

Find the missing side of A CUBOID, given surface area

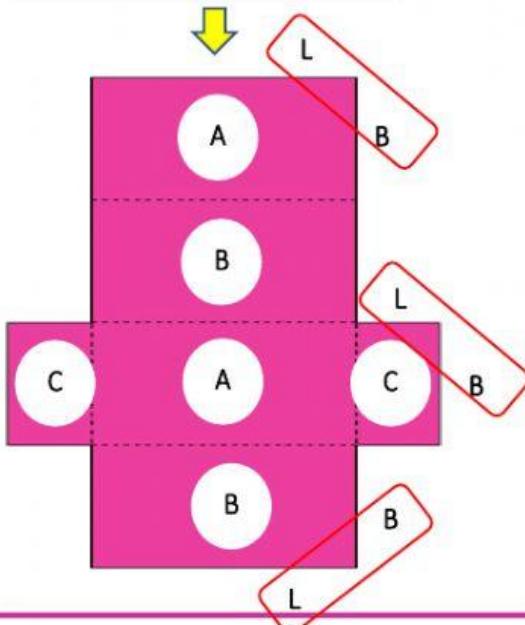
Steps to Success:

1. Read & highlight
2. Draw the net of a cuboid
3. Label all the nets
4. Find the area of A x 2
5. Find the area of B x 2
6. Find the area of C x 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



$$\text{SA of Cuboid} =$$

$$(\text{Area A} \times 2) + (\text{Area B} \times 2) + (\text{Area C} \times 2)$$

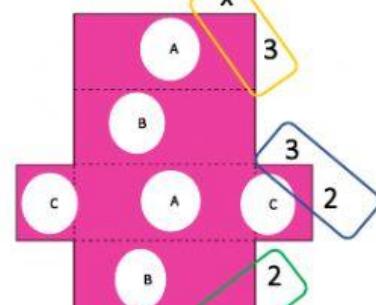
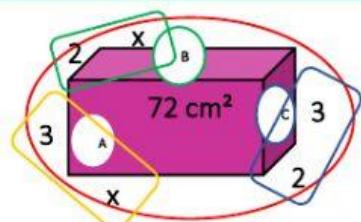
MISSING SIDE

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



$$\text{Area of A} = (X \times 3) \times 2$$

$$= 6X \text{ cm}^2$$

$$\text{Area of B} = (X \times 2) \times 2$$

$$= 4X \text{ cm}^2$$

$$\text{Area of C} = (3 \times 2) \times 2$$

$$= 12 \text{ cm}^2$$

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

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

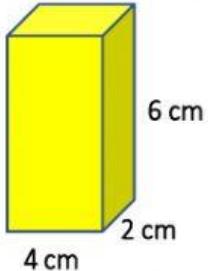
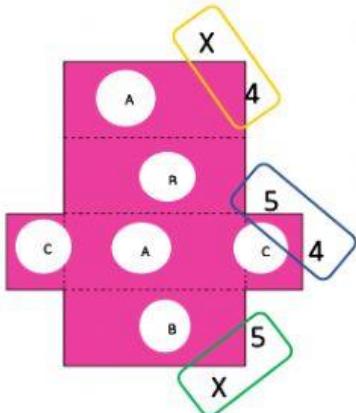
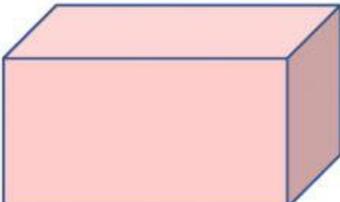
$$72 \text{ cm}^2 = 10X + 12$$

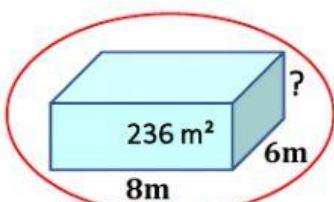
$$10X + 12 = 72 - 12$$

$$10X = 60 \div 10$$

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

Answer all questions. Each question carries 2 marks.

BIL	QUESTION	ANSWER & WORKING SPACE
1	<p>Work out the surface area of the cuboid below:</p>  <p>Answer : _____ cm²</p>	
2	<p>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.</p>  <p>Answer : _____ cm</p>	
3	<p>A cuboid measures 12m length, 7 m breadth and 8m height. Find the surface area of the cuboid.</p>  <p>Answer : _____ m²</p>	

BIL	QUESTION	ANSWER & WORKING SPACE
4	<p>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.</p> 	Answer : _____ m
5	<p>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.</p>	Answer : _____ cm
6	<p>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.</p>	Answer : _____ cm