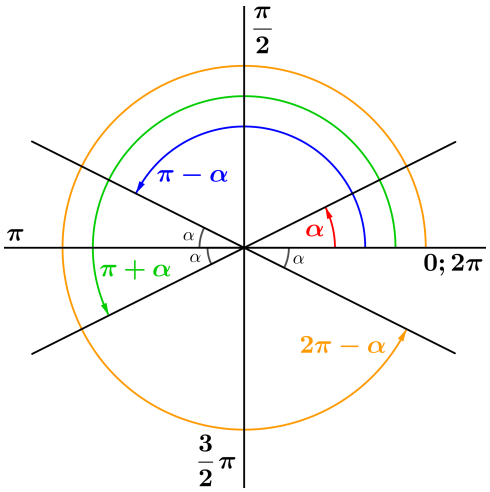
URČOVÁNÍ HODNOT GONIOMETRICKÝCH FUNKCÍ

Jednotková kružnice:



Znaménko goniometrických funkcí:

$\sin x$	
$+$	$+$
$-$	$-$

$\cos x$	
$-$	$+$
$-$	$+$

$\operatorname{tg} x$	
$-$	$+$
$+$	$-$

$\operatorname{cotg} x$	
$-$	$+$
$+$	$-$

Pro $\alpha \in (0, \frac{\pi}{2})$ platí:

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

$$\operatorname{tg}(\pi - \alpha) = -\operatorname{tg}\alpha \qquad \operatorname{cotg}(\pi - \alpha) = -\operatorname{cotg}\alpha$$
$$\operatorname{tg}(\pi + \alpha) = \operatorname{tg}\alpha \qquad \operatorname{cotg}(\pi + \alpha) = \operatorname{cotg}\alpha$$
$$\operatorname{tg}(2\pi - \alpha) = -\operatorname{tg}\alpha \qquad \operatorname{cotg}(2\pi - \alpha) = -\operatorname{cotg}\alpha$$

Tabulka významných hodnot:

x	0	$\frac{\pi}{6}$	$\frac{\pi}{4}$	$\frac{\pi}{3}$	$\frac{\pi}{2}$	π	$\frac{3}{2}\pi$
$\sin x$	0	$\frac{1}{2}$	$\frac{\sqrt{2}}{2}$	$\frac{\sqrt{3}}{2}$	1	0	-1
$\cos x$	1	$\frac{\sqrt{3}}{2}$	$\frac{\sqrt{2}}{2}$	$\frac{1}{2}$	0	-1	0
$\operatorname{tg} x$	0	$\frac{\sqrt{3}}{3}$	1	$\sqrt{3}$	$/$	0	$/$
$\operatorname{cotg} x$	$/$	$\sqrt{3}$	1	$\frac{\sqrt{3}}{3}$	0	$/$	0