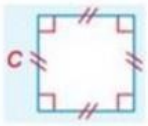
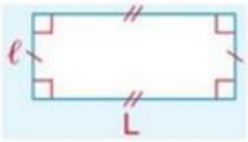
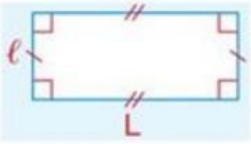
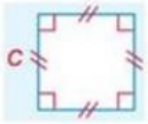
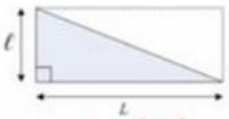
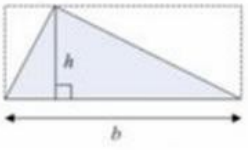
FORMULAIRE PÉRIMÈTRE, AIRES ET VOLUMES

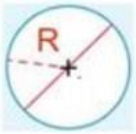
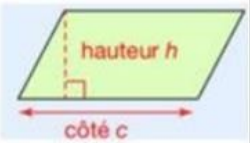
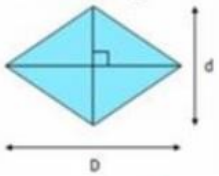
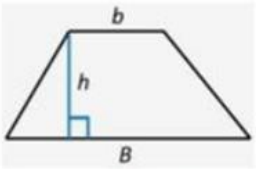
Pour appliquer une formule, les longueurs doivent être exprimées **dans la même unité.**

I. Périmètre

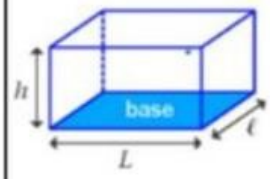
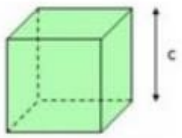
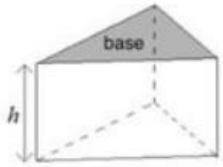
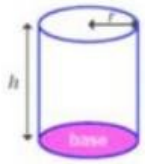
Carré	Rectangle	Cercle
		
$P = 4 \times c$	$P = 2 \times L + 2 \times l$ ou $P = 2 \times (L + l)$	$P = d \times \pi$ ou $P = 2 \times r \times \pi$

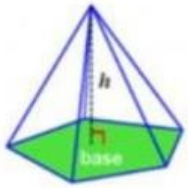
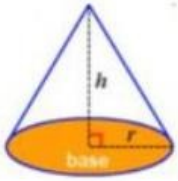
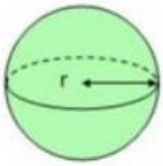
II. Aire

Rectangle	Carré	Triangle rectangle	Triangle
			
$A = L \times l$	$A = c \times c = c^2$	$A = \frac{L \times l}{2}$	$A = \frac{b \times h}{2}$

Disque	Parallélogramme	Losange	Trapèze
			
$A = \pi \times R \times R = \pi \times R^2$	$A = c \times h$	$A = \frac{d \times D}{2}$	$A = \frac{(b+B) \times h}{2}$

III. Volumes

Pavé droit	Cube	Prisme droit	Cylindre de révolution
			
$V = L \times l \times h$	$V = c \times c \times c = c^3$	V = Aire de la base x h	$V = \pi \times r^2 \times h$

Pyramide	Cône de révolution	Boule
		
$V = \frac{Aire\ de\ la\ base \times h}{3}$	$V = \frac{\pi \times r^2 \times h}{3}$	$V = \frac{4}{3}\pi r^3$

TABLEAUX DE CONVERSION

Les longueurs

km	hm	dam	m	dm	cm	mm

Les aires

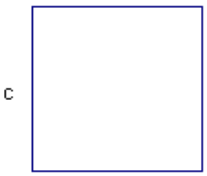
km^2		hm^2		dam^2		m^2		dm^2		cm^2		mm^2	
			ha		a		ca						

Les volumes

km^3			hm^3			dam^3			m^3			dm^3			cm^3			mm^3		
											kL	hL	daL	L	dL	cL	mL			

PERIMETRES ET AIRES

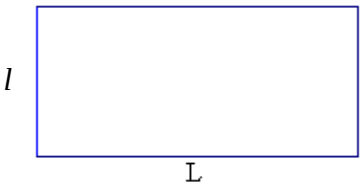
CARRE



Périmètre = $4 \times c$

Aire = c^2

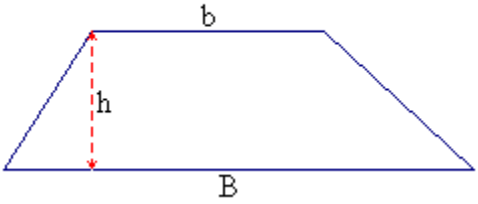
RECTANGLE



Périmètre = $2 \times (L + l) = 2 \times L + 2 \times l$

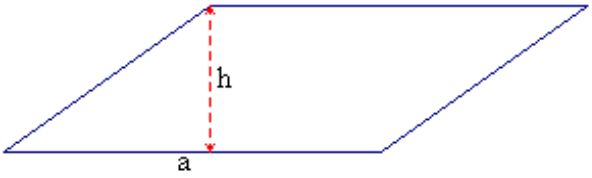
Aire = $L \times l$

TRAPEZE



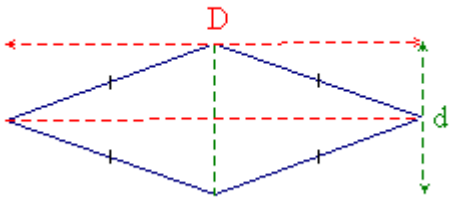
$$\text{Aire} = \frac{(B+b)\times h}{2}$$

