Goniometrické funkce

α	0°	30°	45°	60°	90°	180°	270°	360°
x	0	$\frac{\pi}{6}$	$\frac{\pi}{4}$	$\frac{\pi}{3}$	$\frac{\pi}{2}$	π	$\frac{3\pi}{2}$	2π
$\sin x$	0	$\frac{1}{2}$	$\frac{\sqrt{2}}{2}$	$\frac{\sqrt{3}}{2}$	1	0	-1	0
$\cos x$	1	$\frac{\sqrt{3}}{2}$	$\frac{\sqrt{2}}{2}$	$\frac{1}{2}$	0	-1	0	1
$\mathrm{tg}\, x$	0	$\frac{\sqrt{3}}{3}$	1	$\sqrt{3}$	**N**	0	**N**	0
$\mathrm{cotg}\, x$	**N**	$\sqrt{3}$	1	$\frac{\sqrt{3}}{3}$	0	**N**	0	**N**

$$\mathrm{tg}\, x = \frac{\sin x}{\cos x} \qquad \mathrm{cotg}\, x = \frac{\cos x}{\sin x}$$

$$\sin(-x) = -\sin x \qquad \cos(-x) = \cos x \qquad \mathrm{tg}(-x) = -\mathrm{tg}\, x \qquad \mathrm{cotg}(-x) = -\mathrm{cotg}\, x$$

$$\sin x = \sin(\pi - x) = -\sin(\pi + x) = -\sin(2\pi - x) \qquad \sin(x + 2k\pi) = \sin(x)$$

$$\cos x = -\cos(\pi - x) = -\sin(\pi + x) = \sin(2\pi - x) \qquad \cos(x + 2k\pi) = \cos(x)$$

$$\sin^2 x + \cos^2 x = 1 \qquad \mathrm{tg}\, x . \mathrm{cotg}\, x = 1$$

$$\sin(x \pm y) = \sin x \cos y \pm \cos x \sin y \qquad \cos(x \pm y) = \cos x \cos y \mp \sin x \sin y$$

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

$$\left|\sin \frac{x}{2}\right| = \sqrt{\frac{1 - \cos x}{2}} \qquad \left|\cos \frac{x}{2}\right| = \sqrt{\frac{1 + \cos x}{2}}$$

$$\mathrm{tg}(x \pm y) = \frac{\mathrm{tg}\, x \pm \mathrm{tg}\, y}{1 \mp \mathrm{tg}\, x . \mathrm{tg}\, y} \qquad \mathrm{tg}\, 2x = \frac{2\, \mathrm{tg}\, x}{1 - \mathrm{tg}^2 x}$$

$$\left|\mathrm{tg} \frac{x}{2}\right| = \sqrt{\frac{1 - \cos x}{1 + \cos x}} \qquad \mathrm{tg}(x + k\pi) = \mathrm{tg}\, x \qquad \mathrm{cotg}(x + k\pi) = \mathrm{cotg}\, x$$

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

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