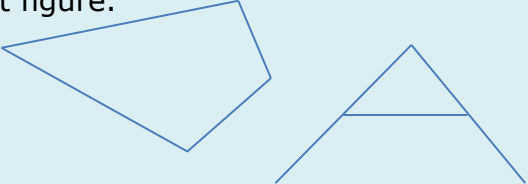





Area of Parallelogram and Triangles

S.no	Terms	Descriptions
1	Area of figure	<p>Area of a figure is a number (in some unit) associated with the part of the plane enclosed by that figure.</p> 
2	Properties of Area	<p>(1) Two congruent figures have same area</p>  <p>2) If two figure have same area, they are not necessary congruent</p>  <p>3) If a planar region formed by a figure T is made up of two non-overlapping planar regions Formed by figures P and Q, then $ar(T) = ar(P) + ar(Q)$, where $ar(X)$ denotes the area of Figure X.</p> 

3 Figure on the same base and between same parallels

Two figures are said to be on the same base and between the same parallels, if they have a common base (side) and the vertices, (or the vertex) opposite to the common base of each figure lies on a line parallel to the base.



In the above figure triangle and parallelogram are on the same base and between same parallel

4 Parallelogram on same base and between same parallel

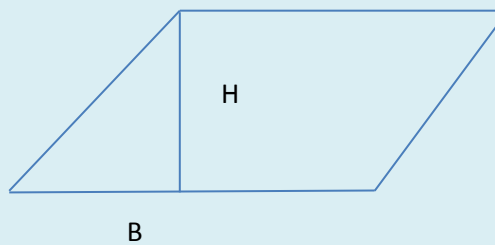


Parallelograms on the same base (or equal bases) and between the same parallels are equal in area.

Area of Parallelogram ABCD = Area of Parallelogram PBCQ

5 Area of Parallelogram

Area of parallelogram is equal base multiplied by Height



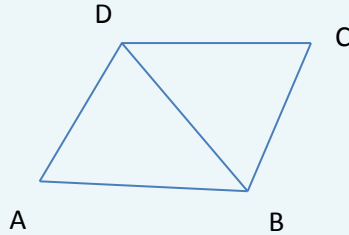
Area of Parallelogram = Height X Base

Parallelograms on the same base (or equal bases) and having equal areas lie between the same parallel

6

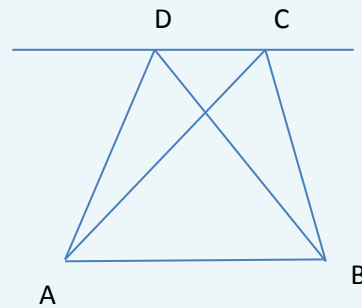
Triangles and Parallelogram

a) If a parallelogram and a triangle are on the same base and between the same parallels, then area of the triangle is half the area of parallelogram



Area of triangle ADB = $\frac{1}{2}$ X Area of parallelogram ABCD

b) Triangles on the same base (or equal bases) and between the same parallels are equal in area



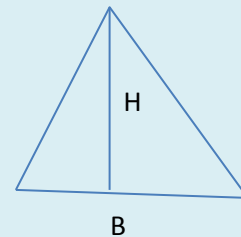
Area of triangle ABD = Area of triangle ACB

7

Area of Triangle

1) Area of triangle is given by

$$A = \frac{1}{2} BH$$



2) Triangles on the same base (or equal bases) and having equal areas lie between the same parallels