

$$\sin(-\theta) =$$

$$\cos(-\theta) =$$

$$\tan(-\theta) =$$

$$\sin(-\theta) = -\sin \theta$$

$$\cos(-\theta) = \cos \theta$$

$$\tan(-\theta) = -\tan \theta$$

$$\sin(\theta + 2n\pi) =$$

$$\cos(\theta + 2n\pi) =$$

$$\tan(\theta + 2n\pi) =$$

$$\sin(\theta + 2n\pi) = \sin \theta$$

$$\cos(\theta + 2n\pi) = \cos \theta$$

$$\tan(\theta + 2n\pi) = \tan \theta$$

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

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

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

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

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

$$\tan\left(\theta + \frac{\pi}{2}\right) = -\frac{1}{\tan \theta}$$

$$\sin(\theta + \pi) =$$

$$\cos(\theta + \pi) =$$

$$\tan(\theta + \pi) =$$

$$\sin(\theta + \pi) = -\sin \theta$$

$$\cos(\theta + \pi) = -\cos \theta$$

$$\tan(\theta + \pi) = \tan \theta$$

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

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

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

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

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

$$\tan\left(\frac{\pi}{2} - \theta\right) = \frac{1}{\tan \theta}$$

$$\sin(\pi - \theta) =$$

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

$$\tan(\pi - \theta) =$$

$$\sin(\pi - \theta) = \sin \theta$$

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

$$\tan(\pi - \theta) = -\tan \theta$$

$$\tan(\alpha + \beta) =$$

$$\tan(\alpha - \beta) =$$

$$\tan(\alpha + \beta) = \frac{\tan \alpha + \tan \beta}{1 - \tan \alpha \tan \beta}$$

$$\tan(\alpha - \beta) = \frac{\tan \alpha - \tan \beta}{1 + \tan \alpha \tan \beta}$$

$$\sin (\alpha + \beta) =$$

$$\sin (\alpha - \beta) =$$

$$\sin(\alpha + \beta)$$

$$= \sin \alpha \cos \beta + \cos \alpha \sin \beta$$

$$\sin(\alpha - \beta)$$

$$= \sin \alpha \cos \beta - \cos \alpha \sin \beta$$

$$\cos 2\alpha =$$

$$=$$

$$=$$

$$\begin{aligned}\cos 2\alpha &= \cos^2 \alpha - \sin^2 \alpha \\ &= 1 - 2\sin^2 \alpha \\ &= 2\cos^2 \alpha - 1\end{aligned}$$

$$\cos(\alpha + \beta) =$$

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

$$\cos(\alpha + \beta)$$

$$= \cos \alpha \cos \beta - \sin \alpha \sin \beta$$

$$\cos(\alpha - \beta)$$

$$= \cos \alpha \cos \beta + \sin \alpha \sin \beta$$

$$\sin^2 \frac{\alpha}{2} =$$

$$\sin^2 \frac{\alpha}{2} = \frac{1 - \cos \alpha}{2}$$

$$\sin 2\alpha =$$

$$\sin 2\alpha = 2\sin \alpha \cos \alpha$$

$$\tan^2 \frac{\alpha}{2} =$$

$$\tan^2 \frac{\alpha}{2} = \frac{1 - \cos \alpha}{1 + \cos \alpha}$$

$$\tan 2\alpha =$$

$$\tan 2\alpha = \frac{2\tan \alpha}{1 - \tan^2 \alpha}$$

$$\cos^2 \frac{\alpha}{2} =$$

$$\cos^2 \frac{\alpha}{2} = \frac{1 + \cos \alpha}{2}$$

$$\sin x + \cos x =$$

$$\sqrt{2} \sin \left(x + \frac{\pi}{4} \right)$$

$$\sqrt{3} \sin x + \cos x =$$

$$2\sin\left(x + \frac{\pi}{6}\right)$$

$$\sin x - \sqrt{3} \cos x =$$

$$2\sin\left(x - \frac{\pi}{3}\right)$$