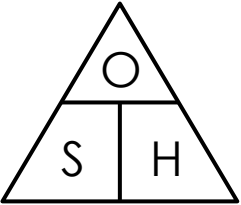
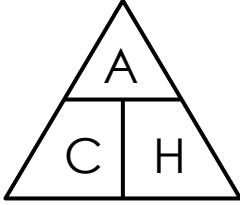
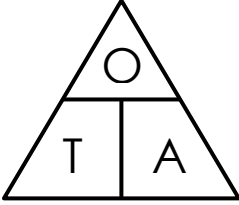
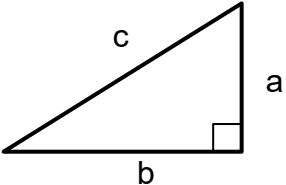


Trigonometry and Geometry Reference

| Sine Ratio | Cosine Ratio | Tangent Ratio |
|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|  |  |  |
| $\sin\theta = \frac{O}{H}$ | $\cos\theta = \frac{A}{H}$ | $\tan\theta = \frac{O}{A}$ |
| $O = H \times \sin\theta$ | $A = H \times \cos\theta$ | $O = A \times \tan\theta$ |
| $H = \frac{O}{\sin\theta}$ | $H = \frac{A}{\cos\theta}$ | $A = \frac{O}{\tan\theta}$ |

| Angle Recovery Via Sin Inverse | Angle Recovery Via Cos Inverse | Angle Recovery Via Tan Inverse |
|----------------------------------------------|----------------------------------------------|----------------------------------------------|
| $\theta = \sin^{-1}\left(\frac{O}{H}\right)$ | $\theta = \cos^{-1}\left(\frac{A}{H}\right)$ | $\theta = \tan^{-1}\left(\frac{O}{A}\right)$ |

| Pythagorean Theorem | | |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------|----------------------------------------------------------------------------|
|  | $a^2 + b^2 = c^2$ $a^2 = c^2 - b^2$ $b^2 = c^2 - a^2$ | $c = \sqrt{a^2 + b^2}$ $a = \sqrt{c^2 - b^2}$ $b = \sqrt{c^2 - a^2}$ |