

# IDENTIDADES TRIGONOMÉTRICAS

$$\textcircled{1} \quad \sin^2 x + \cos^2 x = 1$$

$$\textcircled{2} \quad 1 + \tan^2 x = \sec^2 x$$

$$\textcircled{3} \quad 1 + \cot^2 x = \csc^2 x$$

$$\rightarrow \textcircled{4} \quad \sin^2 x = \frac{1}{2}(1 - \cos 2x)$$

$$\textcircled{5} \quad \cos^2 x = \frac{1}{2}(1 + \cos 2x)$$

$$\textcircled{6} \quad \sin x \cos x = \frac{1}{2} \sin 2x$$

$$\textcircled{7} \quad \sin x \cos y = \frac{1}{2} [\sin(x-y) + \sin(x+y)]$$

$$\textcircled{8} \quad \sin x \sin y = \frac{1}{2} [\cos(x-y) - \cos(x+y)]$$

$$\textcircled{9} \quad \cos x \cos y = \frac{1}{2} [\cos(x-y) + \cos(x+y)]$$

$$\textcircled{10} \quad 1 - \cos x = 2 \sin^2 \frac{1}{2} x$$

$$\textcircled{11} \quad 1 + \cos x = 2 \cos^2 \frac{1}{2} x$$

$$\textcircled{12} \quad 1 \pm \sin x = 1 \pm \cos(\frac{1}{2}\pi - x)$$