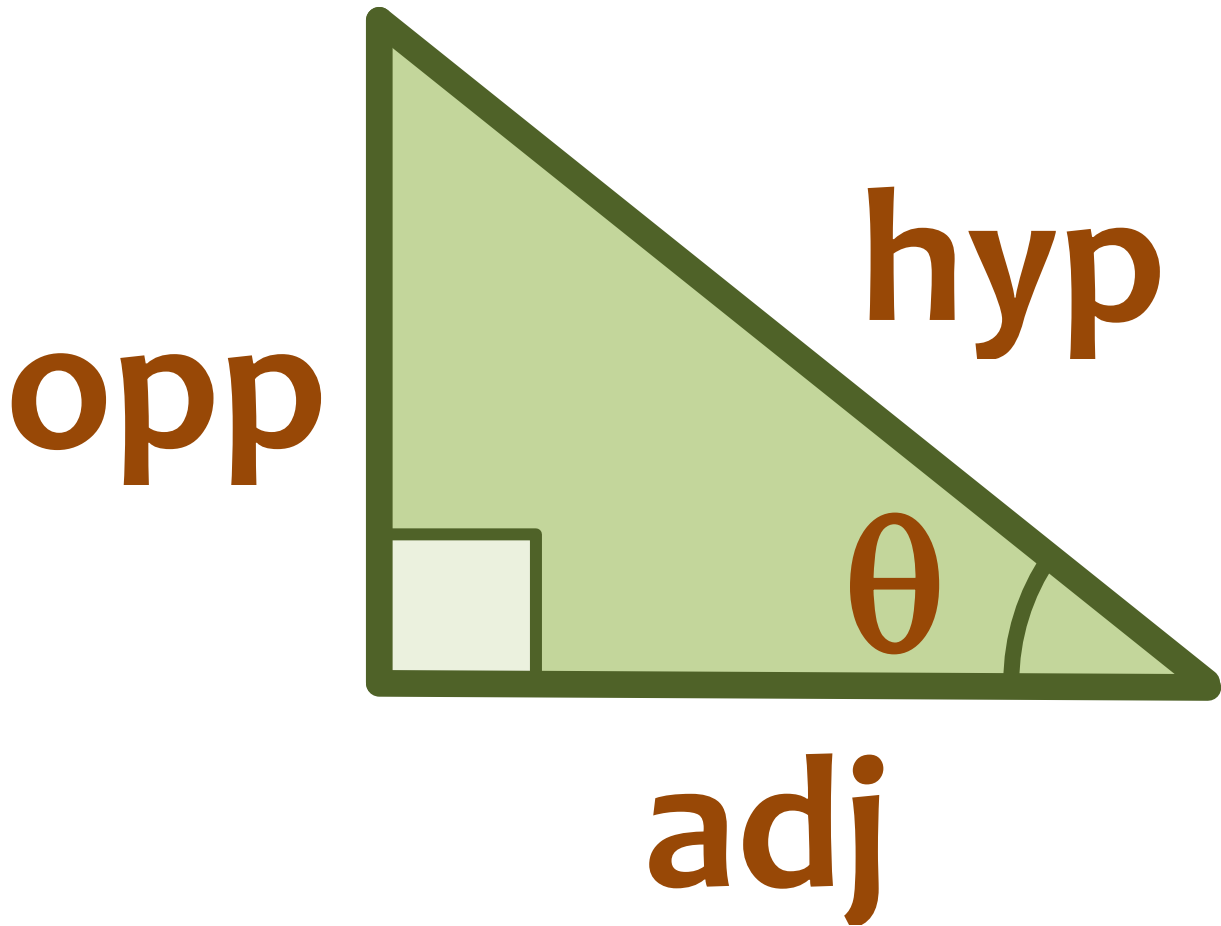
