# Quiz - notes

## Trig Functions (Right Triangle)

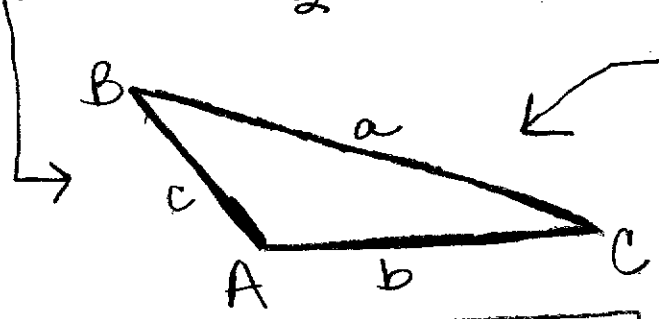
$\sin\theta = \frac{opp}{hyp}$ ⟷ (inverse) $\csc\theta = \frac{hyp}{opp}$

$\cos\theta = \frac{adj}{hyp}$ ⟷ (inverse) $\sec\theta = \frac{hyp}{adj}$

$\tan\theta = \frac{opp}{adj}$ ⟷ (inverse) $\cot\theta = \frac{adj}{opp}$

## Area of Triangle (not a right Δ)(given SAS)

$A_{rea} = \frac{bc\sin A}{2}$ or $A = \frac{ab\sin C}{2}$ or $A = \frac{ac\sin B}{2}$




* Use LoC or LoS to find missing side lengths or angle measures

## Law of Sines (LoS)

for AAS, ASA, SSA

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

## Law of Cosines (LoC)

for SSS or SAS

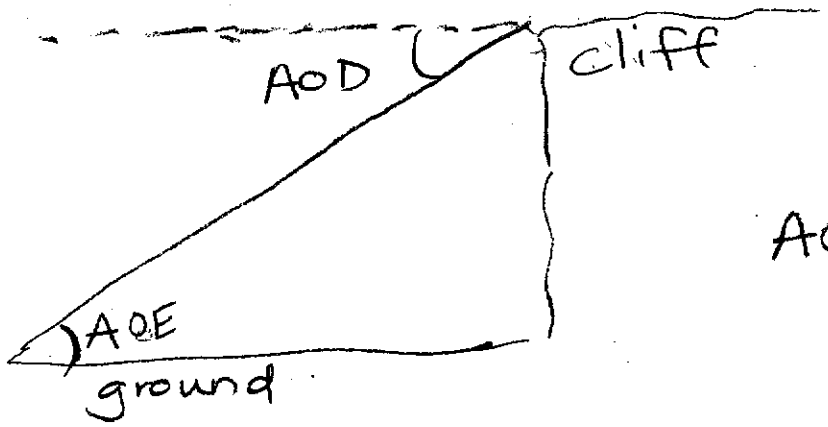
$a^2 = b^2 + c^2 - 2bc(\cos A)$

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

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

* remember - to find an angle measure you must use inverse of sin, cos or tan!
→ $\sin^{-1}$, $\cos^{-1}$, $\tan^{-1}$

# angle of Elevation/Depression
(AOE) (AOD)




AOE = AOE