

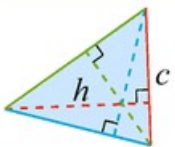
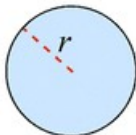
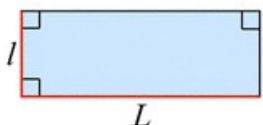
I) Aide pour les conversions

Tableau de conversion	<b>m<sup>3</sup></b>			<b>dm<sup>3</sup></b>			<b>cm<sup>3</sup></b>			<b>mm<sup>3</sup></b>		
			kL	hL	daL	L	dL	cL	mL			

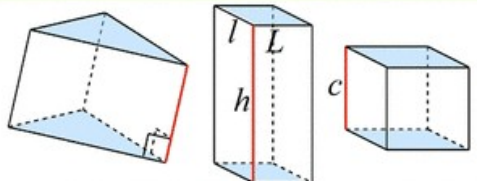
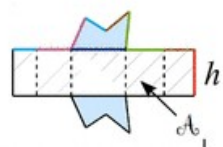
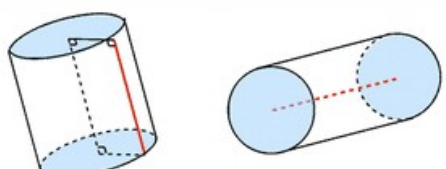
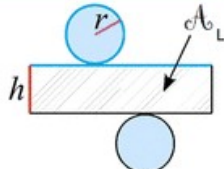
**A retenir :**  $1L = 1dm^3$

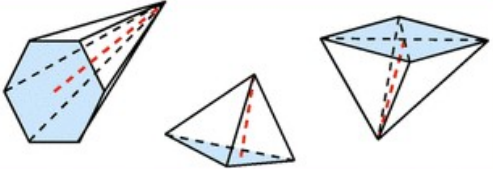
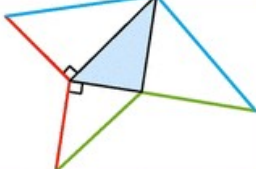
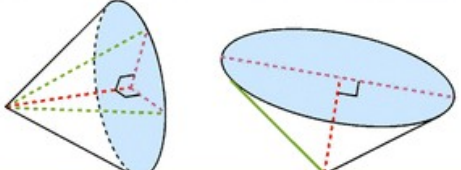
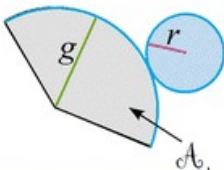
Exemples	$1\text{ cm}^3 = 1\text{ mL}$	$5,2\text{ dm}^3 = 5\,200\text{ cm}^3 = 5\,200\,000\text{ mm}^3$	$5\text{ cL} = 0,05\text{ dm}^3$
	$25\text{ m}^3 = 25\,000\text{ L}$	$75\text{ cL} = 750\text{ cm}^3$	

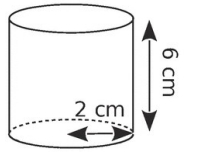
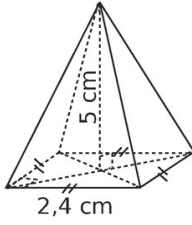
II) Aires de figures usuelles

Triangle		$A = \frac{c \times h}{2}$	Disque		$A = \pi \times r \times r = \pi r^2$ $P = 2 \times \pi \times r = 2\pi r$
Rectangle		$A = L \times l$ $P = 2L + 2l$ ou $P = 2(L + l)$			

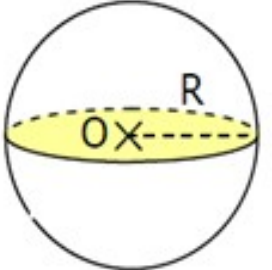
III) Volumes de solides usuelles

	Solide en perspective	Patron	Formules
Prisme droit			$V = \text{Aire base} \times h$ $V_{\text{cube}} = c \times c \times c = c^3$ $V_{\text{pavé droit}} = L \times l \times h$
Cylindre de révolution			$V = \pi r^2 \times h$

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

<b>Exemples</b>	$V_{\text{cylindre}} = \pi \times r^2 \times h$ $V = \pi \times 2^2 \times 6$ $V = 24 \pi \approx 75,4 \text{ cm}^3$		$V_{\text{pyramide}} = \frac{A_{\text{base}} \times h}{3}$ $V = \frac{2,4 \times 2,4 \times 5}{3} = 9,6 \text{ cm}^3$ 
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#### IV) La sphère et la boule

<p><b>Définition</b></p> 	<p><b>La sphère</b> de centre <math>O</math> et de rayon <math>R</math> est l'ensemble de tous les points de l'espace qui <u>sont à la distance <math>R</math> du point <math>O</math></u>.</p> <p><b>La boule</b> de centre <math>O</math> et de rayon <math>R</math> est le solide délimité par la sphère de centre <math>O</math> et de rayon <math>R</math> (c'est-à-dire tous les points qui <u>sont à une distance inférieure ou égale à <math>R</math> par rapport au point <math>O</math></u>).</p>
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<b>Propriété</b>	$V_{\text{boule}} = \frac{4 \times \pi \times r^3}{3}$
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<b>Exemple</b>	<p>Calculer le volume d'une boule de rayon 5 cm en cL</p> $V_{\text{boule}} = \frac{4 \times \pi \times r^3}{3} = \frac{4 \times \pi \times 5^3}{3} \approx 523,6 \text{ cm}^3 \approx 52,36 \text{ cL}$
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