Kotne funkcije

Adicijski izreki

$$\sin(x \pm y) = \sin x \cos y \pm \sin y \cos x$$
$$\cos(x \pm y) = \cos x \cos y \mp \sin x \sin y$$
$$\tan(x \pm y) = \frac{\tan x \pm \tan y}{1 \mp \tan x \tan y}$$

Dvojni in polovični koti

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

Faktorizacija

$$\sin x + \sin y = 2 \sin \frac{x+y}{2} \cos \frac{x-y}{2}$$
$$\sin x - \sin y = 2 \sin \frac{x-y}{2} \cos \frac{x+y}{2}$$
$$\cos x + \cos y = 2 \cos \frac{x+y}{2} \cos \frac{x-y}{2}$$
$$\cos x - \cos y = 2 \sin \frac{x+y}{2} \sin \frac{y-x}{2}$$

Defaktorizacija

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

Povezave

$$\cos^2 x + \sin^2 x = 1, \quad 1 + \tan^2 x = \tfrac{1}{\cos^2 x}$$
$$\sin\left(\frac{\pi}{2} - x\right) = \cos x$$

Vrednosti kotnih funkcij

$\theta \to$	0	$\frac{\pi}{6}$	$\frac{\pi}{4}$	$\frac{\pi}{3}$	$\frac{\pi}{2}$
$\sin\theta$	0	$\frac{1}{2}$	$\frac{1}{\sqrt{2}}$	$\frac{\sqrt{3}}{2}$	1
$\cos\theta$	1	$\frac{\sqrt{3}}{2}$	$\frac{1}{\sqrt{2}}$	$\frac{1}{2}$	0
$\tan\theta$	0	$\frac{1}{\sqrt{3}}$	1	$\sqrt{3}$	/

$$\sin(\pi - x) = \sin x, \quad \cos(\pi - x) = -\cos x$$
$$\sin(\pi + x) = -\sin x, \quad \cos(\pi + x) = -\cos x$$
$$\sin(2\pi - x) = -\sin x, \quad \cos(2\pi - x) = \cos x$$