

VOLUME

Unité
m³

Unité
L

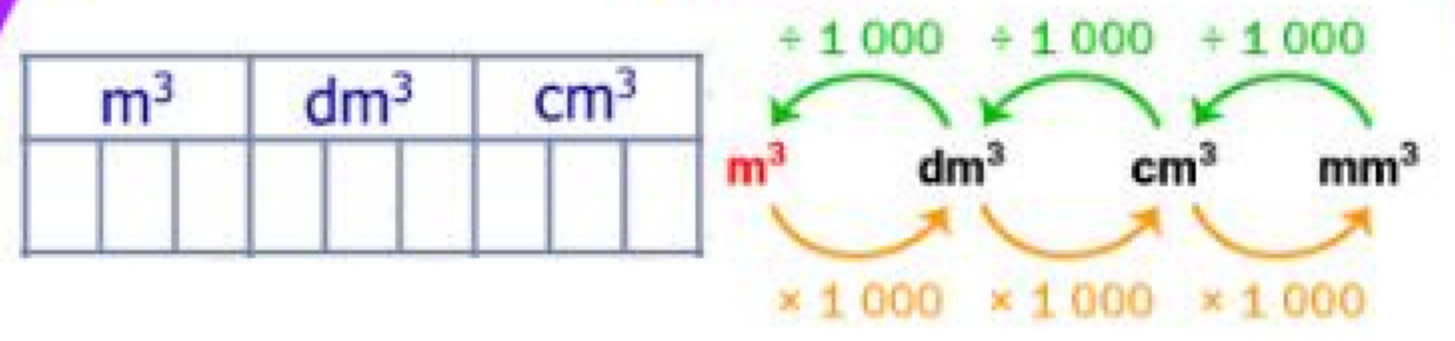
1 L = 1 dm³

Capacité

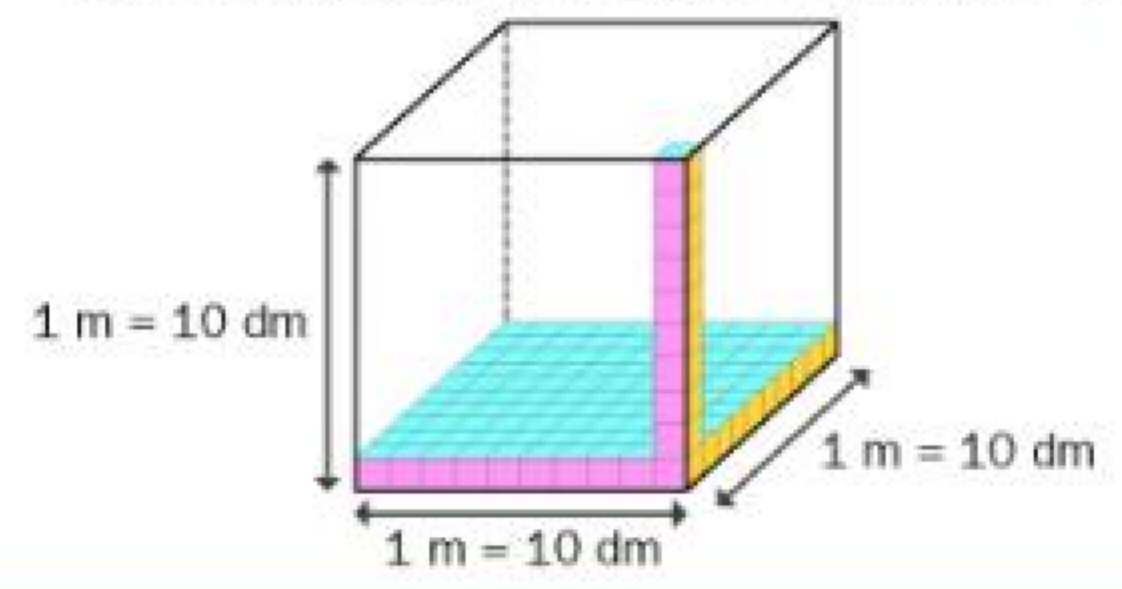
Ordres de grandeur de capacités

- Un verre → 25cL
- Une bouteille de soda → 1,5 L
- Un bain → environ 140 L

Conversions



1 m³ = 10 dm × 10 dm × 10 dm = 1 000 dm³ = 1000 L



Exemples

12,5 m³ = 12 500 dm³ = 12 500 L
 430 L = 430 dm³ = 0,43 m³

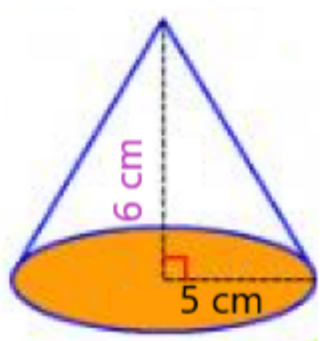
FORMULES

Deux bases parallèles

V = aire de la base × hauteur

Prisme droit

V = Aire_{base} × h



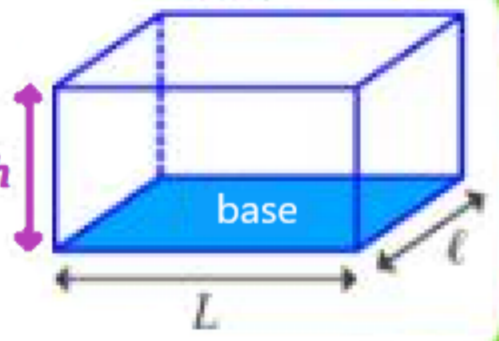
Exemple de calcul

$$\begin{aligned}
 V &= \frac{\pi \times r^2 \times h}{3} \\
 &= \frac{\pi \times 5^2 \times 6}{3} \\
 &= 50 \pi \text{ cm}^3 \\
 &\approx 157,1 \text{ cm}^3
 \end{aligned}$$

Valeur exacte

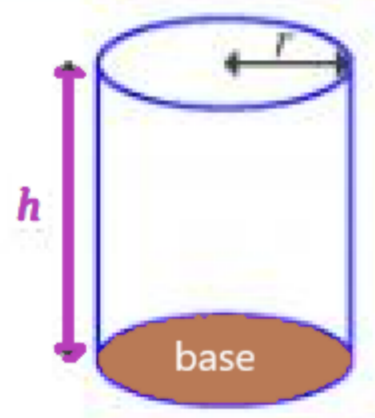
Pavé droit

V = Aire_{rectangle} × h
 V = L × l × h



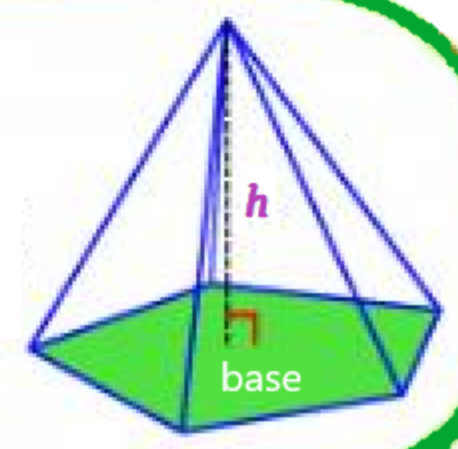
Cylindre

V = Aire_{disque} × h
 V = π × r² × h



Pyramide

V = $\frac{\text{Aire}_{\text{base}} \times h}{3}$



Cône

V = $\frac{\text{Aide}_{\text{disque}} \times h}{3}$
 V = $\frac{\pi \times r^2 \times h}{3}$

