Ön Bilgi

$$\sin^2 x + \cos^2 x = 1$$

$$\sin^2 x = \frac{1}{2}(1 - \cos 2x)$$

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

$$\sin(a+b) = \sin a \cdot \cos b + \sin b \cdot \cos a$$

$$\sin(a-b) = \sin a \cdot \cos b - \sin b \cdot \cos a$$

$+$

$$\frac{1}{2}\left[\sin(a+b) + \sin(a-b)\right] = \sin a \cdot \cos b$$

$$\cos(a+b) = \cos a \cdot \cos b - \sin a \cdot \sin b \quad (1)$$

$$+\ \cos(a-b) = \cos a \cdot \cos b + \sin a \cdot \sin b \quad (2)$$

$$\frac{1}{2}\left[\cos(a+b) + \cos(a-b)\right] = \cos a \cdot \cos b$$

$$\frac{1}{2}\left[\cos(a-b) - \cos(a+b)\right] = \sin a \cdot \sin b$$

1. eşitlik (-) ile çarpılıp 2.'ye eklenir.

$1 + \tan^2 x = \sec^2 x$

$1 + \cot^2 x = \operatorname{cosec}^2 x$

$\cos 2x = \cos^2 x - \sin^2 x$

$1 - \sin^2 - \sin^2 x = 1 - 2\sin^2 x$

$\Rightarrow 2\sin^2 x = 1 - \cos 2x$

$\sin^2 x = \frac{1}{2}(1 - \cos 2x)$

$\sin^2 x = \frac{1}{2}(1 - \cos 2x)$

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

$\sec x . \operatorname{cosec} x = \tan x + \cot x$