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.