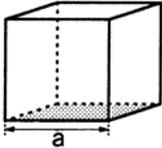
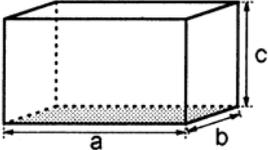
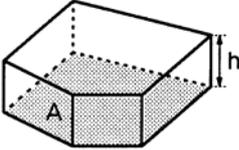
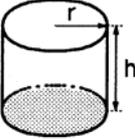
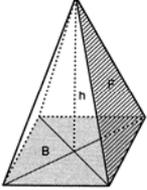
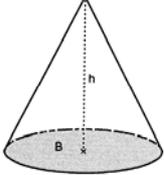
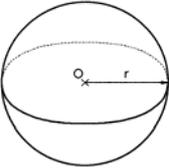


SERIE 42 – Géométrie

Les volumes

calculatrice autorisée

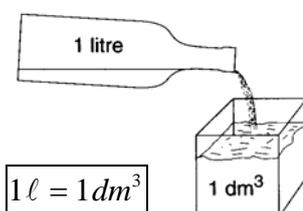
Corps :	Nom du corps :	VOLUME :
	Cube	$V = a^3$
	Parallélépipède rectangle	$V = a \cdot b \cdot c$
	Prisme droit	$V = A \cdot h$
	Cylindre	$V = S_O \cdot h = \pi \cdot r^2 \cdot h$
	Pyramide régulière	$V = \frac{S_B \cdot h}{3}$
	Cône droit	$V = \frac{S_B \cdot h}{3} = \frac{\pi \cdot r^2 \cdot h}{3}$
	Sphère	$V = \frac{4}{3} \cdot \pi \cdot r^3$

**Unités de volume :**

km <sup>3</sup>	hm <sup>3</sup>	dam <sup>3</sup>	m <sup>3</sup>	dm <sup>3</sup>	cm <sup>3</sup>	mm <sup>3</sup>
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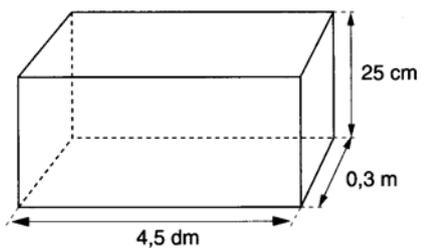
**Unités de capacité :**

	h l	da l	l	d l	c l	m l
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**Exercice 1 :**

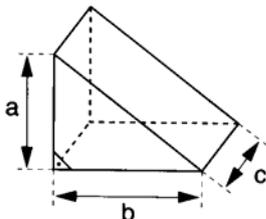
Calculer le volume de ce parallélépipède rectangle en  $\text{cm}^3$



**Exercice 2 :**

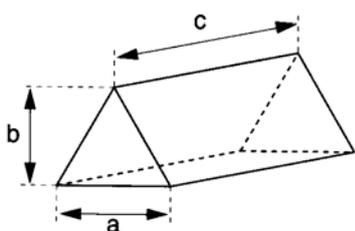
Calculer le volume chacun de ces prismes droits après en avoir colorié une base.

1)



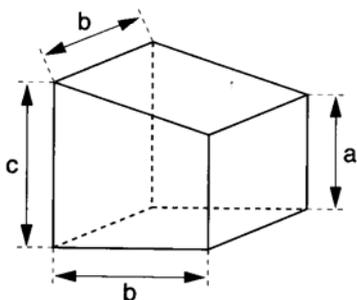
$a = 36 \text{ mm}$   
 $b = 58 \text{ mm}$   
 $c = 12 \text{ mm}$

2)



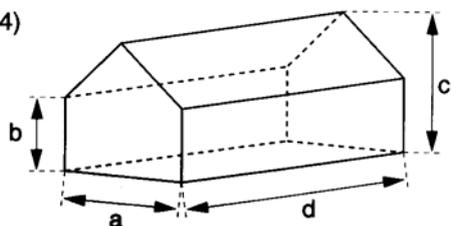
$a = 30 \text{ mm}$   
 $b = 18 \text{ mm}$   
 $c = 72 \text{ mm}$

3)



$a = 13 \text{ cm}$   
 $b = 12 \text{ cm}$   
 $c = 20 \text{ cm}$

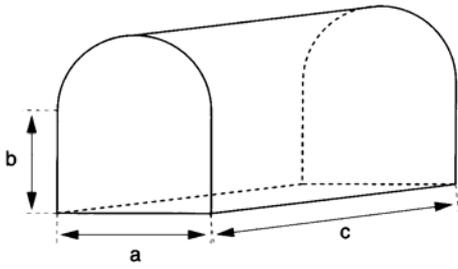
4)



$a = 3 \text{ dm}$   
 $b = 2 \text{ dm}$   
 $c = 5 \text{ dm}$   
 $d = 1 \text{ m}$

**Exercice 3 :**

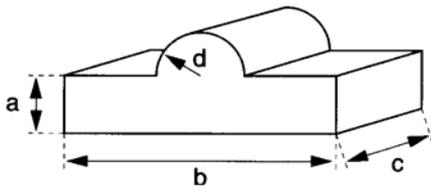
Calculer le volume de ce tunnel.  $a = 4 \text{ m}$   $b = 5 \text{ m}$   $c = 12 \text{ km}$



**Exercice 4 :**

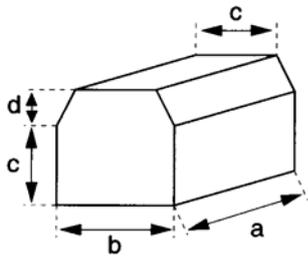
Calculer le volume de ces corps.

1)



- a = 4 cm
- b = 15 cm
- c = 8 cm
- d = 5 cm

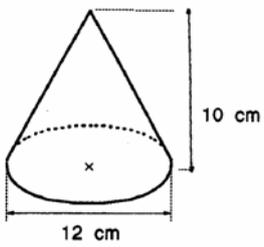
2)



- a = 9 cm
- b = 5 cm
- c = 3 cm
- d = 2 cm

**Exercice 5 :**

Calculer le volume de ce cône.



**Solutions :**

Ex 1 :

$$V = 33750 \text{ cm}^3$$

Ex 2 :

1)  $12'528 \text{ mm}^3$  ; 2)  $19'440 \text{ mm}^3$  ; 3)  $2'376 \text{ cm}^3$  ; 4)  $105 \text{ dm}^3$

Ex 3 :

$$315'360 \text{ m}^3$$

Ex 4 :

1)  $794 \text{ cm}^3$  ; 2)  $207 \text{ cm}^3$

Ex 5 :

$$376,8 \text{ cm}^3$$