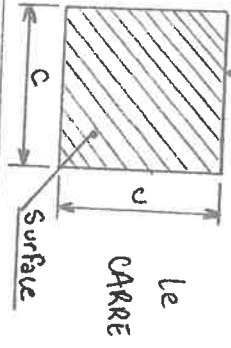


MON FORMULAIRE DE MATHS QUI VA ME SERVIR PENDANT MES ETUDES DE CHAUDRONNERIE

Figures Géométriques



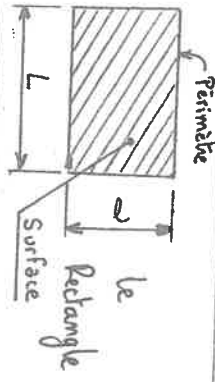
I Périmètre / Circonférence **II Surface**

$$P = c + c + c + c$$

$$P = 4 \times c$$

$$S_{\text{carre}} = c^2$$

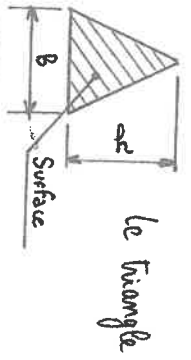
$$= c \times c$$



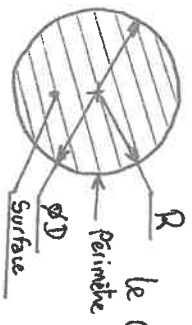
$$P_{\text{rect}} = (L + l) \times 2$$

$$= 2L + 2l$$

$$S_{\text{rect}} = L \times l$$



$$S_{\text{rect}} = \frac{B \times h}{2}$$

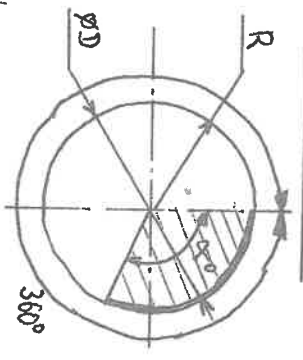


$$P_{\text{cercle}} = 2\pi R$$

$$= \pi D$$

$$S_{\text{cercle}} = \pi R^2$$

$$= \frac{\pi D^2}{4}$$



Longueur arc de cercle:

avec D: $\pi D \leftrightarrow 360^\circ$

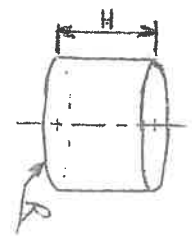
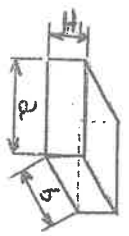
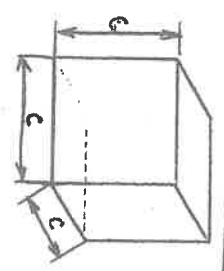
avec R: $2\pi R \leftrightarrow 360^\circ$

Surface

avec D: $\frac{\pi D^2}{4} \leftrightarrow 360^\circ$

avec R: $\pi R^2 \leftrightarrow 360^\circ$

IV Volumes et Surfaces.



Le cube: Volume = $V_{\text{cube}} = c \times c \times c = c^3$

$$S_{\text{cube}} = c \times c \times 6 = c^2 \times 6$$

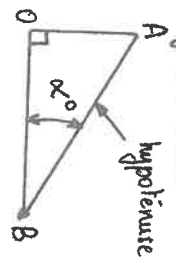
Le parallélépipède: $V_{\text{para}} = a \times b \times H_1$

$$S_{\text{para}} = 2 \times (a \times b) + 2 \times (a \times H_1) + 2 \times (H_1 \times b)$$

Le cylindre: $V_{\text{cylindre}} = B \times H = \pi R^2 \times H$

$$S_{\text{cylindre}} = 2\pi R \times H + \pi D \times H$$

V Trigonométrie



$$\sin \alpha = \frac{\text{côté opposé}}{\text{hypoténuse}} = \frac{AO}{AB}$$

$$\cos \alpha = \frac{\text{côté adjacent}}{\text{hypoténuse}} = \frac{OB}{AB}$$

$$\tan \alpha = \frac{\text{côté opposé}}{\text{côté adjacent}} = \frac{AO}{OB}$$

Pythagore

Principe: $AB^2 = OA^2 + OB^2$

Conclusion: $AB = \sqrt{OA^2 + OB^2}$