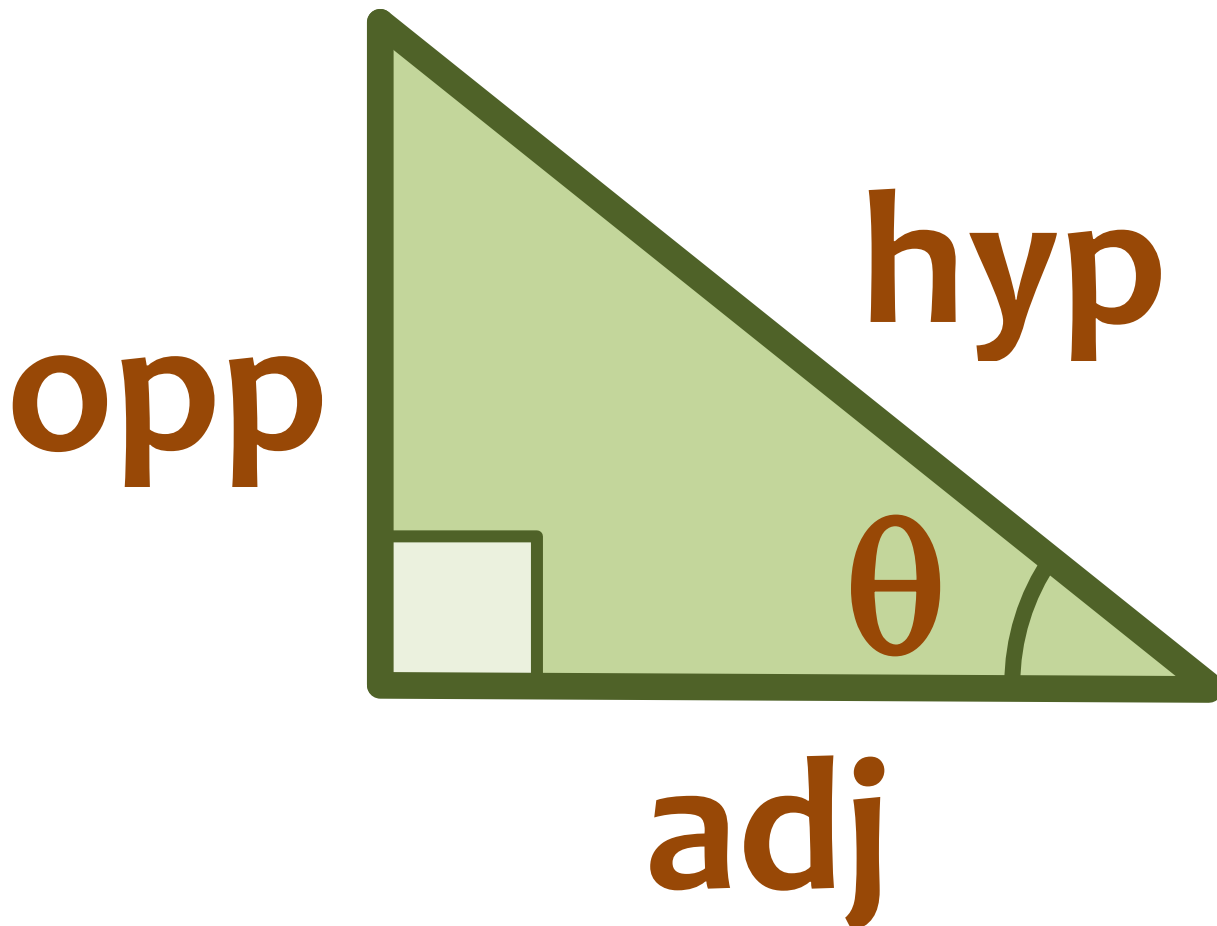


