

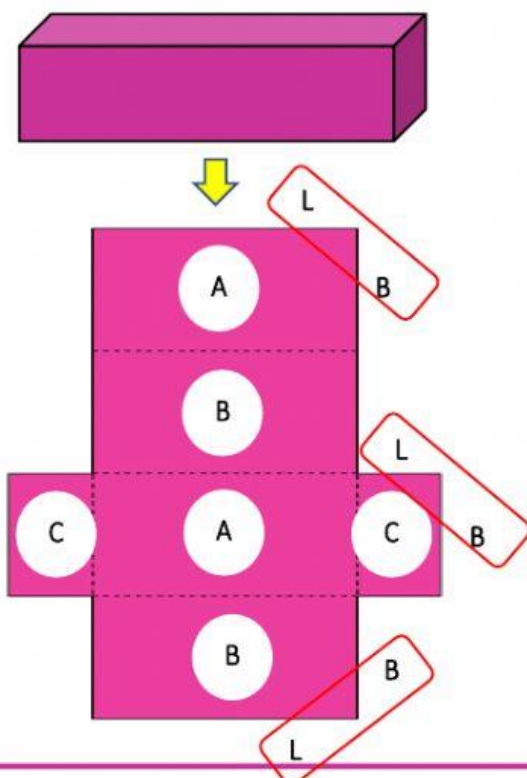
Find the missing side of A CUBOID, given surface area

Steps to Success:

1. Read & highlight
2. Draw the net of a cuboid
3. Label all the nets
4. Find the area of $A \times 2$
5. Find the area of $B \times 2$
6. Find the area of $C \times 2$
7. Add all the area:

$$\text{SA of Cuboid} = (\text{Area A} \times 2) + (\text{Area B} \times 2) + (\text{Area C} \times 2)$$

Net of a cuboid



$$\text{SA of Cuboid} = (\text{Area A} \times 2) + (\text{Area B} \times 2) + (\text{Area C} \times 2)$$

MISSING SIDE

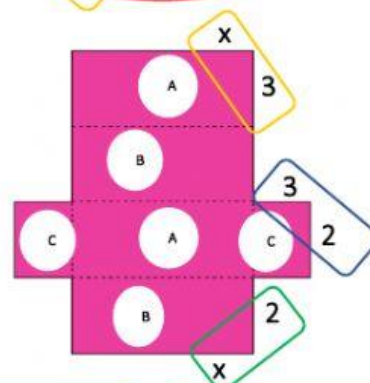
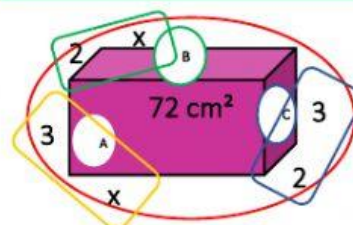
Steps to Success:

1. Read & highlight
2. Label the surface of the cuboid.
3. Put X on missing sides
4. Write the formula:

$$\text{SA of Cuboid} = (\text{Area A} \times 2) + (\text{Area B} \times 2) + (\text{Area C} \times 2)$$

5. Fill in the info & solve

6. Apply algebra → 7. Check



$$\begin{aligned} \text{Area of A} &= (X \times 3) \times 2 \\ &= 6X \text{ cm}^2 \end{aligned}$$

$$\begin{aligned} \text{Area of B} &= (X \times 2) \times 2 \\ &= 4X \text{ cm}^2 \end{aligned}$$

$$\begin{aligned} \text{Area of C} &= (3 \times 2) \times 2 \\ &= 12 \text{ cm}^2 \end{aligned}$$

$$\text{Total SA} = \text{Area A} + \text{Area B} + \text{Area C}$$

$$72 \text{ cm}^2 = 6X + 4X + 12$$

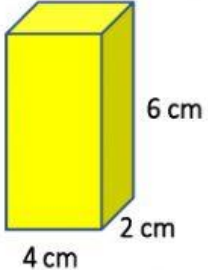
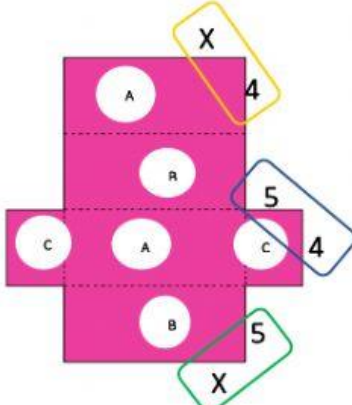
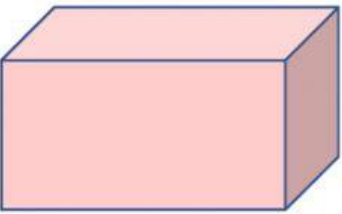
$$72 \text{ cm}^2 = 10X + 12$$

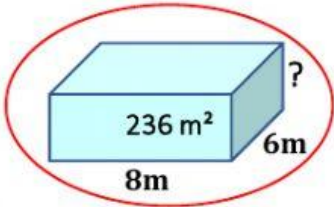
$$10X + 12 = 72 - 12$$

$$10X = 60 \div 10$$

$$X = 6 \text{ cm}$$

Answer all questions. Each question carries 2 marks.

BIL	QUESTION	ANSWER & WORKING SPACE
1	Work out the surface area of the cuboid below: 	Answer : _____ cm^2
2	The height and the breadth of a cuboid are 4cm and 5cm. The surface area of the cuboid is 220cm². Find the height of the cuboid. 	Answer : _____ cm
3	A cuboid measures 12m length, 7 m breadth and 8m height. Find the surface area of the cuboid. 	Answer : _____ m^2

BIL	QUESTION	ANSWER & WORKING SPACE
4	The length and the breadth of a cuboid are 8m and 6m. The surface area of the cuboid is 236m². Find the height of the cuboid. 	Answer : _____ m
5	The length and the breadth of a cuboid are 15 cm and 8 cm. The surface area of the cuboid is 700cm². Find the height of the cuboid.	Answer : _____ cm
6	The length and the height of a cuboid are 11 cm and 7 cm. The surface area of the cuboid is 478cm². Find the breadth of the cuboid.	Answer : _____ cm