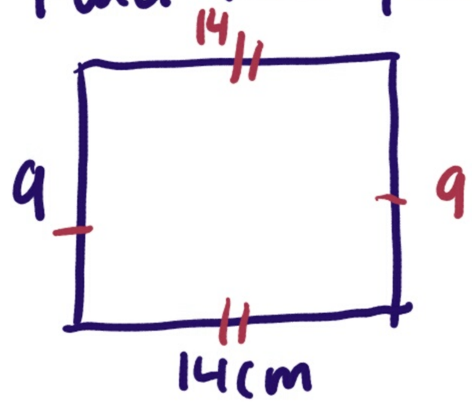
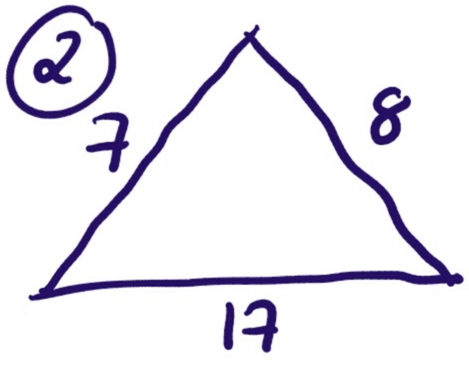
Area, Volume + Perimeter

Perimeter is all the sides of an object added together.

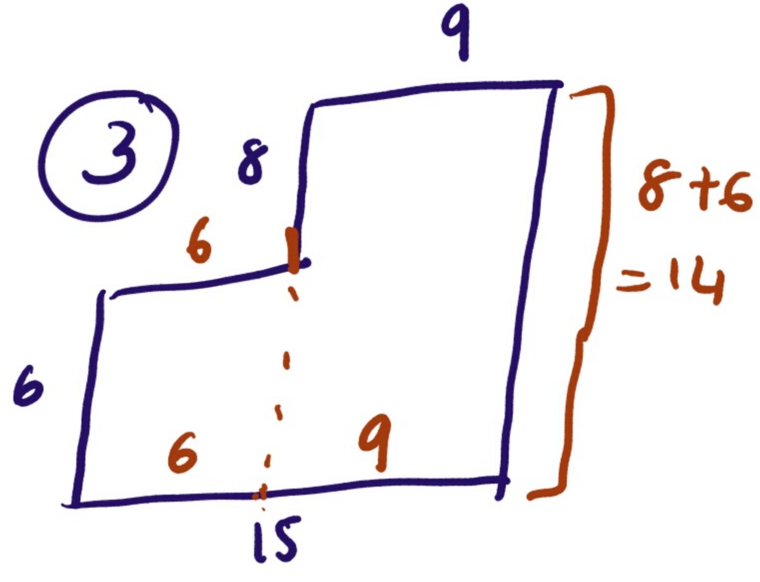
Eqs Find the perimeters

① 

9+9+14+14=46cm

② 

7+8+17
=32cm

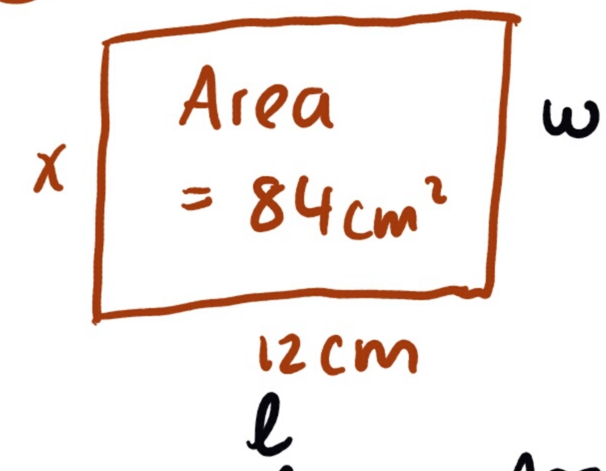
③ 

9+8+6+6+15+14
=58cm

Finding a missing side when given the area

Area = $\ell \times w$

① Re



$\overset{\ell}{w} \times \overset{\ell}{\ell}$ Area

$(x)(12) = 84$

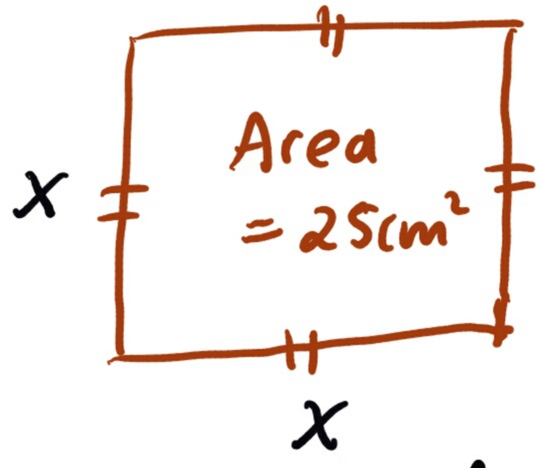
multiply

$\div 12 \mid 12x = 84 \mid \div 12$

$x = 7$

Check $7 \times 12 = 84$ ✓

② Square. Side are all the same.



