Heron's Formula

1. The region enclosed within a simple closed figure is called its **area**.

2. **Area of a triangle** $= \dfrac{1}{2} \times$ base $\times$ height

3. **Area of an equilateral triangle** $= \dfrac{\sqrt{3}}{4} a^2$ sq units, where 'a' is the side length of an equilateral triangle.

4. **Semi-perimeter** is half of the perimeter.

5. If a, b and c denote the lengths of the sides of a triangle, then the area of the triangle is calculated by using **Heron's formula**, as given below:

    Area of triangle $= \sqrt{s\,(s - a)(s - b)(s - c)}$, $s = $ semi - perimeter $= \dfrac{a + b + c}{2}$

6. For every triangle, the values of $(s - a)$, $(s - b)$, and $(s - c)$ are positive.

7. Area of a quadrilateral can be calculated by dividing the quadrilateral into two triangles and using Heron's formula for calculating area of each triangle.