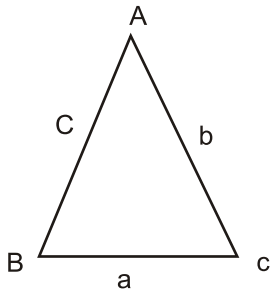
CHAPTER-12
HERON'S FORMULA
MIND MAPPING



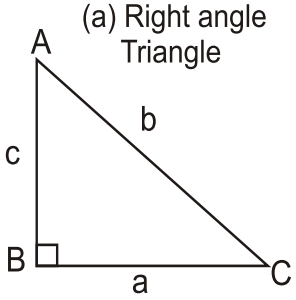
Semi-Perimeter = $\frac{a+b+c}{2}$ =S

Area of Triangle = $\sqrt{S(S-a)\,(S-b)\,(S-c)}$

Heron's Formula

Perimeter and Area of Triangles

(a) Right angle Triangle



$b^2 = a^2 + c^2$

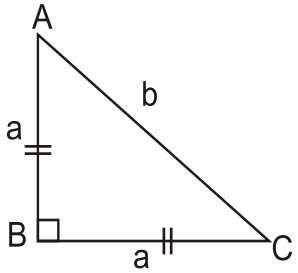
(Pythagorus Thorem)

Perimeter = a+b+c

Area = $\frac{1}{2}$ x a x c

= $\frac{1}{2}$ x base x height

(b) Isosceles Right Triangle



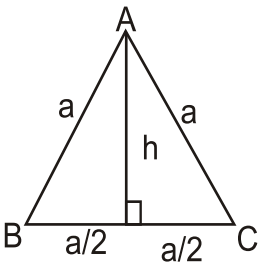
$b^2 = 2a^2$

(Pythagorus Thorem)

Perimeter = 2a+ b

Area = $\frac{1}{2}$ a^2

(c) Equilateral Triangle



Perimeter = 3a

Height = $\frac{\sqrt{3}}{2}$ a

Area= $\frac{1}{2} \times$ a X h

= $\frac{1}{2}$ ax $\frac{\sqrt{3}}{2}$ a

= $\frac{\sqrt{3}}{4}$ a^2

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