

Memorizing double angle formulas

$$\cos^2 \theta = \frac{1}{2} + \frac{1}{2} \cos(2\theta)$$

"cosine - combine"

$$\sin^2 \theta = \frac{1}{2} - \frac{1}{2} \cos(2\theta)$$

"sine - subtract"

Angle addition

$$\sin(\alpha \pm \beta) = \sin \alpha \cos \beta \pm \cos \alpha \sin \beta$$

"sin - same sign"

$$\cos(\alpha \pm \beta) = \cos \alpha \cos \beta \mp \sin \alpha \sin \beta$$

"cos - co-function \rightarrow chg. sign"