Solution of Triangle

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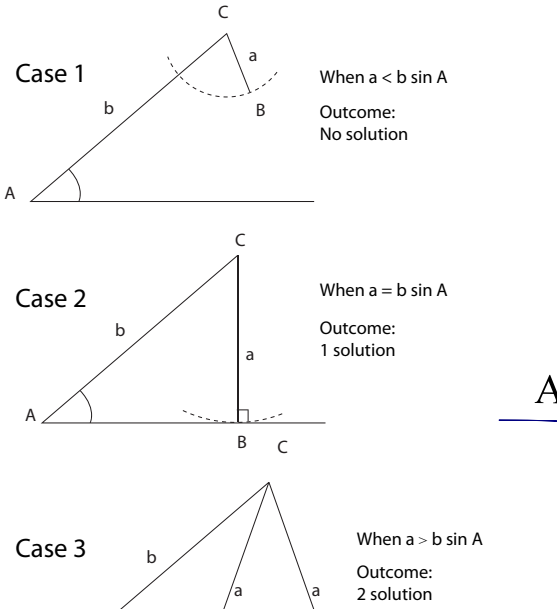
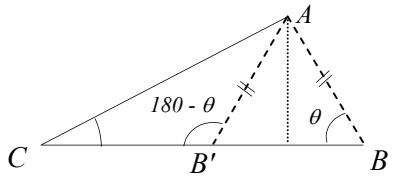
Ambiguous Case

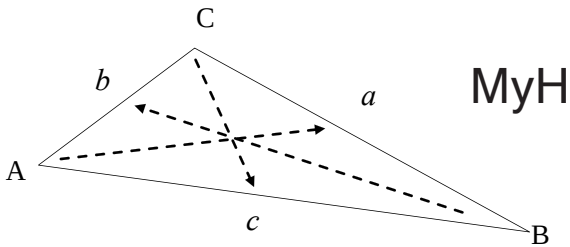




Sine Rule

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

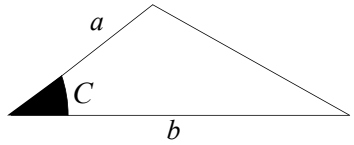
Cosine Rule



$$a^2=b^2+c^2-2bc\cos A$$
$$b^2=a^2+c^2-2ac\cos B$$
$$c^2=a^2+b^2-2ab\cos C$$

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

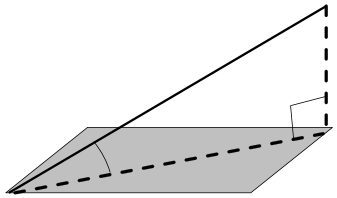
Area of Triangle



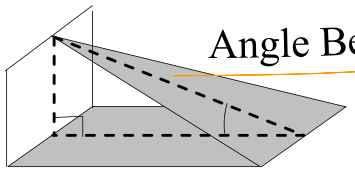
$$A=\frac{1}{2}ab\sin C$$

3 Dimensional Geometry

Angle Between A Line and A Plane



Angle Between 2 Planes



Useful Information:

Phythagoras Theorem: $c=\sqrt{a^2+b^2}$

Trigo ratio: $\sin\theta=\frac{b}{c}$, $\cos\theta=\frac{a}{c}$, $\tan\theta=\frac{b}{a}$

Area = ½ (base)(height)