

Area Theorems

1. The amount of surface enclosed by the boundary of a plane closed figure is called its area and is measure in squared units.
2. A diagonal of a parallelogram divides it into two congruent triangles i.e. two triangles of equal area.
3. Parallelograms between the same base and between the same parallels are equal in area.
4. A parallelogram and a rectangle on the same base and between the same parallels are equal in area.
5. Parallelograms with equal bases and between the same parallels are equal in area.
6. If a triangle and a parallelogram are on the same base and between the same parallels, then the area of the triangle is equal to half area of the parallelogram.
7. Triangles on the same base and between the same parallels are equal in area.
8. Triangles with equal bases and between the same parallels are equal in area.
9. Triangles with equal areas and lying on the same or equal bases have equal altitudes.