Formules trigonométriques

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

$\cos^2 x = \dfrac{1}{1+\tan^2 x}$ $\sin^2 x = \dfrac{\tan^2 x}{1+\tan^2 x}$ $1+\tan^2 x = \dfrac{1}{\cos^2 x}$

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

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

$\tan(\pi - x) = -\tan x$ $\tan(\pi + x) = \tan x$ $\tan(-x) = -\tan x$

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

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

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

$\sin(x+y) = \sin x \cos y + \cos x \sin y$

$\sin(x-y) = \sin x \cos y - \cos x \sin y$

$\cos(x+y) = \cos x \cos y - \sin x \sin y$

$\cos(x-y) = \cos x \cos y + \sin x \sin y$

$\tan(x+y) = \dfrac{\tan x + \tan y}{1 - \tan x \tan y}$

$\tan(x-y) = \dfrac{\tan x - \tan y}{1 + \tan x \tan y}$

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

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

$\sin 2x = \dfrac{2\tan x}{1+\tan^2 x}$ $\cos 2x = \dfrac{1-\tan^2 x}{1+\tan^2 x}$ $\tan 2x = \dfrac{2\tan x}{1-\tan^2 x}$

$\sin 3x = 3\sin x - 4\sin^3 x$ $\cos 3x = -3\cos x + 4\cos^3 x$

$\sin p + \sin q = 2 \sin \frac{p+q}{2} \cos \frac{p-q}{2}$

$\sin p - \sin q = 2 \sin \frac{p-q}{2} \cos \frac{p+q}{2}$

$\cos p + \cos q = 2 \cos \frac{p+q}{2} \cos \frac{p-q}{2}$

$\cos p - \cos q = -2 \sin \frac{p+q}{2} \sin \frac{p-q}{2}$

$\tan p + \tan q = \dfrac{\sin(p+q)}{\cos p \cos q}$

$\tan p - \tan q = \dfrac{\sin(p-q)}{\cos p \cos q}$

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

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

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