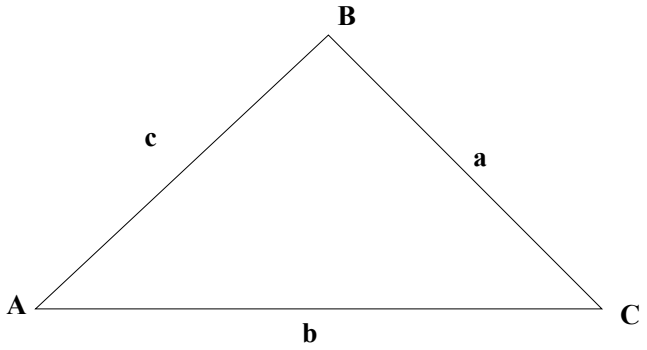
٣. Oblique Triangles



Sine Law -a

$$\frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C}$$

Cosine Law -b

$$a^2 = b^2 + c^2 - 2bc\cos A$$

$$b^2 = a^2 + c^2 - 2ac\cos B$$

$$c^2 = a^2 + b^2 - 2ab\cos C$$

٤. General Trigonometric Formulas

$$\sin A = 2\sin\frac{1}{2}A\cos\frac{1}{2}A = \sqrt{1-\cos^2 A} = \tan A\cos A$$

$$\cos A = 2\cos^2\frac{1}{2}A - 1 = 1 - \sin^2\frac{1}{2}A$$

$$\cos A = \cos^2\frac{1}{2}A - \sin^2\frac{1}{2}A = \sqrt{1-\sin^2 A}$$

$$\tan A = \frac{\sin A}{\cos A} = \frac{\sin 2A}{1+\cos 2A} = \sqrt{\sec^2 A - 1}$$