

SUMA Y RESTA DE ÁNGULOS

$$\cos (\alpha + \beta) = \cos \alpha \cdot \cos \beta - \operatorname{sen} \alpha \cdot \operatorname{sen} \beta$$

$$\cos (\alpha - \beta) = \cos \alpha \cdot \cos \beta + \operatorname{sen} \alpha \cdot \operatorname{sen} \beta$$

$$\operatorname{sen} (\alpha + \beta) = \operatorname{sen} \alpha \cdot \cos \beta + \cos \alpha \cdot \operatorname{sen} \beta$$

$$\operatorname{sen} (\alpha - \beta) = \operatorname{sen} \alpha \cdot \cos \beta - \cos \alpha \cdot \operatorname{sen} \beta$$

ÁNGULO DOBLE

$$\cos (2\alpha) = \cos^2 \alpha - \operatorname{sen}^2 \alpha$$

$$\operatorname{sen} (2\alpha) = 2 \cdot \operatorname{sen} \alpha \cdot \cos \alpha$$

ÁNGULO MITAD

$$\cos (\alpha/2) = \sqrt{\frac{1 + \cos \alpha}{2}}$$

$$\operatorname{sen} (\alpha/2) = \sqrt{\frac{1 - \cos \alpha}{2}}$$