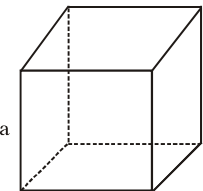
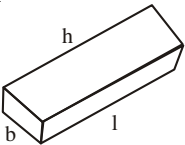
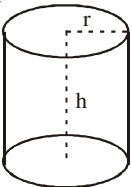
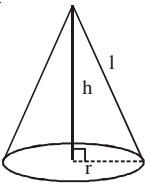
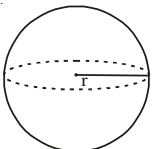
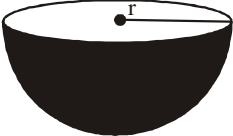


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SURFACE AREAS AND VOLUMES OF SOLID FIGURES

Name of the solid	Figure	Lateral Surface Area	Total surface Area	Volume
Cube		$4a^2$	$6a^2$	a^3
Cuboid		$2h(l + b)$	$2(lb + bh + lh)$	lbh
Cylinder		$2\pi rh$	$2\pi r(r + h)$	$\pi r^2 h$
Cone		πrl	$\pi r(l + r)$	$\frac{1}{3} \pi r^2 h$
Sphere		$4\pi r^2$		$\frac{4}{3} \pi r^3$
Hemisphere		$2\pi r^2$	$3\pi r^2$	$\frac{2}{3} \pi r^3$

CHECK YOUR PROGRESS:

- The radius and height of a right circular cylinder are $10\frac{1}{2}$ cm and 12cm respectively. Its curved surface area is (use $\pi = \frac{22}{7}$):
(A) 396cm^2 (B) 792cm^2 (C) 1188cm^2 (D) 132cm^2
- The volume of a right circular cylinder is 4620 cm^3 and its base radius is 14cm. The curved surface area of the cylinder is (use $\pi = \frac{22}{7}$):
(A) 330cm^2 (B) 440cm^2 (C) 660cm^2 (D) 990cm^2
- The base radius and height of a right circular cone are 3.5cm and 12cm respectively. Its curved surface area is (use $\pi = \frac{22}{7}$):
(A) 550cm^2 (B) 137.5cm^2 (C) 275cm^2 (D) 12.5cm^2
- The volume of a hemispherical bowl is 2425.5 cm^3 . The radius of the hemisphere is :
(A) 5.25cm (B) 10.5cm (C) 15.75cm (D) 12cm
- The surface area of a sphere is 1386cm^2 . Its volume is :
(A) 9702cm^3 (B) 2425.5cm^3 (C) 441cm^3 (D) 4851cm^3
- If the surface area of a cube is 864 cm^2 , find its side and volume.
- The radius of a road roller is 42cm and it is 1 meter long. If it takes 250 revolutions to level a playground, find the cost of levelling the ground at the rate of Rs. 5 per sq. m (use $\pi = \frac{22}{7}$)
- A conical tent is 3m high and its base radius is 4m. Find the cost of canvas required to make the tent at the rate of Rs. 50 per m^2 (use $\pi = 3.14$)
- The diameter of a solid hemispherical toy is 35 cm, find its
 - Curved surface area
 - Total surface area
 - Volume
- The base radii of two right circular cylinders of the same height are in the ratio 3 : 5. Find the ratio of their volumes.

