CLASS –IX
MATHEMATICS,
ADVANCE WORKSHEET
CHAPTER: SURFACE AREA

1. The sum of the length, breadth and height of a cuboid is 21 cm and the diagonal is of 13 cm. Find its surface area.
2. A right triangle whose sides are 3 cm and 4 cm is made to revolve about its hypotenuse. Find the surface area of the double cone formed.
3. If the edge of a cube is decreased by 20% , find the percentage decrease in surface area.
4. A cube of edge 4 cm is cut into cubes of edge of 1 cm. Calculate the total surface area of the small cubes. What is the ratio of surface area of small cubes to that of large cube?
5. The radius of the base of the cylinder is increased by 5% and height decreased by 10 %. Find the percentage increase or decrease in the lateral surface area of the cylinder.
6. A potter has a spherical shape clay of 2 cm radius. He wants to make four equal smaller spheres of the same total surface area as that of the larger one. Find the radius of the smaller sphere.
7. A cylinder and a cone have equal radii of their bases and heights. If their curved surface areas are in the ratio of 8:5, show that the ratio of radius of each to height as 3:4.
8. The cost of painting the total outside surface of a closed cylindrical oil tank, 50 paise per square dm is Rs.198. The height of the tank is six times the radius of the base of the tank. Find the radius and height of the tank.
9. Forty circular plates, each of the radius 7 cm and thickness 1.5 cm are placed one above the other to form a solid right circular cylinder. Find the total surface area of the cylinder so formed.
10. The length and breadth of a room are in the ratio of 3:2. The cost of polishing its floor at 25 paise per square meter is Rs. 37 and cost of white washing its walls at 5 paise per square meter is Rs. 18.75. Find the height of the room.

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