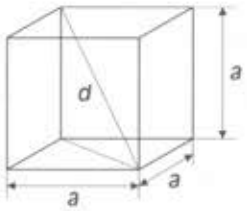
Volumes - Cálculo de volume de figuras geométricas

CONSERV® ENGENHARIA

Cubo

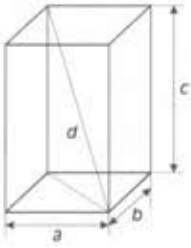


$V = a^3$

$S = 6 \cdot a^2$

$d = a\sqrt{3}$

Paralelepípedo

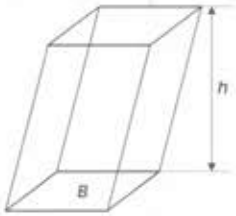


$V = a \cdot b \cdot c$

$S = 2(ab+ac+bc)$

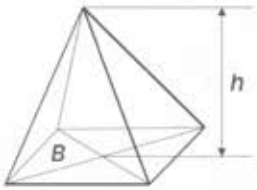
$d = \sqrt{a^2 + b^2 + c^2}$

Paralelepípedo oblíquo



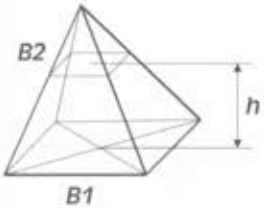
$V = B \cdot h$

Pirâmide



$V = \frac{B \cdot h}{3}$

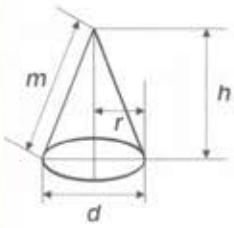
Tronco de Pirâmide



$V = \frac{h}{3} \cdot (B1 + B2 + \sqrt{B1 \cdot B2})$

$= \sim h\,(\frac{B1 + B2}{2})$

Cône



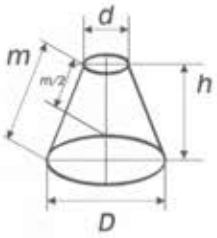
$V = \frac{r^2 \cdot \pi \cdot h}{3}$

$SL = r \cdot \pi \cdot m$

$Sr = r \cdot \pi\,(r + m)$

$m = \sqrt{h^2 + (\frac{d}{2})^2}$

Tronco de Cône

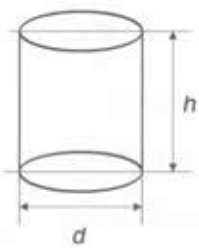


$V = \frac{\pi \cdot h}{12}\,(D^2 + Dd + d^2)$

$SL = \frac{\pi \cdot m}{2}\,(D + d) = 2\pi ph$

$m = \sqrt{(\frac{D - d}{2})^2 + h^2}$

Cilindro

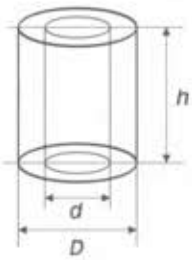


$v = h\,\frac{d^2 \cdot \pi}{4}$

$SL = 2r\pi h$

$Sr = 2r\pi(r+h)$

Cilindro Oco



$V = \frac{\pi\, h}{4}\,(D^2 - d^2)$

Valor de $\pi = 3{,}141592...$