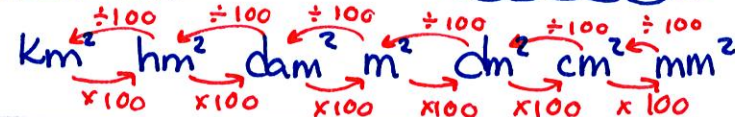
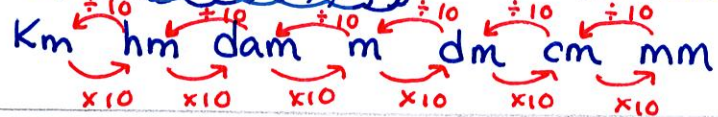


Mesures longueurs  
(périm., c, h, b, B, D, da, ...)

# Chap. 4 : Aire figures planes

Mesures surface  
(aire)

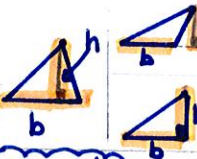
## Conversions



## Calculer AIRE (Superficie / surface)

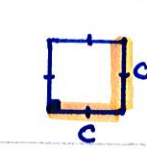
Triangle

$$A = \frac{b \cdot h}{2}$$



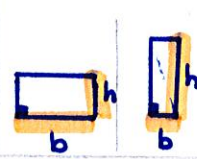
Carré

$$A = c^2 = c \cdot c$$



Rectangle

$$A = b \cdot h$$



Parallélogramme

$$A = b \cdot h$$

\* 2 paires //



Losange

$$A = \frac{D \cdot d}{2}$$

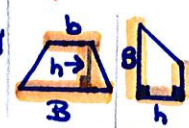
\* 4 côtés égaux



Trapeze

$$A = \frac{(B+b) \cdot h}{2}$$

\* 1 paire de //



Polygones réguliers

\* côtés égaux  
c = mes. côté  
a = apothème  
n = nb côtés



- ① Formule
- ② Remplace
- ③ isole lettre

Trouver mes. (si) AIRE? Ex:  $A = 49 \text{ cm}^2$

Triangle:  $h = 14$   
 $A = \frac{b \cdot h}{2}$   
 $2 \cdot 49 = b \cdot 14$   
 $98 = b \cdot 14$   
 $\frac{98}{14} = \frac{b \cdot 14}{14}$   
 $7 = b$

Parallélogramme:  $b = 10$   
 $A = b \cdot h$   
 $49 = 10 \cdot h$   
 $49 = (10 + b) \cdot 7$   
 $14 = (10 + b) \cdot 7$   
 $14 = 10 + b$   
 $4 = b$

Losange:  $a = 7$   
 $A = \frac{c \cdot a \cdot n}{2}$   
 $2 \cdot 49 = c \cdot 7 \cdot 5$   
 $98 = c \cdot 35$   
 $\frac{98}{35} = \frac{c \cdot 35}{35}$   
 $2,8 = c$

Pol. décomposable

- ① Aire □
  - ② Aire ▭ (Trapeze)
  - ③ Aire totale
- $A = A_{\square} + A_{\Delta}$

Aire du contour

- ① Aire □
  - ② Aire Δ
  - ③ Aire //
- $A = A_{\square} = A_{\Delta}$

## Nom des polygones

- n=3 → triangle
- n=4 → quadrilatère
- n=5 → pentagone
- n=6 → hexagone
- n=7 → heptagone
- n=8 → octogone
- n=9 → ennéagone
- n=10 → décagone
- n=11 → hendécagone
- n=12 → dodécagone

h=5, A=?

