

Feuille de formules

Cours théorique, 9^e année

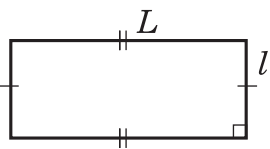
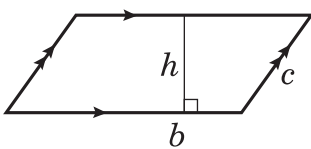
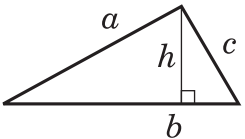
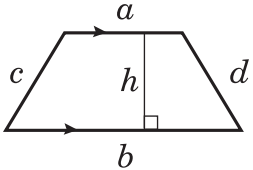
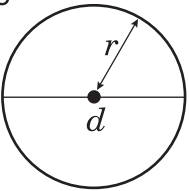
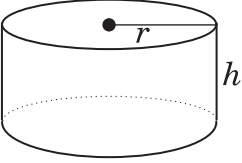
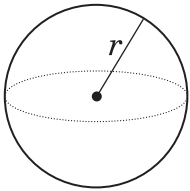
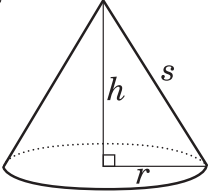
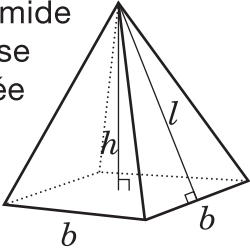
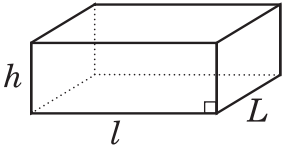
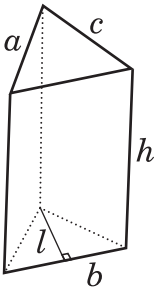
Figure géométrique	Périmètre	Aire
<p>Rectangle</p> 	$P = L + L + l + l$ <i>ou</i> $P = 2(L + l)$	$A = Ll$
<p>Parallélogramme</p> 	$P = b + b + c + c$ <i>ou</i> $P = 2(b + c)$	$A = bh$
<p>Triangle</p> 	$P = a + b + c$	$A = \frac{bh}{2}$ <i>ou</i> $A = \frac{1}{2}bh$
<p>Trapèze</p> 	$P = a + b + c + d$	$A = \frac{(a + b)h}{2}$ <i>ou</i> $A = \frac{1}{2}(a + b)h$
<p>Cercle</p> 	$C = \pi d$ <i>ou</i> $C = 2\pi r$	$A = \pi r^2$

Figure géométrique	Aire	Volume
Cylindre 	$A_{\text{base}} = \pi r^2$ $A_{\text{surface latérale}} = 2\pi r h$ $A_{\text{totale}} = 2A_{\text{base}} + A_{\text{surface latérale}}$ $= 2\pi r^2 + 2\pi r h$	$V = A_{\text{base}} \times \text{hauteur}$ $V = \pi r^2 h$
Sphère 	$A = 4\pi r^2$	$V = \frac{4\pi r^3}{3}$ ou $V = \frac{4}{3} \pi r^3$
Cône 	$A_{\text{surface latérale}} = \pi r s$ $A_{\text{base}} = \pi r^2$ $A_{\text{totale}} = A_{\text{surface latérale}} + A_{\text{base}}$ $= \pi r s + \pi r^2$	$V = \frac{A_{\text{base}} \times \text{hauteur}}{3}$ $V = \frac{\pi r^2 h}{3}$ ou $V = \frac{1}{3} \pi r^2 h$
Pyramide à base carrée 	$A_{\text{triangle}} = \frac{bl}{2}$ $A_{\text{base}} = b^2$ $A_{\text{totale}} = 4A_{\text{triangle}} + A_{\text{base}}$ $= 2bl + b^2$	$V = \frac{A_{\text{base}} \times \text{hauteur}}{3}$ $V = \frac{b^2 h}{3}$ ou $V = \frac{1}{3} b^2 h$
Prisme droit à base rectangulaire 	$A = 2(Lh + lL + hl)$	$V = A_{\text{base}} \times \text{hauteur}$ $V = Ll h$
Prisme à base triangulaire 	$A_{\text{base}} = \frac{bl}{2}$ $A_{\text{rectangles}} = ah + bh + ch$ $A_{\text{totale}} = 2A_{\text{base}} + A_{\text{rectangles}}$ $= bl + ah + bh + ch$	$V = A_{\text{base}} \times \text{hauteur}$ $V = \frac{1}{2} bl h$ ou $V = \frac{bl h}{2}$