SOH



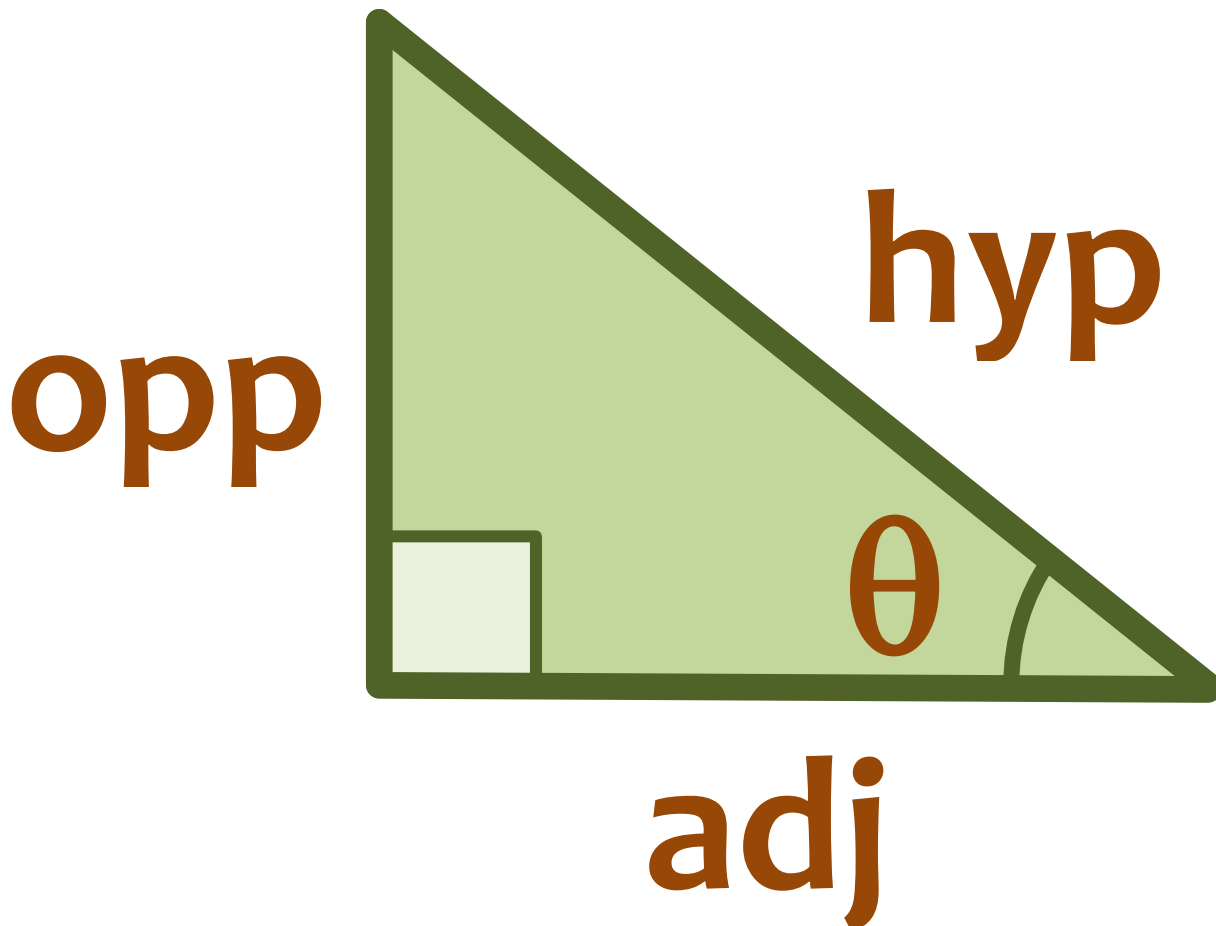
$$\sin \theta = \frac{\text{opposite}}{\text{hypotenuse}}$$

