

Worksheet

- Choose the correct option.
 - The volume of a cuboid whose length, breadth and height is 8 cm, 5 cm and 3 cm, respectively is
 - 16 cm^3
 - 120 cm^3
 - 32 cm^3
 - 39 cm^3
 - The volume of a cube whose side measures 6 cm is
 - 36 cm^3
 - 120 cm^3
 - 216 cm^3
 - 39 cm^3
 - If the length of a diagonal of a cube is $7\sqrt{3}$ cm each of its side is
 - 7 cm
 - 49 cm
 - 343 cm
 - 14 cm
 - The volume of a cuboid is 750 cm^3 . If its length, breadth and height are in the ratio 3 : 2 : 1, then find its length.
 - 20 cm
 - 5 cm
 - 15 cm
 - 10 cm
 - If the lateral surface area of a cube is 144 cm^2 , the volume of the cube is
 - 24 cm^3
 - 36 cm^3
 - 216 cm^3
 - 72 cm^3
- Fill in the blanks.
 - The volume of a cube of side 4 cm is _____ cm^3 .
 - The total surface area of a cube of side 3 cm is _____ cm^2 .
 - The volume of a cuboid is 756 cm^3 . If its length and breadth are 14 cm and 9 cm, then its height is _____ cm.
 - The volume of a cube is 343 cm^3 . Its surface area is _____ cm^2 .
 - The length of a diagonal of a cube whose side measures 3 cm is _____ cm.
- Find the volume, lateral surface area and the total surface area of the cuboid whose dimensions are:
 - length = 8 cm, breadth = 6 cm and height = 10 cm
 - length = 12 cm, breadth = 15 cm and height = 18 cm
 - length = 22 cm, breadth = 26 cm and height = 20 cm
- Find the volume and the total surface area of the cube whose side is 8 cm.
- A closed rectangular water cistern has dimensions of $8.5 \text{ m} \times 6 \text{ m} \times 3.5 \text{ m}$. Find the cost of iron sheet used for the cistern if 1 m^2 iron sheet cost ₹ 8.
- A box is made up of a iron sheet which costs ₹ 600 at ₹ 50 per square metre. If the box is 2 m wide, what is its length if the height of the box is 1 m?
- A room is 8 m long, 6 m wide and 3 m high. It has one door of length 1.5 m and breadth 0.5 m and two windows each of length 80 cm and breadth 60 cm. Find the cost of whitewashing the walls and roof of the room at the rate of ₹ 8 per m^2 .
- How many bricks will be needed to construct a wall 12 m long, 2.5 m high and 13.5 cm thick, if each brick measures $22.5 \text{ cm} \times 10 \text{ cm} \times 12 \text{ cm}$?
- A cuboid of dimension $18 \text{ m} \times 16 \text{ cm} \times 12 \text{ cm}$ is melted and recast into small cubes with side length 2.4 cm. How many such cubes are formed?

10. Three smaller cubes each of side 3 cm, 4 cm and 5 cm are melted to form a large cube. What is the ratio of the total surface area of the smaller cubes and the large cube?
11. How many boxes measuring 15 cm × 8 cm × 10 cm can be stored in a room of size 7.5 m × 4.8 m × 2.4 m?

Answers to Worksheet

1. a. ii b. iii c. i d. iii e. iii
2. a. 64 b. 54 c. 6 d. 294 e. $3\sqrt{3}$
3. a. 480 cm^3 , 280 cm^2 , 376 cm^2 b. 3240 cm^3 , 972 cm^2 , 1332 cm^2
c. 11440 cm^3 , 1920 cm^2 , 3064 cm^2
4. 512 cm^3 , 384 cm^2 5. ₹ 1628 6. $\frac{4}{3} \text{ m}$ 7. ₹ 1042.32
8. 1500 9. 25000 10. 25 : 18 11. 72000 cm