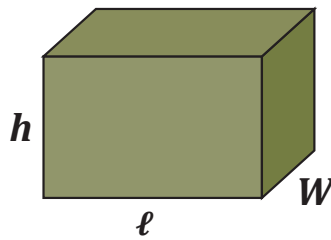
# Keypoints

## CUBE



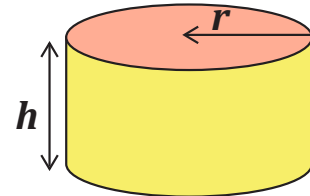
$$S.A = 6 \ell^2$$
$$V = \ell^3$$

## CUBOID



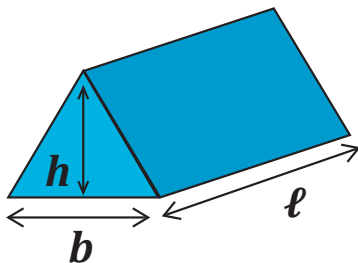
$$S.A = 2\ell w + 2wh + 2\ell h$$
$$V = \ell wh$$

## CYLINDER

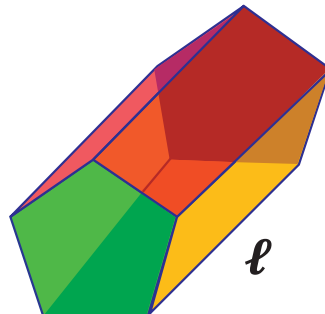


$$S.A = 2\pi r (r + h)$$
$$V = \pi r^2 h$$

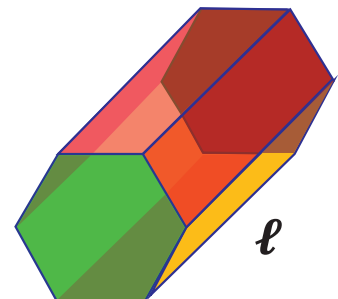
## TRIANGULAR PRISM



## PENTAGONAL PRISM

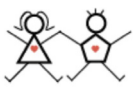


## HEXAGONAL PRISM



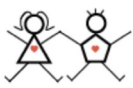
- Volume ( $V$ ) of any Prism = Area of base x Length ( $\ell$ )
- Surface Area ( $S.A$ ) = Combined area of all the faces





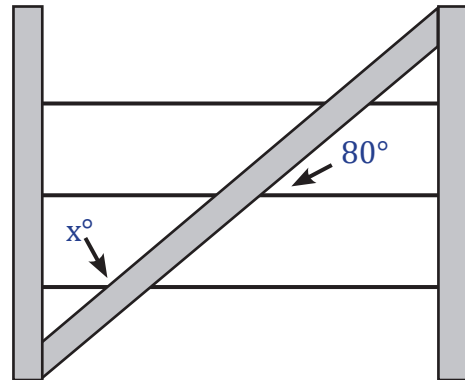
## Keywords

- |                      |
|----------------------|
| a) Surface Area      |
| b) Volume            |
| c) Prism             |
| d) Pyramid           |
| e) Cylinder          |
| f) Cube              |
| g) Cuboid            |
| h) Cubic centimetres |
| i) Slicing           |
| j) Pythagoras        |
| k) Body Diagonal     |

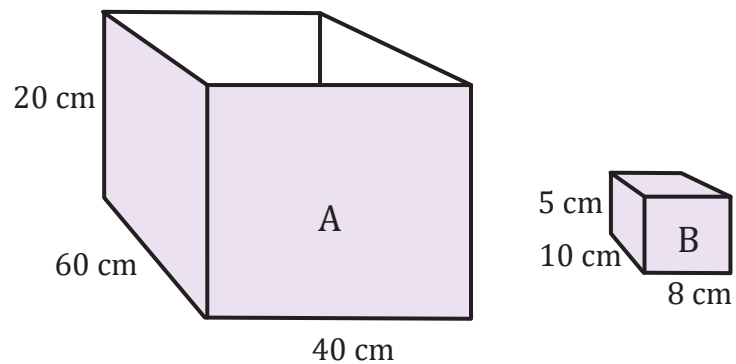


## Practice Questions

- 7 A diagonal brace strengthens the bridge fence and prevents it from sagging. The brace makes an  $80^\circ$  angle with the bridge as shown. Find the value of  $x^\circ$ .



- 8 Boxes A and B are both cuboids.  
How many of box B could be packed into box A?



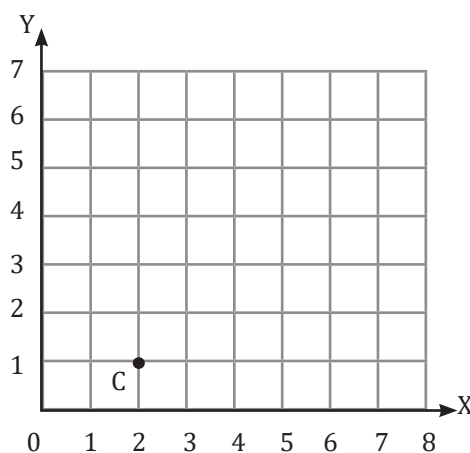


## Homework

15

A, B, C, D are 4 points on a grid. B is at (2,5), C is at (2,1) and D is at (6,1)

[2]



Point A is such that, when points A, B, C, and D are joined, a square is formed. Write the coordinates of point A.

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