CAH



$$\cos \theta = \frac{\text{adjacent}}{\text{hypotenuse}}$$

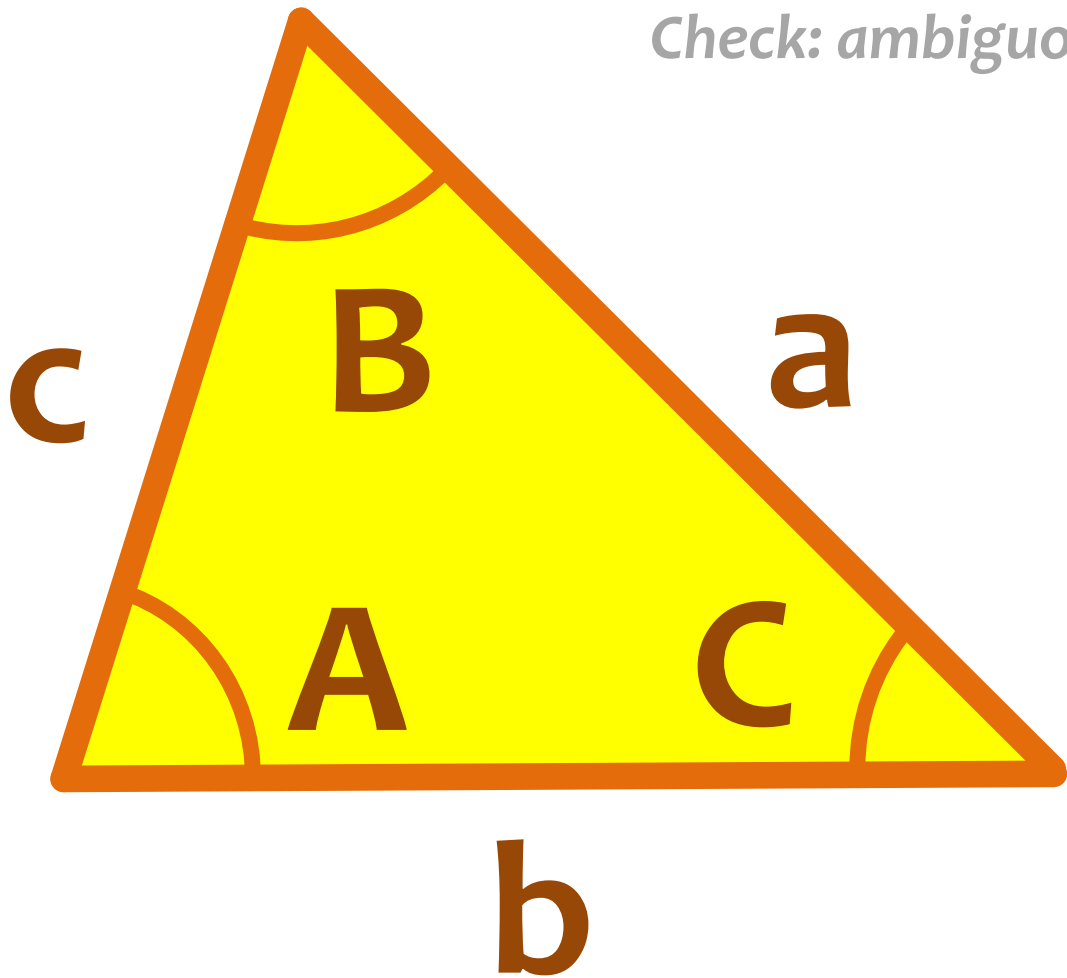
TOA



$$\tan \theta = \frac{\text{opposite}}{\text{adjacent}}$$

Sine rule

Check: ambiguous case

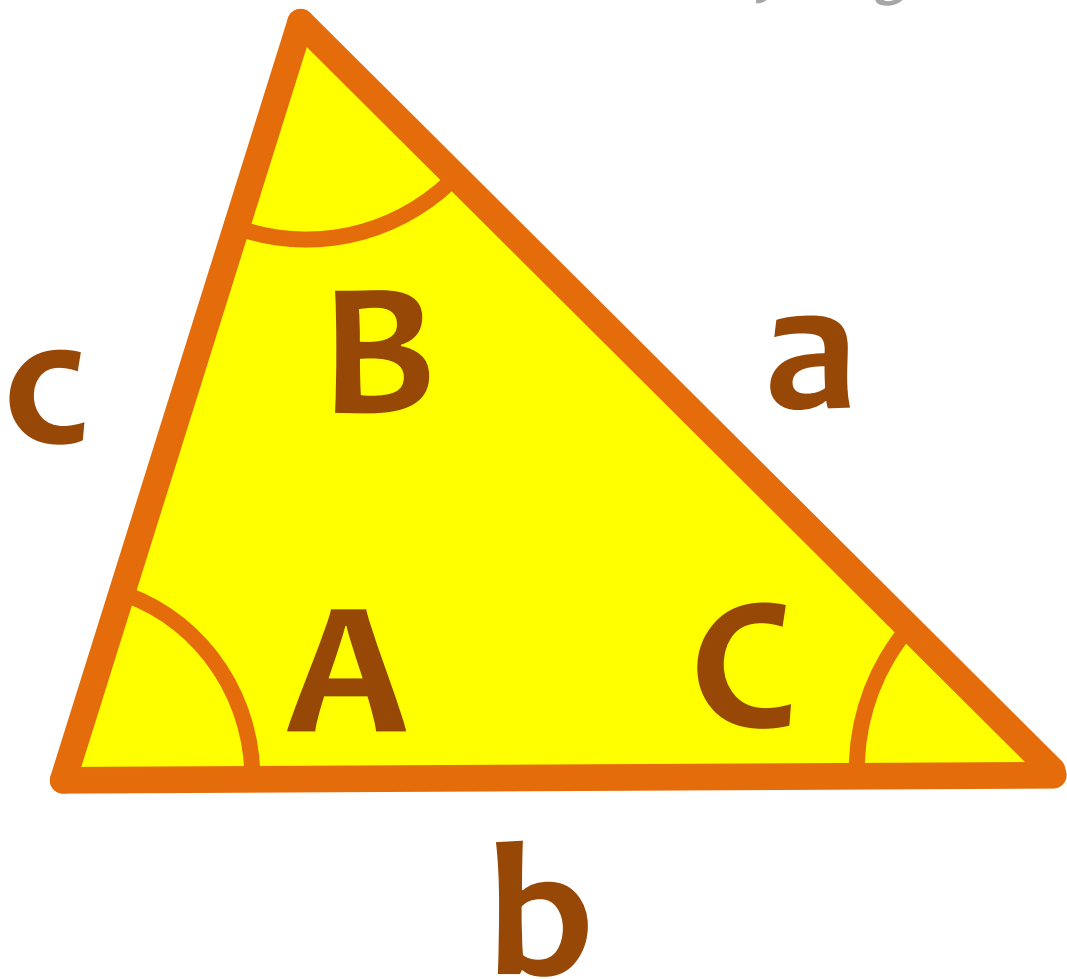


$$\frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C}$$

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

Cosine rule

