

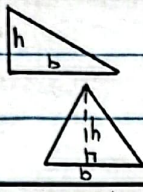

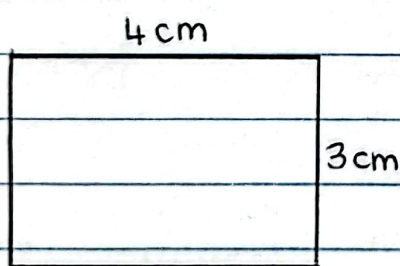


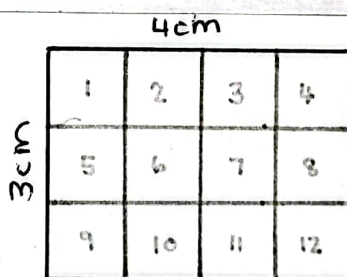
## Gr 8 Wiskunde / Mathematics

Omtrek en Oppervlakte / Perimeter and Area (2)

	Omtrek Perimeter	Oppervlakte Area	Volume
	$2(l+b)$	$l \times b$	$l \times b \times H$
	$2(l+w)$	$l \times w$	$l \times w \times H$
	+	$\frac{1}{2} \times b \times h$	$\frac{1}{2} \times b \times h \times H$
	Circumference $2\pi r$	$\pi r^2$	$\pi r^2 \times H$

1. Wat is oppervlakte?What is area?

$$\begin{aligned} \text{Opp} &= l \times b & \text{Area} &= l \times w \\ &= 4 \times 3 & &= 4 \times 3 \\ &= 12 \text{ cm}^2 \end{aligned}$$



4 cm ✓

3 cm ✓

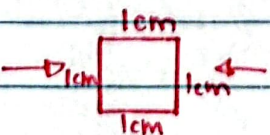
- Teken 1 cm blokkies
- Draw 1 cm blocks

Opp = hoeveel 1 cm grootte blokkies jy in die figuur kan pas

Area = how many 1 cm size blocks can you fit into the shape

$= 12 \text{ cm}^2$

- Gebruik eenhede wat gegee word
- "vierkante cm"
- Daar pas 12 blokkies in.

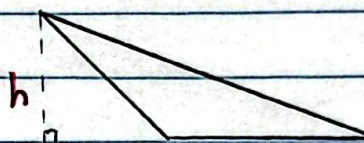
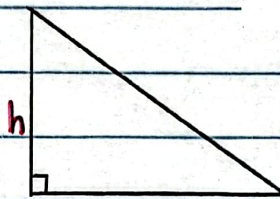
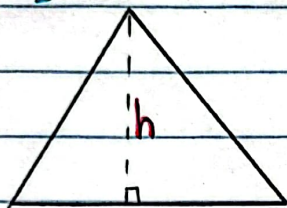
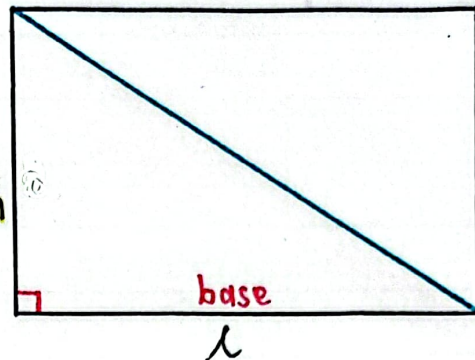


- Use units that are given
- "square cm"
- 12 of these blocks fit into the shape

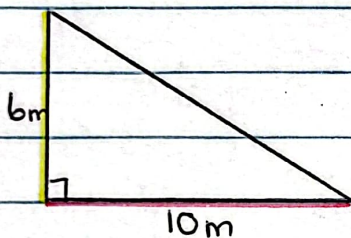


2. Waarom is 'n  $\Delta = \frac{1}{2} \times b \times \perp h$ ?  
Why is a  $\Delta = \frac{1}{2} \times b \times \perp h$ ?

Area =  $l \times w$     Opp =  $l \times b$   
 but  $l = \text{base of } \Delta$  /  $\text{basis van } \Delta$   
 $b = \perp \text{ height}$  /  $\perp \text{ hoogte}$   
 ONLY  $\frac{1}{2} \square$     SLEGS  $\frac{1}{2} \square$



a)

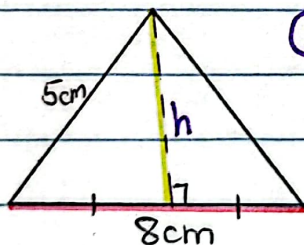


$$A = \frac{1}{2} \times b \times \perp h$$

$$A = \frac{1}{2} \times (10) \times (6)$$

$$A = 30 \text{ m}^2$$

b)



① To find  $\perp h$  : PYTHAGORAS!  
 Om  $\perp h$  te kry:

$$h^2 = 5^2 - 4^2$$

$$h^2 = 25 - 16$$

$$\sqrt{h^2} = \sqrt{9}$$

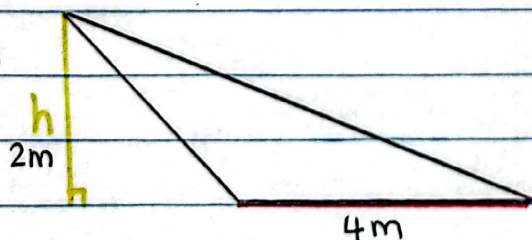
$$h = 3 \text{ cm}$$

$$\therefore A = \frac{1}{2} \times b \times \perp h$$

$$A = \frac{1}{2} \times (8) \times (3)$$

$$A = 12 \text{ cm}^2$$

c)



$$A = \frac{1}{2} \times b \times \perp h$$

$$A = \frac{1}{2} \times (4) \times (2)$$

$$A = 4 \text{ m}^2$$