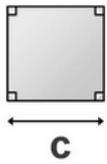


## FICHE MÉMENTO : Périmètres – Aires – Volumes

### Périmètre et aires des principales figures géométriques

**Carré :**



**Périmètre :**

$$P = \sum \text{côtés} = 4c$$

**Aire :**

$$A = c \times c = c^2$$

**Rectangle :**



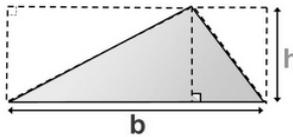
**Périmètre :**

$$P = \sum \text{côtés} = 2L + 2l$$

**Aire :**

$$A = L \times l$$

**Triangle :**



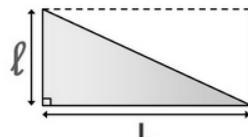
**Périmètre :**

$$P = \sum \text{côtés}$$

**Aire :**

$$A = \frac{b \times h}{2}$$

**Triangle rectangle :**



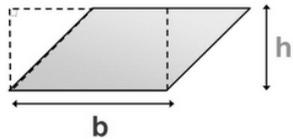
**Périmètre :**

$$P = \sum \text{côtés}$$

**Aire :**

$$A = \frac{L \times l}{2}$$

**Parallélogramme :**



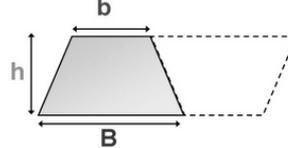
**Périmètre :**

$$P = \sum \text{côtés}$$

**Aire :**

$$A = b \times h$$

**Trapèze :**



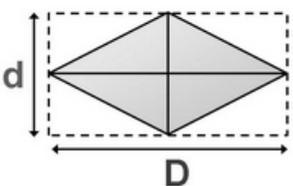
**Périmètre :**

$$P = \sum \text{côtés}$$

**Aire :**

$$A = \frac{(B + b) \times h}{2}$$

**Losange :**



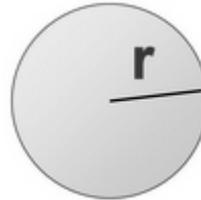
**Périmètre :**

$$P = \sum \text{côtés}$$

**Aire :**

$$A = \frac{D \times d}{2}$$

**Cercle / Disque :**



**Périmètre :**

$$P = 2\pi r$$

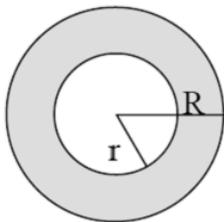
$$P = \pi D$$

**Aire :**

$$A = \pi r^2$$

$$A = \pi \times \left(\frac{D}{2}\right)^2 = \frac{\pi \times D^2}{4}$$

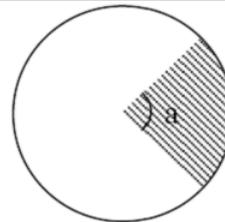
**Couronne :**



**Aire :**

$$A = \pi R^2 - \pi r^2$$

**Secteur circulaire :**



**Périmètre :**

$$P = 2\pi R \times \frac{a}{360}$$

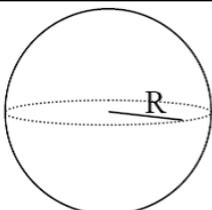
$$P = \pi D \times \frac{a}{360}$$

**Aire :**

$$A = \pi \times R^2 \times \frac{a}{360}$$

$$A = \frac{\pi \times D^2}{4} \times \frac{a}{360}$$

**Sphère / Boule :**

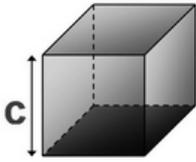


**Aire :**

$$A = 4\pi r^2$$

**Volumes de principaux solides**

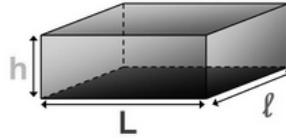
**Cube :**



**Volume :**

$$V = c \times c \times c = c^3$$

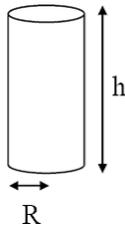
**Parallélépipède :**



**Volume :**

$$V = L \times l \times h$$

**Cylindre :**



**Volume :**

$$V = \text{aire de la base} \times h$$

$$V = \pi R^2 \times h$$

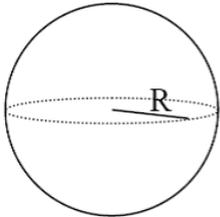
**Prisme :**



**Volume :**

$$V = \text{aire de la base} \times h$$

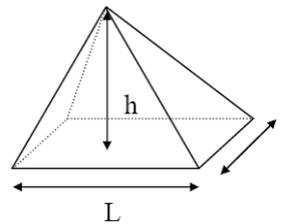
**Sphère :**



**Volume :**

$$V = \frac{4}{3} \pi R^3$$

**Pyramide à base carré ou rectangle :**

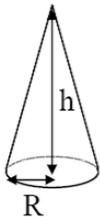


**Volume :**

$$V = \frac{\text{aire de la base} \times h}{3}$$

$$V = \frac{L \times l \times h}{3}$$

**Cône :**

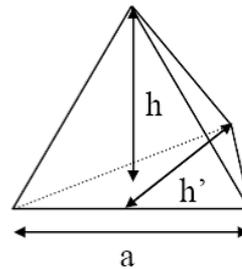


**Volume :**

$$V = \frac{\text{aire de la base} \times h}{3}$$

$$V = \frac{\pi R^2 \times h}{3}$$

**Tétraèdre :**



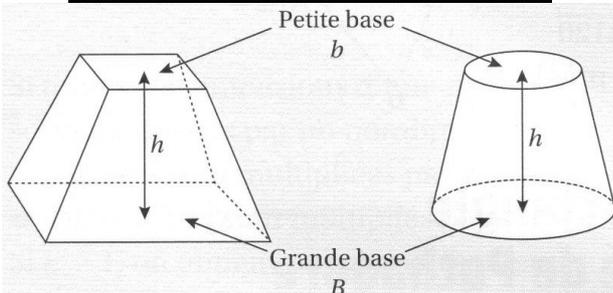
**Volume :**

$$V = \frac{\text{aire de la base} \times h}{3}$$

$$V = \text{aire de la base} \times \frac{h}{3}$$

$$V = \frac{a \times h'}{2} \times \frac{h}{3}$$

**Tronc de cône, tronc de pyramide :**

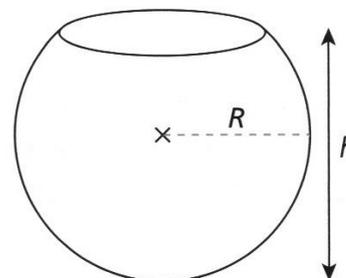


**Volume :**

$$V = \frac{h}{3} \times [B + b + \sqrt{B \times b}]$$

avec : B : aire de la grande base  
b : aire de la petite base

**Calotte sphérique :**



**Volume :**

$$V = \frac{1}{3} \times \pi \times h^2 \times (3R - h)$$