

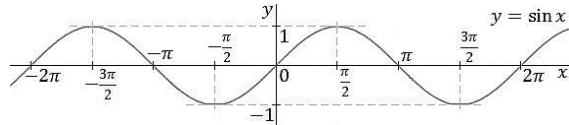
# GONIOMETRICKÉ FUNKCE

## SINUS

$$f: y = \sin x$$

$$D(f) = \mathbf{R}$$

$$H(f) = \langle -1, 1 \rangle$$

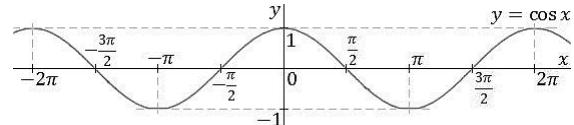


## KOSINUS

$$f: y = \cos x$$

$$D(f) = \mathbf{R}$$

$$H(f) = \langle -1, 1 \rangle$$

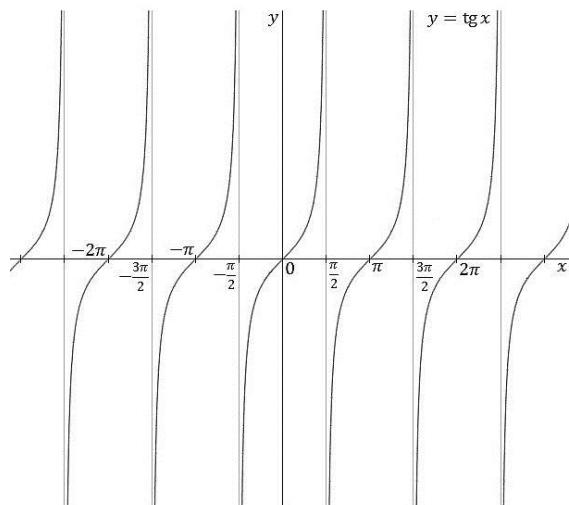


## TANGENS

$$f: y = \operatorname{tg} x = \frac{\sin x}{\cos x}$$

$$D(f) = \mathbf{R} - \left\{ (2k+1)\frac{\pi}{2}; k \in \mathbf{Z} \right\}$$

$$H(f) = \mathbf{R}$$

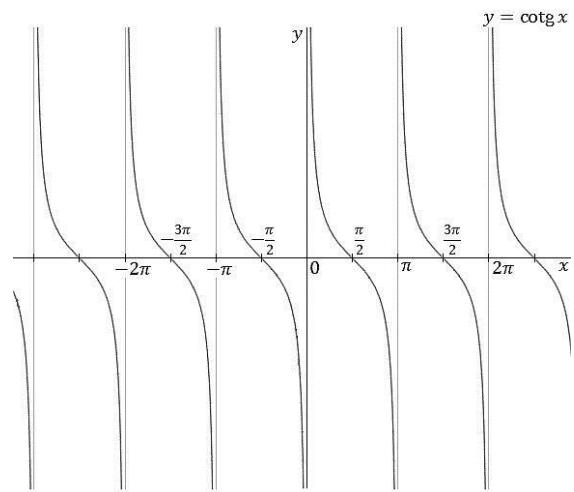


## KOTANGENS

$$f: y = \operatorname{cotg} x = \frac{\cos x}{\sin x}$$

$$D(f) = \mathbf{R} - \{k\pi; k \in \mathbf{Z}\}$$

$$H(f) = \mathbf{R}$$



Tabulka významných hodnot:

|                         | 0 | $\frac{\pi}{6}$      | $\frac{\pi}{4}$      | $\frac{\pi}{3}$      | $\frac{\pi}{2}$ | $\pi$ | $\frac{3\pi}{2}$ |
|-------------------------|---|----------------------|----------------------|----------------------|-----------------|-------|------------------|
| $\sin x$                | 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                |