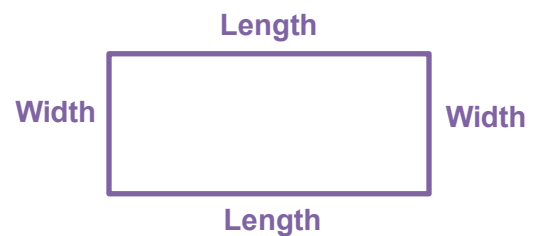


Measurement***What is area?**

Area is a measure of how much space there is on a flat surface.

***What is rectangle?**

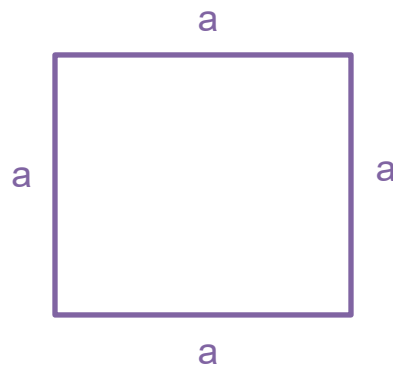
A flat shape with four 90° angles and four sides, with opposite sides of equal length.

**Area of rectangle:**

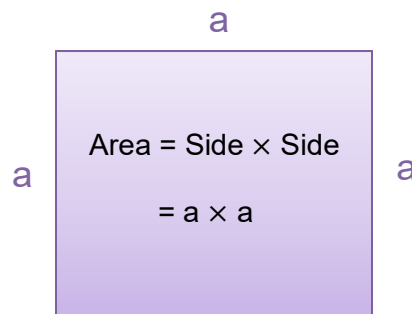
Perimeter of rectangle = $2 \times (\text{Length} + \text{Width})$

*What is square?

A *square* is a shape with four sides that are all the same length.



Area of square:



Perimeter of square = 4 × Side

Formula:

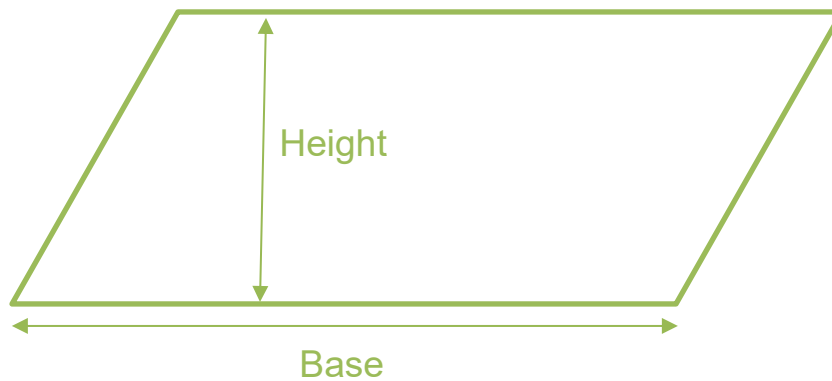
- 1) Area of rectangle = Length × Width
- 2) Length = Area ÷ Width
- 3) Width = Area ÷ Length
- 4) Perimeter of rectangle = 2 × (Length + Width)
- 5) Area of square = Side × Side
- 6) Perimeter of square = 4 × Side
- 7) 1 ayor = 100 m^2
- 8) 1 hectare = 1000 m^2

9) 1 hectare = 100 ayor

10) 1 square km = 100 hectare

What is parallelogram?

A *parallelogram* is a four-sided shape in which each side is parallel to the side opposite.



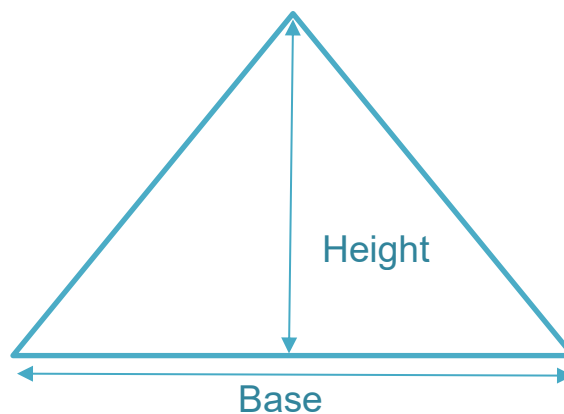
Area of parallelogram = Base \times Height

Base = Area \div Height

Height = Area \div Base

What is triangle?

A triangle is a closed figure with three sides.



Formula:

$$1) \text{ Area of triangle} = \frac{(\text{Base} \times \text{Height})}{2}$$

$$2) \text{ Base} = \frac{(2 \times \text{Area})}{\text{Height}}$$

$$3) \text{ Height} = \frac{(2 \times \text{Area})}{\text{Base}}$$

Creative Question:

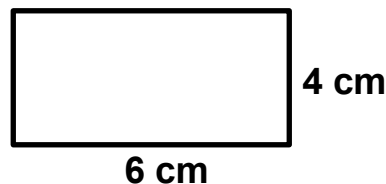
1. The length of one side square region is 41 m.

- What is the area of the square region?
- If the length is 1 m less, what will be the area of the region?
- If the length is extending 1 m and breadth is reducing 1 m, what will be the area of the region?

2. The length of a rectangular field is 90 meters and the area is 3600 sq meters.

- What is the width of the field?
- What will its area be if the length of the field is increased by 2 meters?

3.



- What is the area of above figure?
- Divide the figure into 2 triangle and find out the area of one triangle.
- If extend length 2 cm and breadth 1 cm of the figure, what will be the area.

4. A rectangular region is formed by 2 adjoining and non overlapping triangular regions of the same size the length of the rectangular is 16 m and breadth is 12 m.

- a. What is the area of the rectangular region?
- b. What is the area of the each triangular region?
- c. If the length of the rectangular region is 2 m extended, what will be the area of the region?

5. The width of a rectangular shape is 40 cm and the length is 3 times more than the width.

- a. What is the area of the shape?
- b. If the length is increased by 10 cm, calculate the area of the shape.

6. The length of a rectangular pond is 96 meters, and the width is 60 meters.

- a. What is the area of the pond?
- b. How many meters in width need to be extended to make the pond square?
- c. What will the area be if the length of the pond is lessened 16 meters?

7. The area of a rectangular field is 336 sq meter. The length of the field is 2100cm.

- a. How many meters is the breadth of the field?
- b. If we let the length of this rectangular field as 1 arm of a square, what will be the area?
- c. If the area of the field is not changed and the length is 42 meters, what will be breadth?

