

$$\begin{aligned}\operatorname{sen}(\alpha + \beta) &= \operatorname{sen} \alpha \cos \beta + \cos \alpha \operatorname{sen} \beta \\ \cos(\alpha + \beta) &= \cos \alpha \cos \beta - \operatorname{sen} \alpha \operatorname{sen} \beta\end{aligned}$$

$$\operatorname{sen}^2 \alpha + \cos^2 \alpha = 1$$

$$\operatorname{tg} \alpha = \frac{\operatorname{sen} \alpha}{\cos \alpha} \quad (\text{se } \cos \alpha \neq 0)$$

$$\operatorname{sen}(-\alpha) = -\operatorname{sen} \alpha$$

$$\cos(-\alpha) = \cos \alpha$$

$$(\operatorname{tg}(-\alpha) = -\operatorname{tg} \alpha)$$

$$\operatorname{sen}(\alpha + 2\pi) = \operatorname{sen} \alpha$$

$$\cos(\alpha + 2\pi) = \cos \alpha$$

$$\operatorname{tg}(\alpha + \pi) = \operatorname{tg} \alpha$$

$$\operatorname{sen}(\pi - \alpha) = \operatorname{sen} \alpha$$

$$\cos(2\pi - \alpha) = \cos \alpha$$

$$\cos(\pi - \alpha) = -\cos \alpha$$