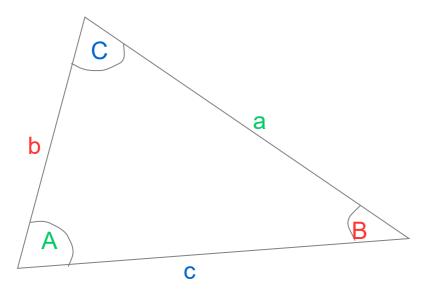
Trig Rules.md 2/21/2023

Trigonometric rules

The following rules work for any triangle, where the sides and angles are labeled as below:



Sine Rule

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

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

Cosine Rule

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

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

Area of any triangle

$$A_{rea} = \frac{1}{2}ab\sin C$$