Calculs algébriques

Si  $A = 10x + 17,5$  et  $b = ?$   
 $h = 5$   
 $A = \frac{b \cdot h}{2}$   
 $10x + 17,5 = \frac{b \cdot 5}{2}$   
 $20x + 35 = b \cdot 5$   
 $4x + 7 = b$

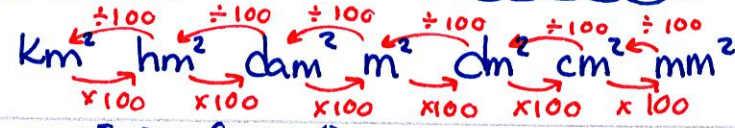
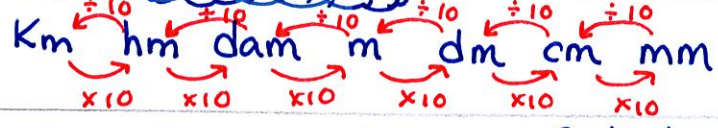


Mesures longueurs  
(périm., c, h, b, B, D, da, ...)

# Chap. 4 : Aire figures planes

Mesures surface  
(aire)

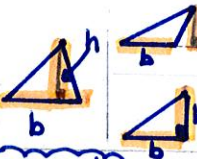
## Conversions



## Calculer AIRE (Superficie / Surface)

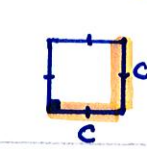
Triangle

$$A = \frac{b \cdot h}{2}$$



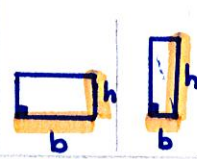
Carré

$$A = c^2 = c \cdot c$$



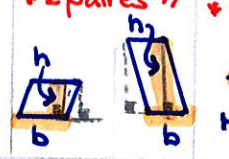
Rectangle

$$A = b \cdot h$$



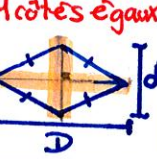
Parallélogramme

$$A = b \cdot h$$



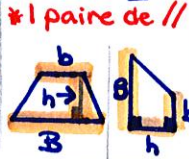
Losange

$$A = \frac{D \cdot d}{2}$$



Trapeze

$$A = \frac{(B+b) \cdot h}{2}$$



Polygones réguliers

\* cotes égaux  
c = mes. côté  
a = apothème  
n = nb cotes



- ① Formule
- ② Remplace
- ③ isole lettre

### Trouver mes. (si) AIRE

Ex:  $A = 49 \text{ cm}^2$

① Formule:  $A = c^2$

② Remplace:  $49 = c^2$

③ isole lettre:  $c = \sqrt{49} = 7$

Triangle:  $A = \frac{b \cdot h}{2}$

h = 14, A = 49

$$49 = \frac{b \cdot 14}{2}$$

$$98 = b \cdot 14$$

$$b = \frac{98}{14} = 7$$

Parallélogramme:  $A = b \cdot h$

b = 10, A = 49

$$49 = 10 \cdot h$$

$$h = \frac{49}{10} = 4.9$$

Losange:  $A = \frac{c \cdot a \cdot n}{2}$

a = 7, n = 5, A = 49

$$49 = \frac{c \cdot 7 \cdot 5}{2}$$

$$98 = c \cdot 35$$

$$c = \frac{98}{35} = 2.8$$

### Nom des polygones

- n=3 → triangle
- n=4 → quadrilatère
- n=5 → pentagone
- n=6 → hexagone
- n=7 → heptagone
- n=8 → octogone
- n=9 → ennéagone
- n=10 → décagone
- n=11 → hendécagone
- n=12 → dodécagone

### Pol. décomposable

① Aire rectangle

② Aire triangle (trapeze)

③ Aire totale

$$A = A_{\square} + A_{\triangle}$$

### Aire du contour

① Aire rectangle

② Aire triangle

③ Aire contour

$$A = A_{\square} + A_{\triangle}$$

### Calculs algébriques

Triangle:  $A = \frac{b \cdot h}{2}$

h = 5, b = 4x + 7

$$A = \frac{(4x+7) \cdot 5}{2} = \frac{20x+35}{2}$$

Si  $A = 10x + 17.5$ , h = 5

$$10x + 17.5 = \frac{b \cdot 5}{2}$$

$$20x + 35 = b \cdot 5$$

$$4x + 7 = b$$