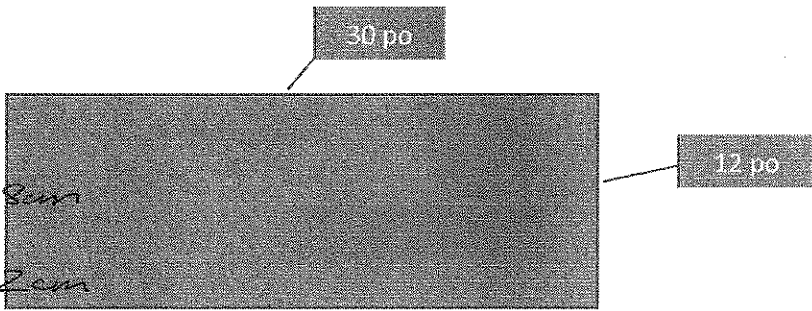


Exercices – périmètre et aire, conversions métriques / impériales

Calcule le périmètre et l'aire des figures suivantes en valeurs métriques et impériales

a)

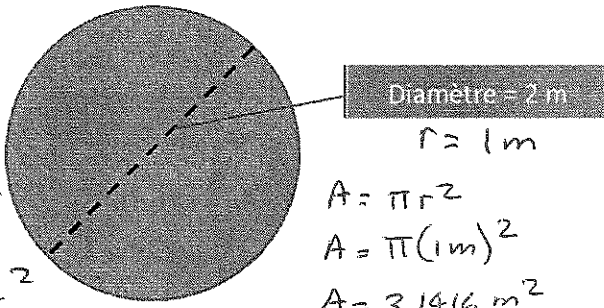


$12 \text{ po} \times 2,54 \frac{\text{cm}}{\text{po}} = 30,48 \text{ cm}$
 $30 \text{ po} \times 2,54 \frac{\text{cm}}{\text{po}} = 76,2 \text{ cm}$

$A = 12 \text{ po} \times 30 \text{ po} = 360 \text{ po}^2$
 $A = 30,48 \text{ cm} \times 76,2 \text{ cm} = 2322,6 \text{ cm}^2$

$P = 2 \times 30 \text{ po} + 2 \times 12 \text{ po} = 84 \text{ po}$
 $84 \text{ po} \times 2,54 \frac{\text{cm}}{\text{po}} = 213,4 \text{ cm}$

b)

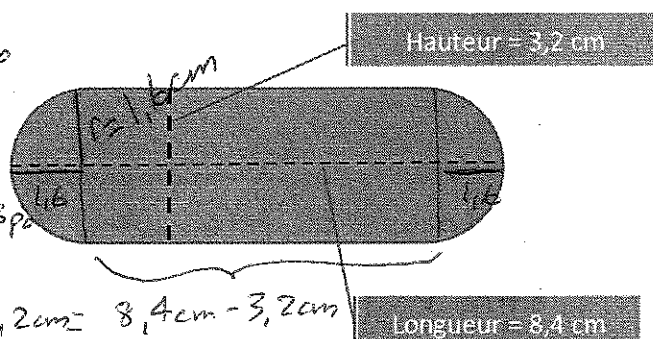


$r = 1,0936 \text{ Vg}$
 $A = \pi r^2$
 $A = \pi (1,0936 \text{ Vg})^2$
 $A = 3,7572 \text{ Vg}^2$

Diamètre = 2 m
 $r = 1 \text{ m}$
 $A = \pi r^2$
 $A = \pi (1 \text{ m})^2$
 $A = 3,1416 \text{ m}^2$

$P = 2\pi r$
 $P = 2 \cdot \pi \cdot 1 \text{ m} = 6,2832 \text{ m}$
 $6,2832 \text{ m} \times 1,0936 \frac{\text{Vg}}{\text{m}} = 6,87 \text{ Vg}$

c)

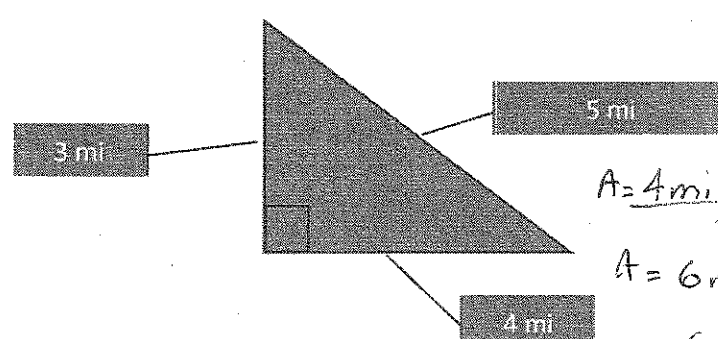


$2,047 \text{ po}$
 $1,26 \text{ po}$
 $A = 5,2 \text{ cm} \cdot 3,2 \text{ cm} + \pi (1,6 \text{ cm})^2$
 $A = 24,682 \text{ cm}^2$
 $A = 3,826 \text{ po}^2$

