

**CORRIGE – M. QUET**

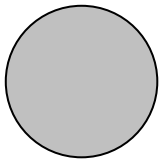
**EXERCICE 1**

Calculer le périmètre et l'aire des disques suivants (« R » est le rayon, « d » est le diamètre) :

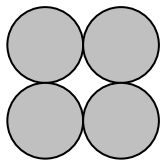
	R	d	Périmètre $P = 2 \pi R$	Aire $A = \pi R^2$
1.	3 cm	6 cm	$6 \pi \approx 18,85$	$\pi \times 3^2 \approx 28,3$
2.	10 cm	20 cm	$20 \pi \approx 62,8$	$\pi \times 10^2 \approx 314$
3.	2,5 cm	5 cm	$5 \pi \approx 15,7$	$\pi \times 2,5^2 \approx 19,6$
4.	2 m	4 m	$4 \pi \approx 12,6$	$\pi \times 2^2 \approx 12,6$
5.	1,5 km	3 km	$3 \pi \approx 9,4$	$\pi \times 1,5^2 \approx 7,1$

**EXERCICE 2**

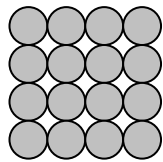
Quelle est la figure ayant l'aire la plus grande ?



$A = \pi \times 1^2 \approx 3,14 \text{ cm}^2$

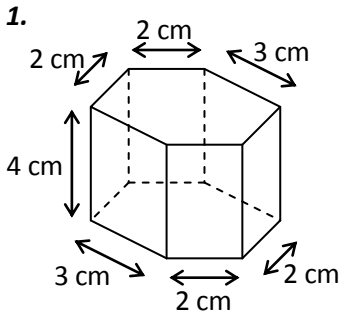


$A = 4 \times (\pi \times 0,5^2) \approx 3,14 \text{ cm}^2$

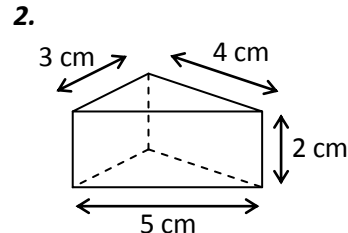


$A = 16 \times (\pi \times 0,25^2) \approx 3,14 \text{ cm}^2$

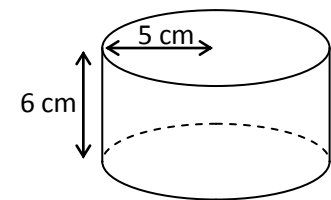
**EXERCICE 3 :** Calculer l'aire latérale de ces solides :



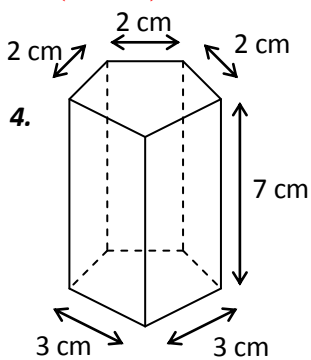
$A = 4 \times (2+2+3+3+2+2) = 28 \text{ cm}^2$



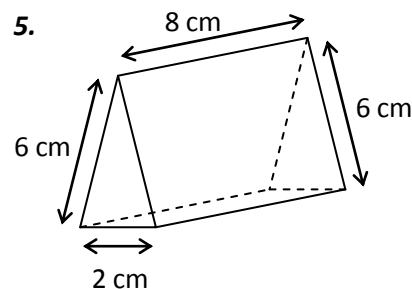
$A = 2 \times (3+4+5) = 24 \text{ cm}^2$



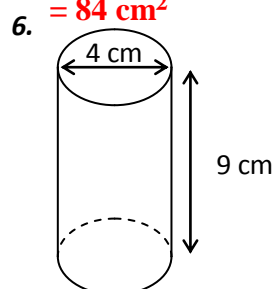
$A = 2 \times \pi \times 5 \times 6 \approx 188,5 \text{ cm}^2$



