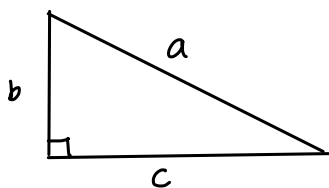


Trigonometry

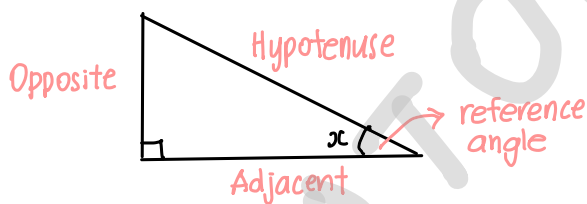
- 1) For **Right-Angled Triangle**, you can apply:
- ↳ Pythagoras' Theorem
 - ↳ TOA CAH SOH

Pythagoras' Theorem



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

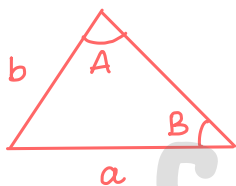
TOA CAH SOH



$$\begin{aligned} \text{TOA} &\rightarrow \tan x = \frac{\text{Opp}}{\text{Adj}} \\ \text{CAH} &\rightarrow \cos x = \frac{\text{Adj}}{\text{Hyp}} \\ \text{SOH} &\rightarrow \sin x = \frac{\text{Opp}}{\text{Hyp}} \end{aligned}$$

- 2) For **Non Right-Angled Triangle**:
- ↳ sine Rule
 - ↳ cosine Rule

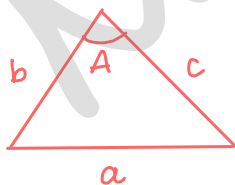
Sine Rule



- If you're finding length: $\frac{a}{\sin A} = \frac{b}{\sin B}$

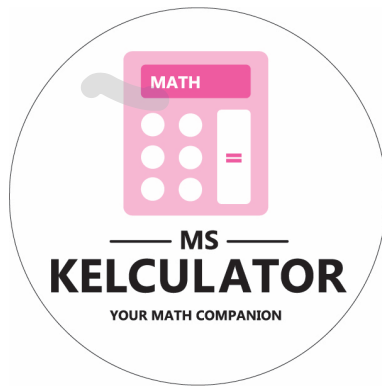
- If you're finding angle: $\frac{\sin A}{a} = \frac{\sin B}{b}$

Cosine Rule



- If you're finding length: $a^2 = b^2 + c^2 - 2bc \cos A$

- If you're finding angle: $\cos A = \frac{a^2 - b^2 - c^2}{-2bc}$ or $\frac{b^2 + c^2 - a^2}{2bc}$



Trigonometry

3) Trigonometry Ratio of Obtuse Angle (y):

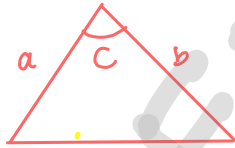


$$\sin y = \sin x$$

$$\cos y = -\cos x$$

$$\tan y = -\tan x$$

4) Area of Triangle :



$$\text{Area} = \frac{1}{2} ab \sin C$$