

Identidades trigonométricas que pueden ser de utilidad

$$\sin u + \sin v = 2 \sin \left( \frac{u+v}{2} \right) \cos \left( \frac{u-v}{2} \right)$$

$$\sin u - \sin v = 2 \cos \left( \frac{u+v}{2} \right) \sin \left( \frac{u-v}{2} \right)$$

$$\cos u + \cos v = 2 \cos \left( \frac{u+v}{2} \right) \cos \left( \frac{u-v}{2} \right)$$

$$\cos u - \cos v = -2 \sin \left( \frac{u+v}{2} \right) \sin \left( \frac{u-v}{2} \right)$$

$$\sin\left(\frac{\pi}{2} - \theta\right) = + \cos \theta$$

$$\cos\left(\frac{\pi}{2} - \theta\right) = + \sin \theta$$

$$\tan\left(\frac{\pi}{2} - \theta\right) = + \cot \theta$$

$$\csc\left(\frac{\pi}{2} - \theta\right) = + \sec \theta$$

$$\sec\left(\frac{\pi}{2} - \theta\right) = + \csc \theta$$

$$\cot\left(\frac{\pi}{2} - \theta\right) = + \tan \theta$$

$$\sin u \sin v = \frac{1}{2} [\cos(u-v) - \cos(u+v)]$$

$$\cos u \cos v = \frac{1}{2} [\cos(u-v) + \cos(u+v)]$$

$$\sin u \cos v = \frac{1}{2} [\sin(u+v) + \sin(u-v)]$$

$$\cos u \sin v = \frac{1}{2} [\sin(u+v) - \sin(u-v)]$$