$A = 7 \times (2+2+2+3+3) = 84 \text{ cm}^2$

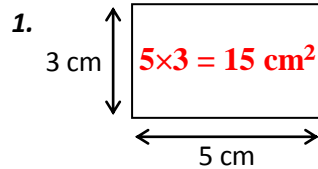


$A = 8 \times (6+6+2) = 112 \text{ cm}^2$

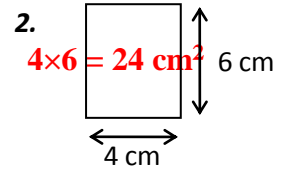


$A = \pi \times 4 \times 9 \approx 113,1 \text{ cm}^2$

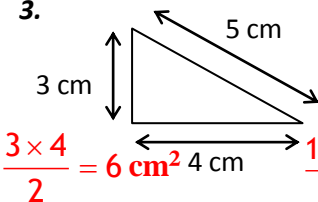
**EXERCICE 4 :** Calculer l'aire des figures suivantes :



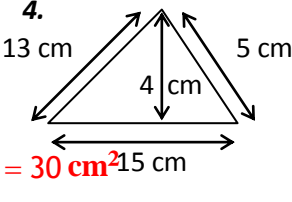
$5 \times 3 = 15 \text{ cm}^2$



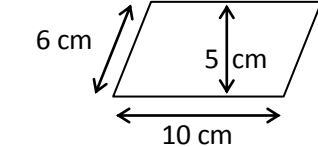
$4 \times 6 = 24 \text{ cm}^2$



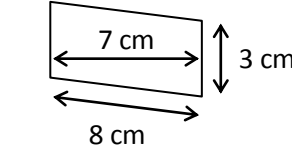
$\frac{3 \times 4}{2} = 6 \text{ cm}^2$



$\frac{15 \times 4}{2} = 30 \text{ cm}^2$

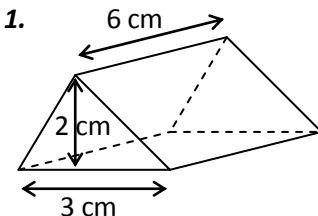


$10 \times 5 = 50 \text{ cm}^2$

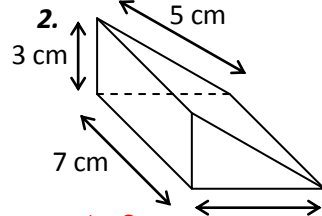


$3 \times 7 = 21 \text{ cm}^2$

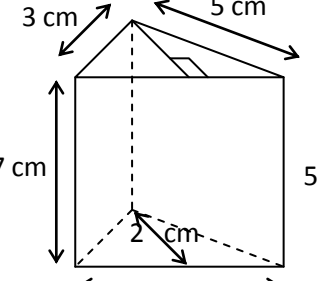
**EXERCICE 5 :** Calculer le volume de ces solides :



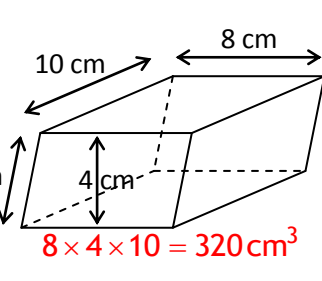
$\frac{3 \times 2}{2} \times 6 = 18 \text{ cm}^3$



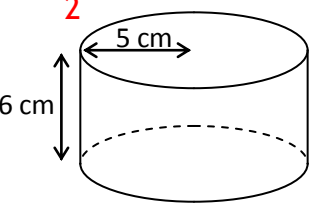
$\frac{4 \times 3}{2} \times 7 = 42 \text{ cm}^3$



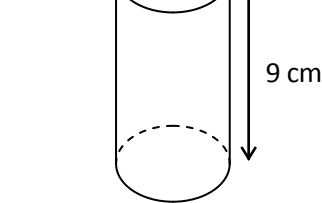
$\frac{7 \times 2}{2} \times 7 = 49 \text{ cm}^3$



$8 \times 4 \times 10 = 320 \text{ cm}^3$



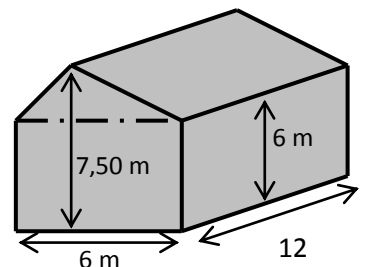
$\pi \times 5^2 \times 6 \approx 471,2 \text{ cm}^3$



$\pi \times 2^2 \times 9 \approx 113,1 \text{ cm}^3$

**EXERCICE 6**

Calculer le volume de cette maison :



**Volume du pavé droit + volume du prisme :**  
 $6 \times 12 \times 6 + 6 \times 12 \times (7,50 - 6) = 432 + 108 = 540 \text{ cm}^3$