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JSUNIL TUTORIAL

PUNJABI COLONY GALI 01

Class 8th

Volume and surface Area

- Q1.** The length of a metallic tube is 1m, its thickness is 1cm and its inner diameter is 12cm. Find the weight of the tube if the density of the metal is 7.7 g cm^3 .
- Q2.** A cylinder is open at both ends and is made of 1.5 cm thick metal. Its external diameter is 12cm and height is 84cm. What is the volume of metal used in making the cylinder? Also, find the weight of the cylinder if 1 cm^3 of the metal weighs 7.5g.
- Q3.** A solid cubical block of fine wood costs Rs256 at Rs500 per m^2 . Find its volume and the length of each side.
- Q4.** The dimensions of a metal block are 2.25m by 1.5m by 27cm. It is melted and recast into cubes, each of side 45cm. How many cubes are formed?
- Q5.** The external dimensions of a closed wooden box are 62cm ; 30cm and 18cm. If the box is made of 2cm thick wood, find the capacity of the box.
- Q6.** A box with a lid is made of wood which is 3cm thick. Its external length, breadth and height are 56cm, 39cm and 30cm respectively. Find the capacity of the box. Also, find the volume of wood used to make the box.
- Q7.** How many bricks will be required for a wall which is 8m long, 6m high and 22.5cm thick if each brick measures $25 \text{ cm} \times 11.25 \text{ cm} \times 6 \text{ cm}$?
- Q8.** Find the cost of painting 15 cylindrical pillars of a building at Rs2.50 per m^2 . If the diameter and height of each pillar is 48cm and 7m respectively.
- Q9.** A closed metallic cylindrical box is 1.25m high and it has a base whose radius is 35 cm. If the sheet of metal costs Rs80 per m^2 , find the cost of the material used in the box.
- Q10.** If the length of each edge of a cube is doubled, how many times does its surface area become?
- Q11.** Three cubes of metal with edges 5cm, 4cm and 3cm respectively are melted to form a single cube. Find the lateral surface area of the new cube formed.

- Q12.** The length, breadth and height of a cuboid are in the ratio 6:5:3. If its total surface area is 504cm^2 , find its dimensions.
- Q13.** The area of a courtyard is 3750m^2 . Find the cost of covering it with gravel to a height of 1cm if the gravel costs Rs6.40perm³.
- Q14.** Find the area of a regular pentagon each of whose sides measures 5cm and the radius of the inscribed circle is 3.5cm.
- Q15.** The floor of a building consists of 1200 tiles which are rhombus shaped and each of its diagonals are 15cm and 20 cm in length. Find the total cost of polishing the floor, if the cost per meter square is Rs10.
- Q16.** Find the area of a rhombus whose side is 4cm and whose altitude is 5cm. If one of its diagonal is 10cm long, find the length of the other diagonal.
- Q17.** The area of a trapezium is 180cm^2 and its height is 9cm. If one of the parallel sides is longer than the other by 6 cm, find the two parallel sides.
- Q18.** The area of a trapezium is 384 cm^2 . Its parallel sides are in the ratio 3:5 and the perpendicular distance between them is 12 cm. Find the length of each of the parallel sides.
- Q19.** ABCD is a trapezium in which $AB \parallel DC$, $AB= 78\text{cm}$, $CD=52\text{cm}$, $AD= 28\text{cm}$ and $BC=30\text{cm}$. Find the area of the trapezium.
- Q20.** The parallel sides of a trapezium are 25cm and 13cm, its non parallel sides are equal, each being 10cm. Find the area of the trapezium.