

9 GONIOMETRICKÉ ROVNICE

- převod stupně - radiány

$$1\pi = 180^\circ$$

• GONIOMETRICKÉ VZORCE

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

$$\sin 2x = 2 \cdot \sin x \cdot \cos x$$

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

$$\operatorname{tg} x = \frac{\sin x}{\cos x}$$

$$\operatorname{cotg} x = \frac{\cos x}{\sin x}$$

- substituce $u = \sin x$ / $u = \cos x$

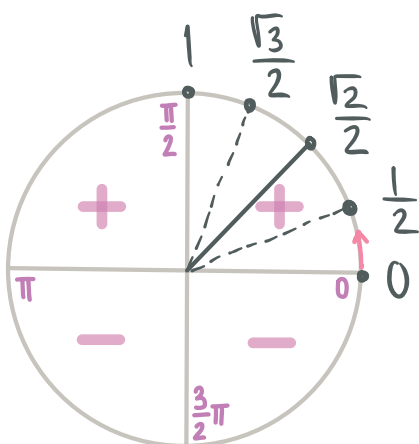
→ kvadratická rovnice

- perioda $\begin{cases} \rightarrow \sin x \text{ a } \cos x & + 2k\pi \\ \rightarrow \operatorname{tg} x \text{ a } \operatorname{cotg} x & + k\pi \end{cases}$

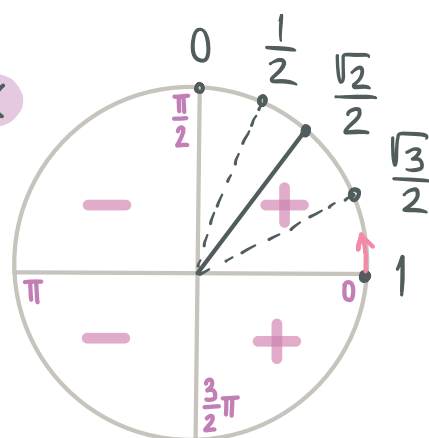


stupně	radiány	$\sin x$	$\cos x$	$\operatorname{tg} x$	$\operatorname{cotg} x$
0°	0	0	1	0	-
30°	$\frac{\pi}{6}$	$\frac{1}{2}$	$\frac{\sqrt{3}}{2}$	$\frac{\sqrt{3}}{3}$	$\sqrt{3}$
45°	$\frac{\pi}{4}$	$\frac{\sqrt{2}}{2}$	$\frac{\sqrt{2}}{2}$	1	1
60°	$\frac{\pi}{3}$	$\frac{\sqrt{3}}{2}$	$\frac{1}{2}$	$\sqrt{3}$	$\frac{\sqrt{3}}{3}$
90°	$\frac{\pi}{2}$	1	0	-	0

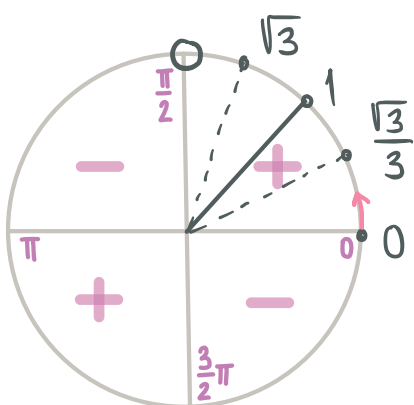
$\sin x$



$\cos x$



$\operatorname{tg} x$



$\operatorname{cotg} x$

