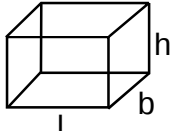


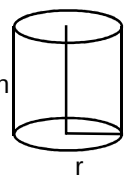
Surface Area and Volume

Length of diagonal = $\sqrt{l^2 + b^2 + h^2}$



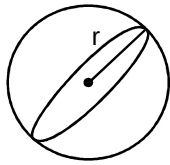
T.S.A = $2(lb + bh + hl)$
C.S.A = $2h(l + b)$
Volume = $l \times b \times h$

Cuboid



C.S.A = $2\pi rh$
T.S.A = $2\pi rh + 2\pi r^2$
 $= 2\pi r(r + h)$
Volume = $\pi r^2 h$

Cylinder

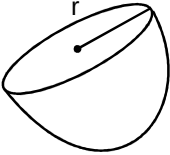


T.S.A = C.S.A = $4\pi r^2$
Volume = $\frac{4}{3}\pi r^3$

Sphere

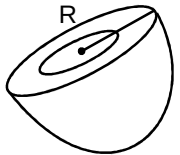
SURFACE AREA
AND VOLUME

Hemi - Sphere



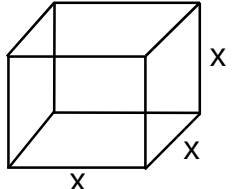
C.S.A = $2\pi r^2$
T.S.A = $2\pi r^2 + \pi r^2 = 3\pi r^2$
Volume = $\frac{2}{3}\pi r^3$

Hollow hemi-sprere



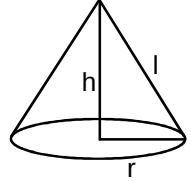
C.S.A = $2\pi(R^2 + r^2)$
T.S.A = $2\pi(R^2 + r^2) + \pi(R^2 - r^2)$
Volume = $\frac{2}{3}\pi(R^3 - r^3)$

Cube



T.S.A = $2(x^2 + x^2 + x^2) = 6x^2$
C.S.A = $4x^2$
Volume = x^3
Length of diagonal = $x\sqrt{3}$

Cone



C.S.A = πrl
T.S.A = $\pi rl + \pi r^2$
 $= \pi r(l + r)$
Volume = $\frac{1}{3}\pi r^2 h$
 $l = \sqrt{h^2 + r^2}$ (Slant height)