

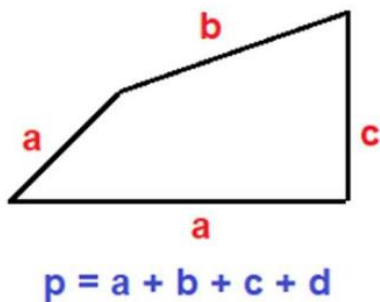
Board –CBSE

Class – 7<sup>th</sup>

Topic – Perimeter and Area

## Perimeter

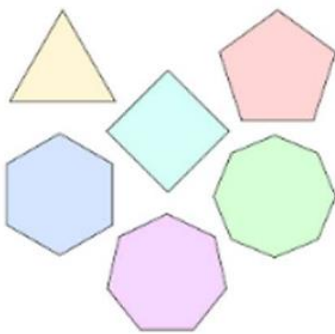
Perimeter is the total length or total distance covered along the boundary of a closed shape.



The perimeter of a Quadrilateral

## Area

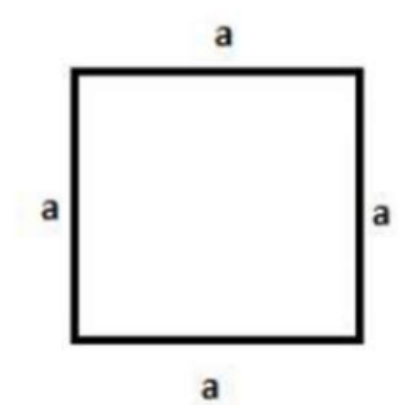
The area is the total amount of surface enclosed by a closed figure.



Areas of a closed figure

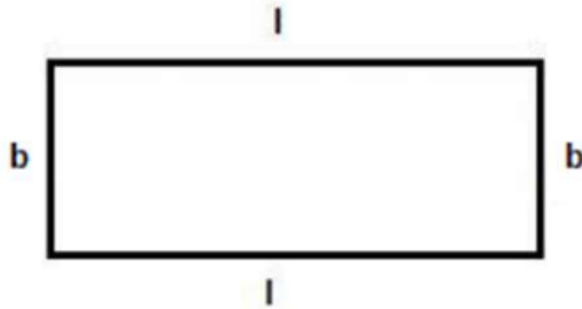
## The perimeter of Square and Rectangle

Perimeter of a square =  $a + a + a + a = 4a$ , where  $a$  is the length of each side.



Square with side length 'a' units

Perimeter of a rectangle =  $l + l + b + b = 2(l + b)$ , where  $l$  and  $b$  are length and breadth, respectively.

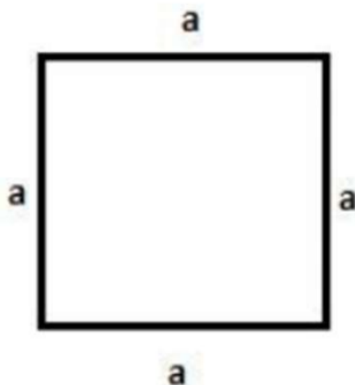


Rectangle with length  $l$  units and breadth 'b' units

**Area of Square & Rectangle**

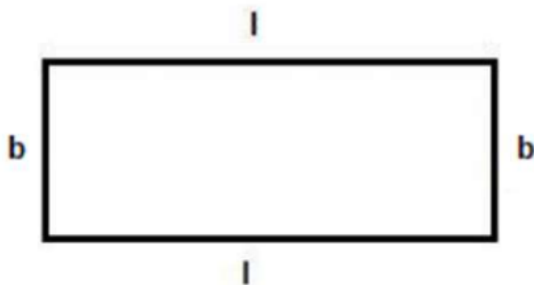
Area of square =  $4a^2$

Here  $a$  is the length of each side



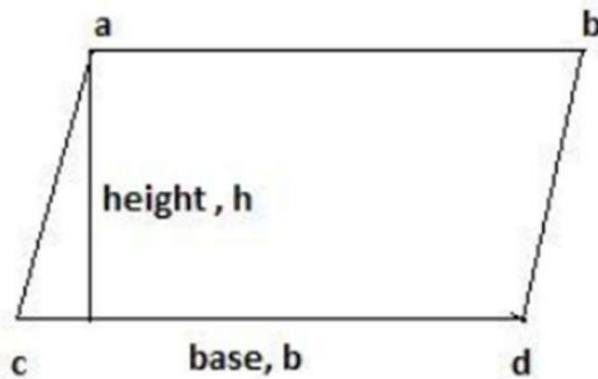
Square with the length of each side 'a' units

Area of rectangle = Length ( $l$ )  $\times$  Breadth ( $b$ ) =  $l \times b$



Rectangle with length 'a' units and breadth 'b' units

## Area of a Parallelogram

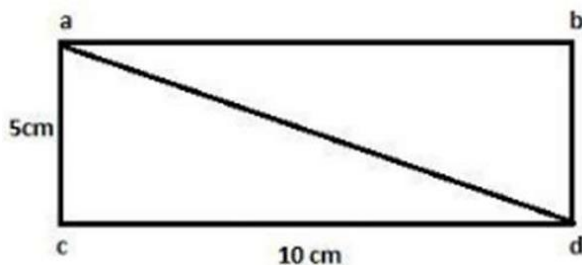


Area of parallelogram ABCD = (base  $\times$  height)

Area of parallelogram ABCD = ( $b \times h$ )

## Triangle as Part of Rectangle

- The rectangle can be considered as a combination of two congruent triangles.
- Consider a rectangle ABCD, it is divided into 2 triangles ACD and ABD.

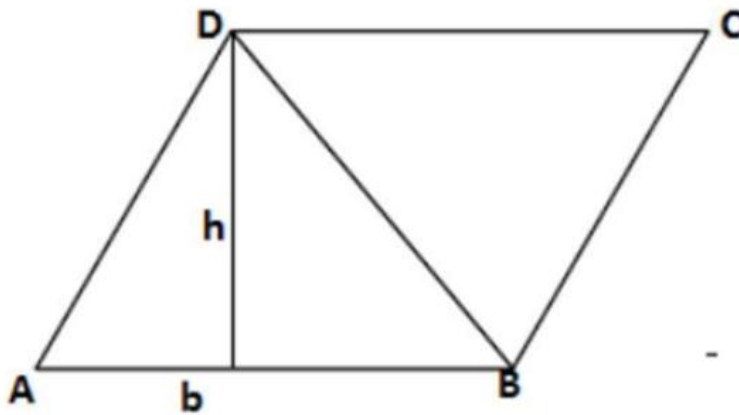


## Triangles as parts of Rectangle

- Area of each triangle = 12 (Area of the rectangle).  
= 12 (length  $\times$  breadth )  
= 12(10 cm  $\times$  5 cm)  
= 25 cm<sup>2</sup>

## Area of a Triangle

- Consider a parallelogram ABCD.
- Draw a diagonal BD to divide the parallelogram into two congruent triangles.



Area of Triangle =  $\frac{1}{2}$  (base  $\times$  height)

- Area of triangle ABD =  $\frac{1}{2}$  (Area of parallelogram ABCD )

Area of triangle ABD =  $\frac{1}{2}(b \times h)$

To know more about Area and Perimeter, visit [here](#).

## Conversion of Units

- Kilometres, metres, centimetres, millimetres are units of length.
- 10 millimetres = 1 centimetre
- 100 centimetres = 1 metre
- 1000 metres = 1 kilometre