PARALLELOGRAMME



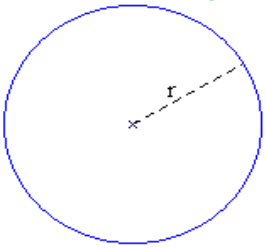
$$\text{Aire} = a \times h$$

LOSANGE



$$\text{Aire} = \frac{d \times D}{2}$$

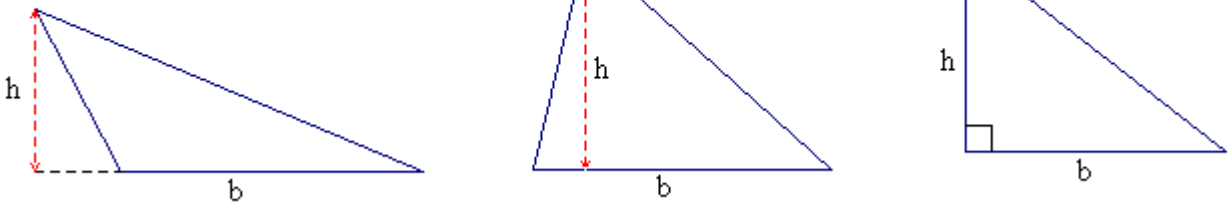
CERCLE ET DISQUE



$$\text{Périmètre du cercle} = 2\pi r$$

$$\text{Aire du disque} = \pi \times r^2$$

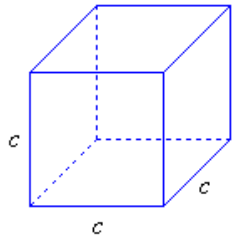
TRIANGLES



$$\text{Aire} = \frac{b \times h}{2}$$

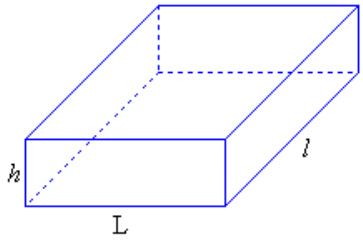
SOLIDES

CUBE



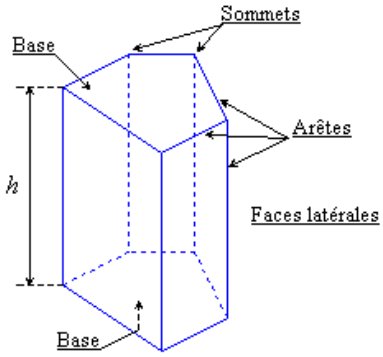
Aire = $6 \times c^2$
Volume = c^3

PAVE DROIT



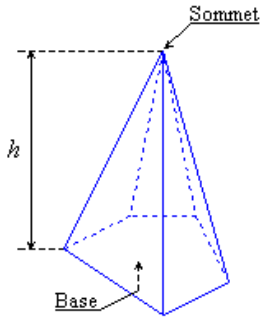
Aire = $2 \times (L \times l + L \times h + l \times h)$
Volume = $L \times l \times h$

PRISME DROIT



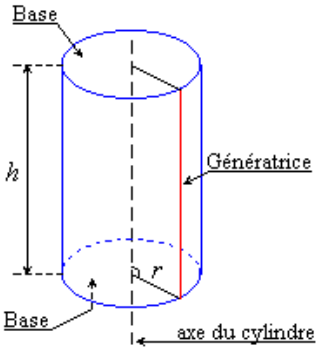
Aire = périmètre de la base × h + 2 × aire de la base
Volume = aire de la base × h

PYRAMIDE



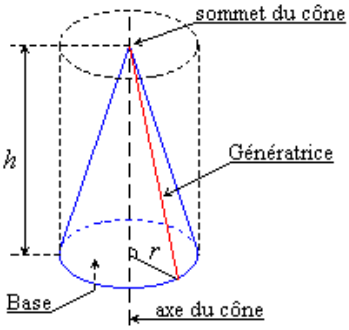
Volume = $\dfrac{\text{Aire de la base} \times h}{3}$

CYLINDRE DE REVOLUTION



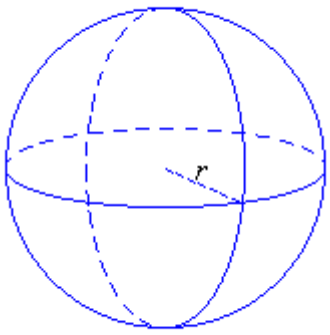
Aire = $2 \pi r h + 2 \pi r^2$
Volume = $\pi r^2 h$

CÔNE DE REVOLUTION



Volume = $\dfrac{\pi r^2 h}{3}$

SPHERE - BOULE



$Aire = 4 \times \pi \times r^2$

$Volume = \dfrac{4}{3} \times \pi \times r^3$