Formules de géométrie

POLYC1 2023-2024

Contenu :

- Périmètre
- Aire
- Volume



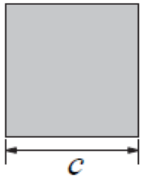
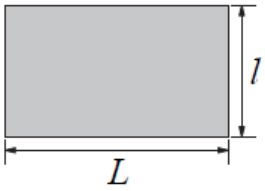
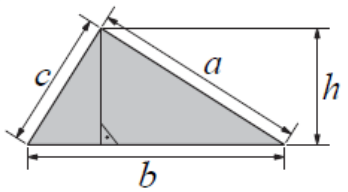
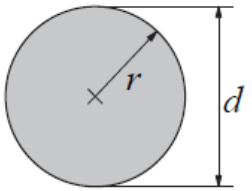
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v07

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Périmètres et aires (1/2)

Le petit formulaire

Figure	Périmètre	Aire
Carré 	$4 \cdot c$	c^2
Rectangle 	$2 \cdot (L + l)$	$L \cdot l$
Triangle 	$a + b + c$	$\frac{b \cdot h}{2}$
Disque 	$\pi \cdot d = \pi; \cdot 2r$	$\pi \cdot r^2$

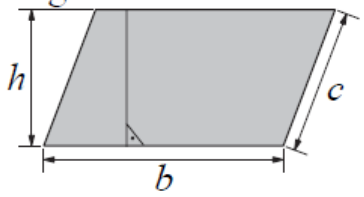
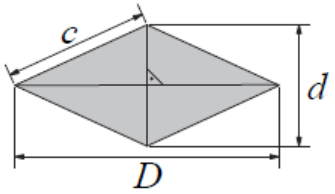
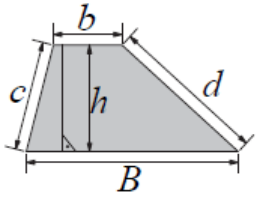
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Périmètres et aires (2/2)

Le petit formulaire

Figure	Périmètre	Aire
Parallélogramme 	$2 \cdot (b + c)$	$b \cdot h$
Losange 	$4 \cdot c$	$\frac{D \cdot d}{2}$
Trapèze 	$B + b + c + d$	$\frac{B + b}{2} \cdot h$

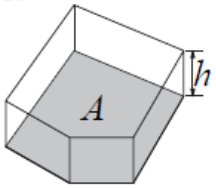
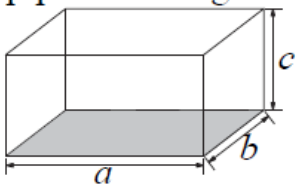
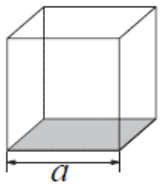
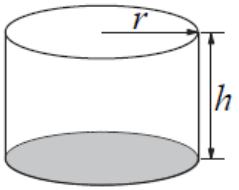
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Les volumes (1/3)

Le petit formulaire

Corps	Volume
Prisme droit 	aire de la base · hauteur = $A \cdot h$
Parallélépipède rectangle 	aire de la base · hauteur = $a \cdot b \cdot c$
Cube 	aire de la base · hauteur = a^3
Cylindre 	aire de la base · hauteur = $\pi \cdot r^2 \cdot h$

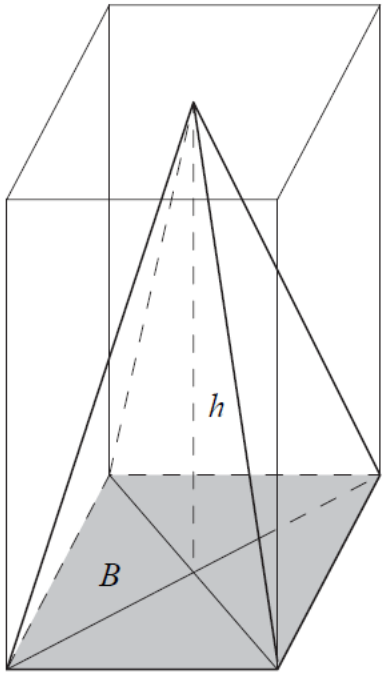
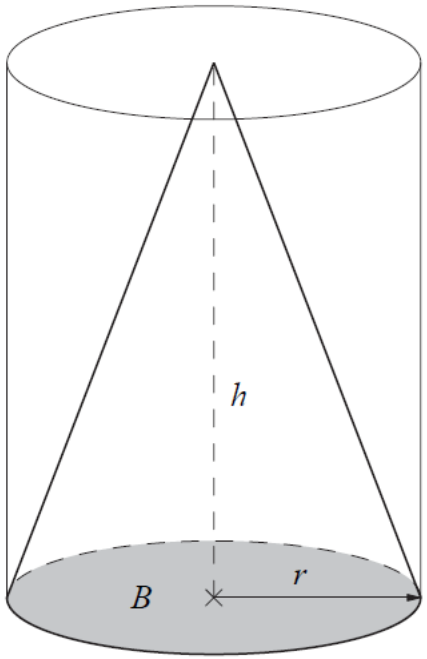
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Les volumes (2/3)

Le petit formulaire

	Pyramide régulière	Cône droit
		
Volume (V)	$V = \frac{\text{aire de la base} \cdot \text{hauteur}}{3}$	
	$V = \frac{B \cdot h}{3}$	$V = \frac{\pi \cdot r^2 \cdot h}{3}$

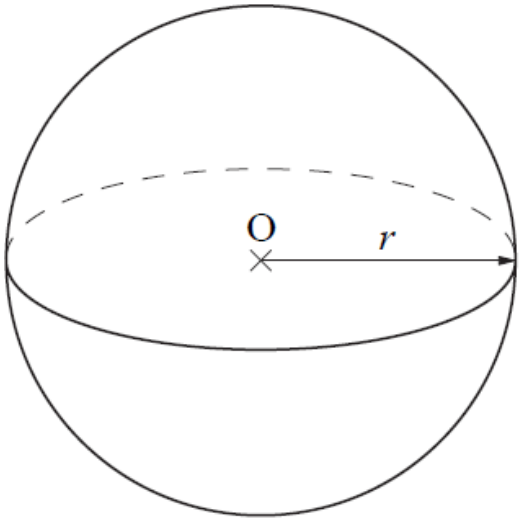
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Les volumes (3/3)

Le petit formulaire



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O : centre de la sphère
r : rayon de la sphère

Volume de la sphère

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

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