Hauteur = 3,2 cm
 Longueur = 8,4 cm
 $5,2 \text{ cm} = 8,4 \text{ cm} - 3,2 \text{ cm}$

$P = 2 \times 5,2 \text{ cm} + 2\pi (1,6 \text{ cm})$
 $P = 10,4 \text{ cm} + 10,053$
 $P = 20,453 \text{ cm}$
 $\frac{20,453 \text{ cm} \cdot \text{po}}{2,54 \text{ cm}} = 8,05 \text{ po}$

d)



$A = \frac{4 \text{ mi} \cdot 3 \text{ mi}}{2} = 6 \text{ mi}^2$
 $6 \text{ mi}^2 \times 2,59 \frac{\text{km}^2}{\text{mi}^2} = 15,54 \text{ km}^2$

$P = 3 \text{ mi} + 4 \text{ mi} + 5 \text{ mi} = 12 \text{ mi}$
 $12 \text{ mi} \times 1,6093 \frac{\text{km}}{\text{mi}} = 19,312 \text{ km}$

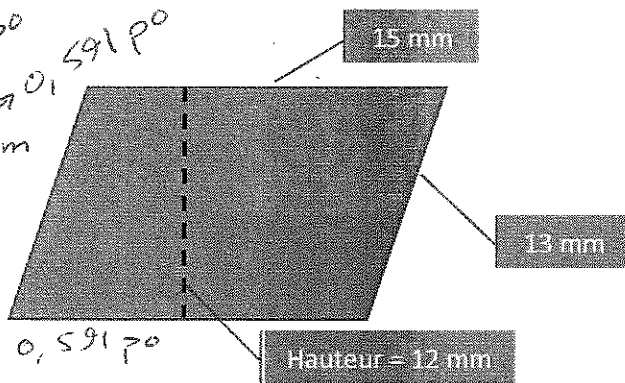
e)

$$A = 12 \text{ mm} \cdot 15 \text{ mm}$$

$$A = 180 \text{ mm}^2$$
~~$$A = 180 \text{ mm}^2$$~~

$$A = 0,4728 \text{ po} \times 0,591 \text{ po}$$

$$A = 0,279 \text{ po}^2$$



$$P = 2 \times 15 \text{ mm} + 2 \times 13 \text{ mm}$$

$$P = 56 \text{ mm}$$

$$P = 56 \text{ mm} \times 0,0394 \frac{\text{po}}{\text{mm}}$$

$$P = 2,21 \text{ po}$$

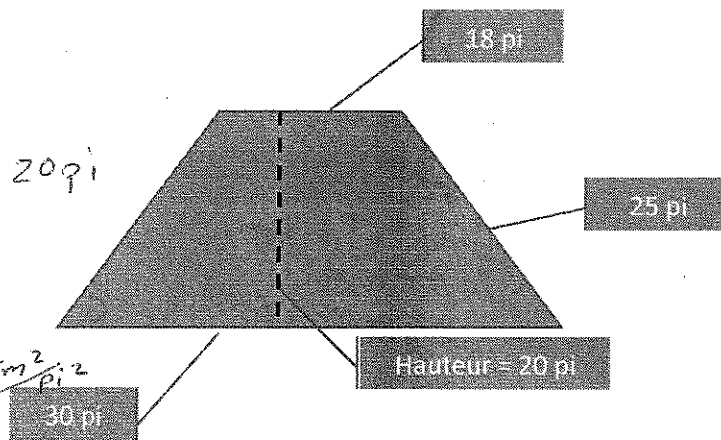
f)

$$A = \frac{(18\pi + 30\pi) \times 20\pi}{2}$$

$$A = 480\pi^2$$

$$A = 480\pi^2 \times 0,0929 \frac{\text{m}^2}{\pi^2}$$

$$A = 44,592 \text{ m}^2$$



$$P = 2 \times 25\pi + 18\pi + 30\pi$$

$$P = 88\pi$$

$$P = 88\pi \times 0,3048 \frac{\text{m}}{\pi}$$

$$P = 26,8224 \text{ m}$$

	Périmètre		Aire	
	Métrique	Impérial	Métrique	Impérial
a)	213,4 cm	84 po	2322,6 cm ²	360 po ²
b)	6,2832 m	6,8713 v	3,1416 m ²	3,7572 v ²
c)	20,453 cm	8,052 po	24,682 cm ²	3,826 po ²
d)	19,3116 km	12 mi	15,54 km ²	6 mi ²
e)	56 mm	2,2064 po	180 mm ²	0,2794 po ²
f)	26,8224 m	88 pi	480 pi ²	44,592 m ²