INDIAN SCHOOL NIZWA - WORKSHEET

MATHEMATICS

CH:13.Surface area and Volume

Name: _____ Date:_____ Class: IX Sec: ___

1. Find the surface area of a sphere of diameter 14 cm .
2. Find the volume of a right circular cone with radius 6 cm and height 7 cm .
3. The side of a cube is 2cm. Find the total surface area of the figure formed by joining two such cubes ?
4. What is the ratio of the whole surface area of a solid sphere and a solid hemisphere ?
5. The height of a right circular cylinder is 15 cm and volume is 2310 cm^3 then, find the base radius. [Take$\pi = \frac{22}{7}$]
6. A wall 4 m long, 3 m height and 12cm thick is made up of bricks each measuring 20cm x 12 cm x 6.5 cm. Find the number of bricks required to build the wall.
7. The volume of a cone of base radius 3 cm is 12 πcm^3. Find the slant height of the cone.
8. A cylinder of 6 m high , is open at the top. The circumference of its base is 22 m. Find its total surface area.
9. A circus tent is in the form of a cone of height 15 m and diameter 16 m. Find the length of the canvas needed to make the tent if the width of the canvas is 2m.
10. A hemispherical bowl is made of steel 0.25 cm thick. The inner radius of the bowl is 5 cm. Find the outer curved surface area of the bowl.

11. A cylindrical roller 2.5m in length, 1.75 m in radius when rolled on a road was found to cover the area of $5500m^2$. How many revolutions did it make?

12. Formula to find area of isosceles triangle is $\frac{7}{4}\sqrt{4b^2 - a^2}$, where b represents length of equal sides of an isosceles triangle. Find the area of the isosceles triangle, if the perimeter is 11cm and the base is 5cm.

13. The volume of a sphere is equal to two-thirds of the volume of a cylinder whose height and diameter are equal to the diameter of the sphere. State true or false and justify your answer.

14. A sphere of diameter 15.6 cm is melted and cast into a right circular cone of height 31.2c.m. Find the diameter of the base of the cone.

15. A cylindrical tube opened at both the ends is made of iron sheet which is 2cm thick. If the outer diameter is 16cm, and its length is 100cm, find how many cubic centimeters of iron has been used in making the tube?