Subject: Maths Class:10 Topic: Ch.16 Surface Area & Volume

EXERCISE 16.1

1. A cuboid is 12 cm long, 9 cm wide and 5 cm high. Calculate the total surface area and volume of the cuboid.
2. Three cubes with edges 8 cm, 6 cm and 1 cm respectively are melted together and formed into a singe cube. Find the total surface area of the new cube.
3. The dimensions of a box are 50 cm × 36 cm × 25 cm. How much square cm of cloth is needed to make a cover for the box?
4. The area of each face of a cube is 100 cm^2. If the cube is cut into two equal parts by a plane parallel to the base then find the total surface area of each equal part.
5. An open box is made of wood 3 cm thick. Its external length, breadth and height are 146 cm, 116 cm and 83 cm respectively. Find the cost of painting the inner surface at ₹ 2 per 1000 sq. cm.
6. The sum of length, breadth and height of a cuboid is 19 cm. If length of the diagonal is 11 cm then calculate the total surface area of the cuboid.
7. A room whose floor is a square of side 6 m contains 180 cubic metres of air. Find the height of the room.
8. Find the number of bricks, each measuring 22 cm × 10 cm × 7 cm required to construct a wall 44 m long, 1.5 m high and 85 cm thick.
9. Find the length of the longest rod that can be placed in a room 10 m long, 8 m wide and 6 m high.
10. The volume of a cube is 512 cubic m. Find its edge.
11. Find the number of bricks, each measuring 20 cm × 10 cm × 7.5 cm required to construct a wall 5 m long, 30 cm wide and 3 m high.
12. The dimensions of a cuboid are in the ratio 5 : 3 : 2. If total surface area of the cuboid is 558 cm^2, then find their edges.