$\ell \times w = \text{Area}$

x multiply x = 25

$\sqrt{} \mid x^2 = 25 \mid \sqrt{}$

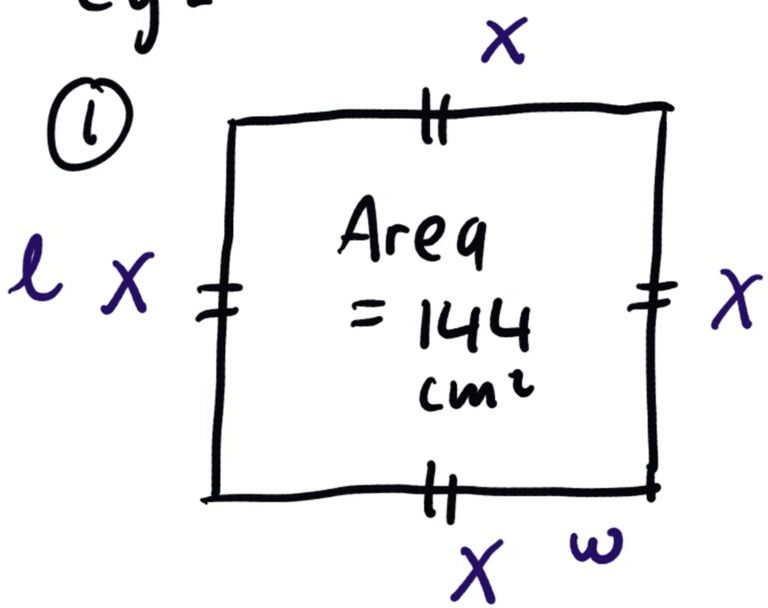
$x = \sqrt{25}$

$x = 5$

Check $5 \times 5 = 25$ ✓

Eg 2 Find the lenght of the side of the given squares when given the area

(1)



Area = $l \times w$

$144 = (x)(x)$

$144 = x^2$

$\sqrt{144} = x$

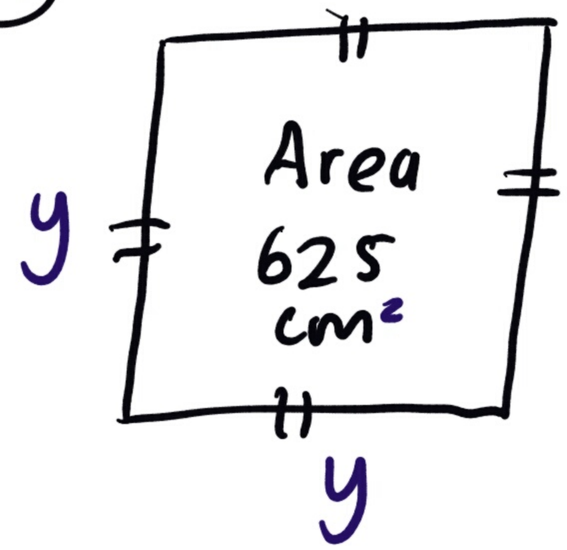
$12 = x$

Check

12×12

$= 144$ ✓

(2)



$(y)(y) = 625$

$y^2 = 625$

$y = \sqrt{625}$

$y = 25$

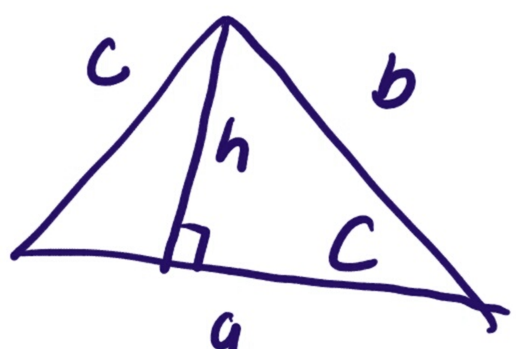
Check

25×25

$= 625$ ✓

Triangles

Area of a triangle Log tables Pg 9



$A = \frac{1}{2} a h$

Pg & A is the area.