Pythagoras adapted



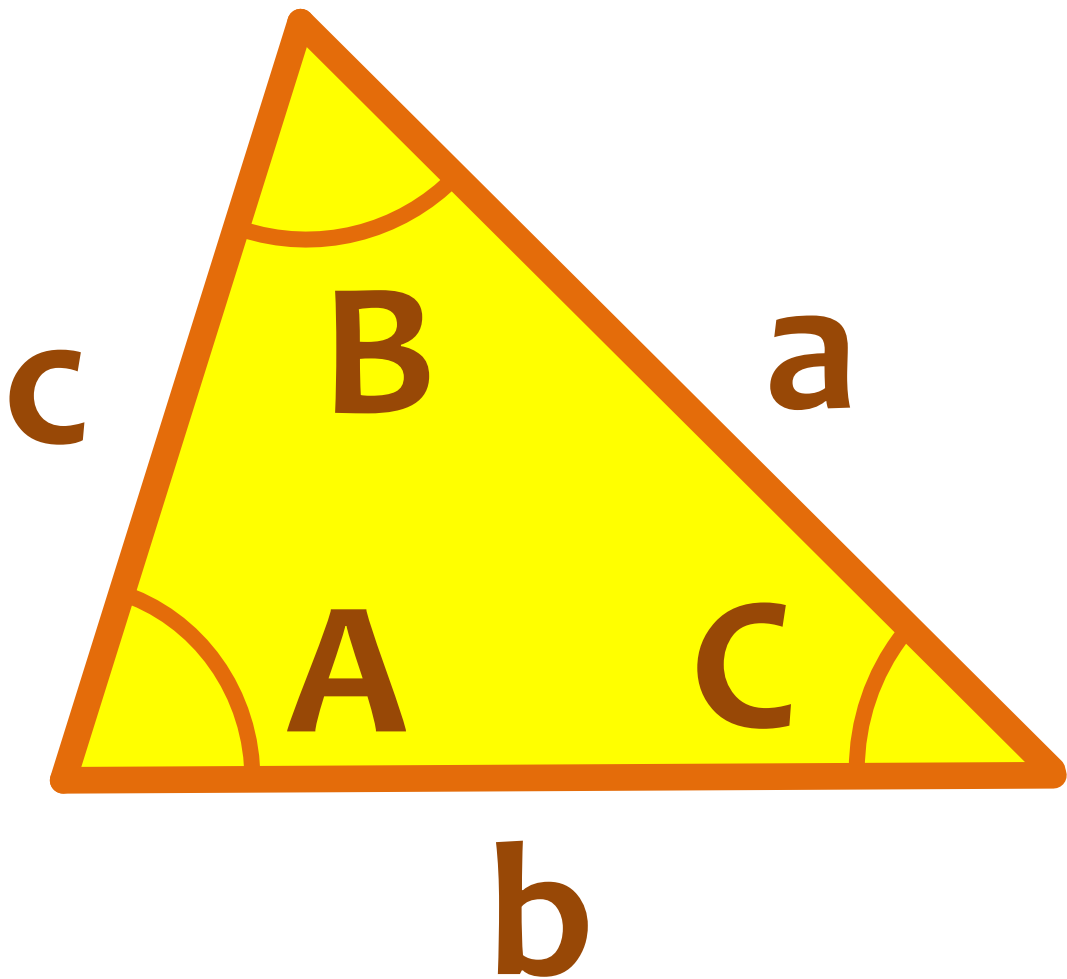
$$a^2 = b^2 + c^2 - 2bc \cos A$$

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

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

Area of a triangle

An alternative



$$\text{Area} = \frac{1}{2} \times a \times b \times \sin C$$

$$\frac{1}{2} \times a \times c \times \sin B$$

$$\frac{1}{2} \times b \times c \times \sin A$$