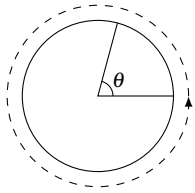


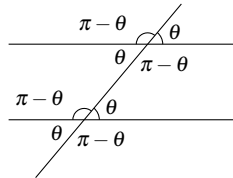
Formulaire de géométrie

Angles

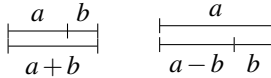


$$1 \text{ tour} = 2\pi \text{ rad} = \tau \text{ rad} \\ = 360^\circ = 400 \text{ grad} = 4 \text{ droits}$$

$$\frac{\theta_{\text{tours}}}{1} = \frac{\theta_{\text{rad}}}{2\pi} = \frac{\theta_{\text{deg}}}{360} = \text{etc.}$$

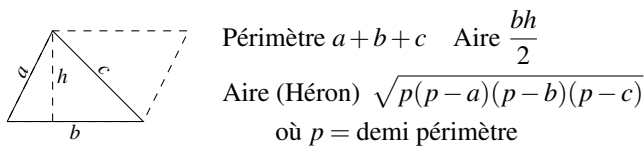
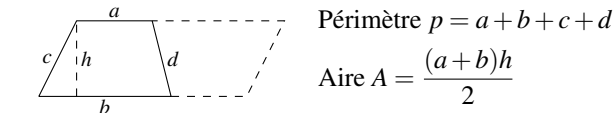
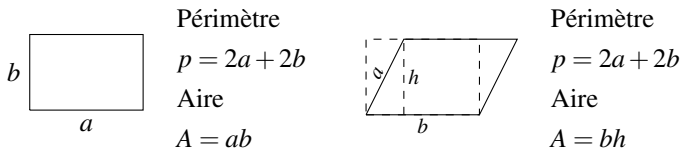


Longueurs

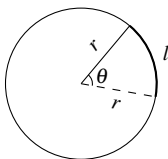


Périmètre et aires des figures de base

Rectangles et aires dérivées



Cercles



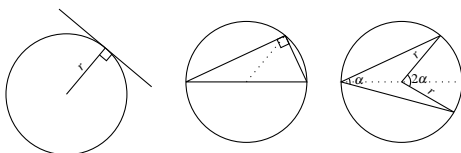
$$\text{Circonférence } C = 2\pi r$$

$$\text{Aire } A = \pi r^2$$

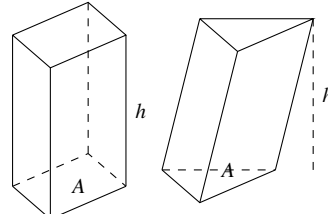
$$\text{Longueur d'arc } l = \theta r$$

$$\text{Aire secteur } A_s = \frac{\theta r^2}{2}$$

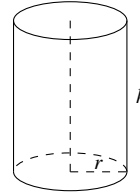
Angles et cercles



Prismes et cylindres

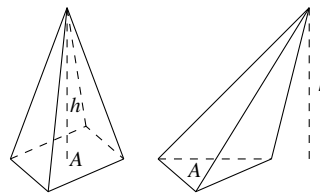


Pour toutes bases
 Pour obliques aussi
 Surface base : A
 Volume $V = Ah$



Circonférence base $C = 2\pi r$
 Surface base $A = \pi r^2$
 Surface latérale $S = Ch$
 Volume $V = Ah$

Pyramides et cônes



Pour toutes bases
 Pour obliques aussi
 Volume

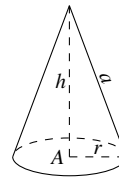
$$V = \frac{\text{Vol. du prisme de base } A}{3}$$

Circonférence base $C = 2\pi r$

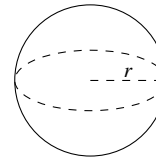
Surface base $A = \pi r^2$

Surface latérale $S = \frac{Ca}{2}$

Volume $V = \frac{Ah}{3}$



Sphère



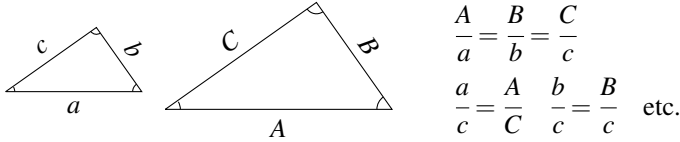
Surface $S = 4\pi r^2$

Volume $V = 4\pi \frac{r^3}{3}$

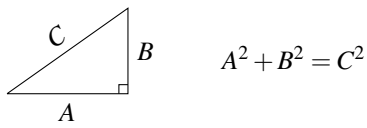
Trigonométrie de base

Similitude

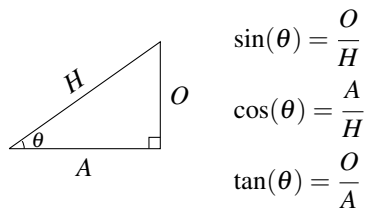
Dans deux triangles semblables, les proportions des côtés correspondants sont toujours les mêmes.



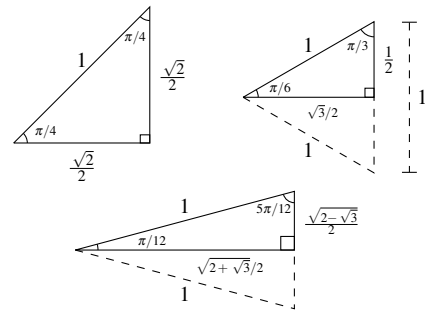
Thm. de Pythagore



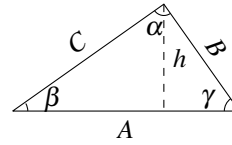
Rapports trigonométriques



Triangles remarquables

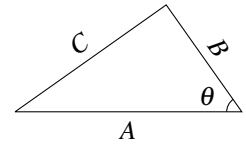


Loi des sin



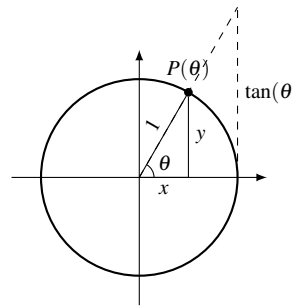
$$\frac{A}{\sin(\alpha)} = \frac{B}{\sin(\beta)} = \frac{C}{\sin(\gamma)}$$

Loi des cos



$$C^2 = A^2 + B^2 - 2AB \cos(\theta)$$

Cercle trigonométrique



$\cos(\theta) = x$
 $\sin(\theta) = y$
 $\cos^2(\theta) + \sin^2(\theta) = 1$
 $\tan(\theta) = \frac{y}{x} = \frac{\sin(\theta)}{\cos(\theta)} = \frac{\tan(\theta)}{1}$