

Ch-10 Heron's Formula

1. For a triangle with length of sides (a, b and c); perimeter = $a + b + c$.
2. Area of a triangle = $\frac{1}{2} \times \text{base} \times \text{altitude}$.
3. Area of an isosceles triangle with length of two equal sides (a) and base (b) = $\frac{1}{2} \times b \times \sqrt{a^2 - \frac{b^2}{4}}$.
4. Area of an equilateral triangle with side (a) = $\frac{\sqrt{3}}{4} \times a^2$.
5. Altitude of an equilateral triangle with side (a) = $\frac{\sqrt{3}}{2} \times a$.
6. **Heron's formula** – If a, b, c denote the lengths of the sides of a triangle, then area of triangle is represented as –
$$\text{Ar}(\Delta) = \sqrt{s(s-a)(s-b)(s-c)} ;$$

Where $s = \frac{a+b+c}{2}$.