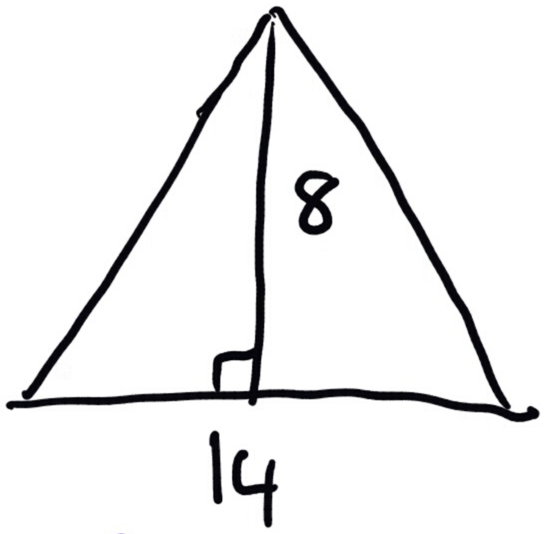
What the letters mean

h = perpendicular height

a = base of the triangle

Area of a triangle is half the base multiplied by the perpendicular height

Find the Area



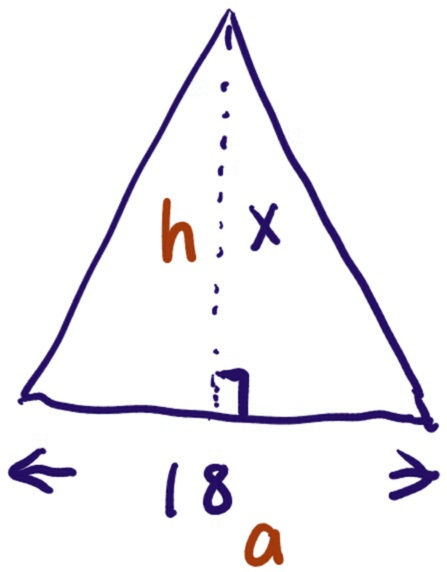
$h = 8$

Base 14

$\frac{1}{2}(14)(8)$

$7 \times 8 = 56$

Find a missing value in a triangle when given the area.



Area = 90cm²

Area = ½ a h

Area.

½ (18)(x) = 90cm²

9x = 90

÷9 | x = 10 | ÷9

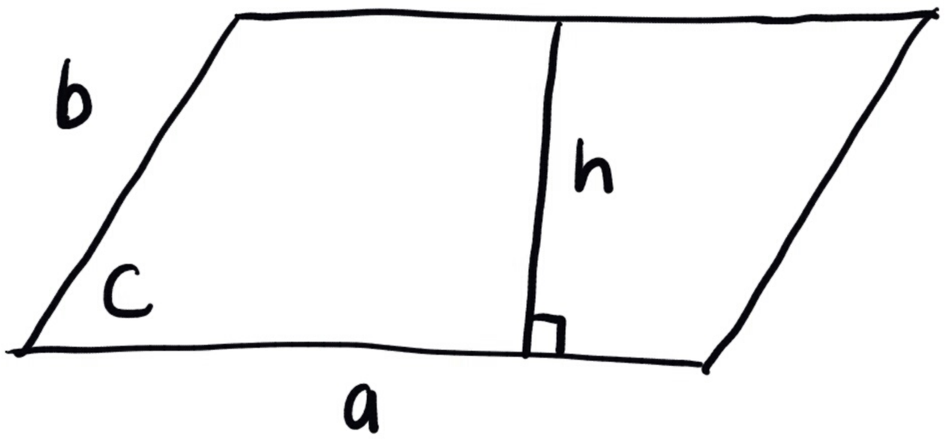
Check

½ (18)(10)

9 x 10 = 90 ✓

Area of a parallelogram

Log Tables Pg 8 A is the area.



$A = ah$

What this means

A = Area

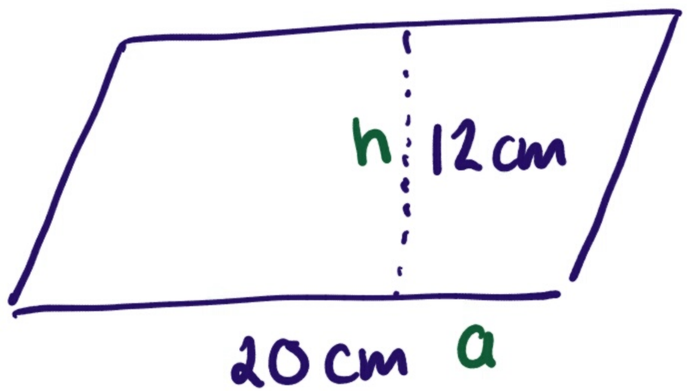
a = base

h = perpendicular height

Right angle 90°

To find the area you multiply the base by the perpendicular height.

Eg1) Find the area



$A = ah$

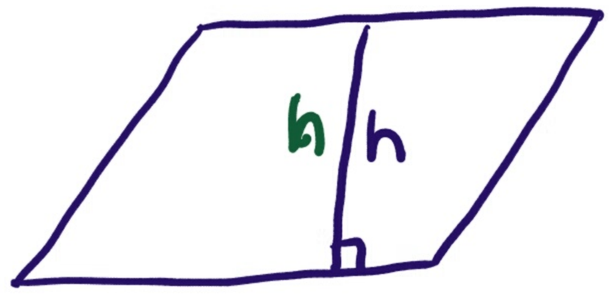
$A = (20)(12)$ multiply

$A = 240cm^2$

Classwork Pg 90

Q 2, 3, 4 + 6

Eg2) Find the missing side when given the area.



$Area = 30cm^2$

$A = ah$

$30 = 5(h)$

$\div 5 \mid 30 = 5h \mid \div 5$

$6 = h$

Check

5×6

$= 30$ ✓