

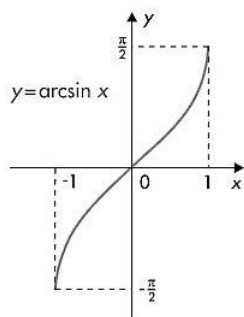
CYKLOMETRICKÉ FUNKCE

ARKUSSINUS

$$f: y = \sin x \quad \rightarrow \quad f^{-1}: y = \arcsin x$$

$$D(f) = \left\langle -\frac{\pi}{2}, \frac{\pi}{2} \right\rangle \quad D(f^{-1}) = \langle -1, 1 \rangle$$

$$H(f) = \langle -1, 1 \rangle \quad H(f^{-1}) = \left\langle -\frac{\pi}{2}, \frac{\pi}{2} \right\rangle$$

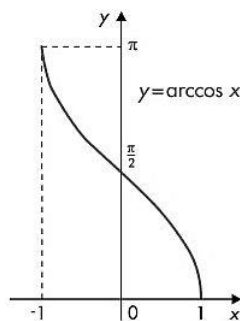


ARKUSKOSINUS

$$f: y = \cos x \quad \rightarrow \quad f^{-1}: y = \arccos x$$

$$D(f) = \langle 0, \pi \rangle \quad D(f^{-1}) = \langle -1, 1 \rangle$$

$$H(f) = \langle -1, 1 \rangle \quad H(f^{-1}) = \langle 0, \pi \rangle$$

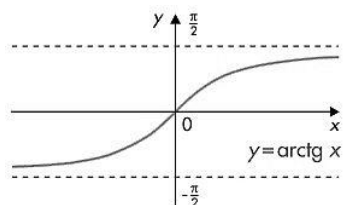


ARKUSTANGENS

$$f: y = \operatorname{tg} x \quad \rightarrow \quad f^{-1}: y = \operatorname{arctg} x$$

$$D(f) = \left(-\frac{\pi}{2}, \frac{\pi}{2} \right) \quad D(f^{-1}) = \mathbf{R}$$

$$H(f) = \mathbf{R} \quad H(f^{-1}) = \left(-\frac{\pi}{2}, \frac{\pi}{2} \right)$$

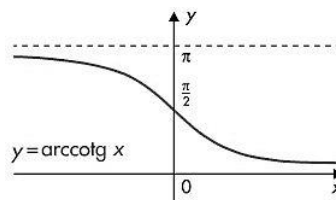


ARKUSKOTANGENS

$$f: y = \operatorname{cotg} x \quad \rightarrow \quad f^{-1}: y = \operatorname{arccotg} x$$

$$D(f) = (0, \pi) \quad D(f^{-1}) = \mathbf{R}$$

$$H(f) = \mathbf{R} \quad H(f^{-1}) = (0, \pi)$$



Tabulky významných hodnot:

| | | | | | |
|-------------|-----------------|-----------------|----------------------|----------------------|-----------------|
| | 0 | $\frac{1}{2}$ | $\frac{\sqrt{2}}{2}$ | $\frac{\sqrt{3}}{2}$ | 1 |
| $\arcsin x$ | 0 | $\frac{\pi}{6}$ | $\frac{\pi}{4}$ | $\frac{\pi}{3}$ | $\frac{\pi}{2}$ |
| $\arccos x$ | $\frac{\pi}{2}$ | $\frac{\pi}{3}$ | $\frac{\pi}{4}$ | $\frac{\pi}{6}$ | 0 |

| | | | | |
|----------------------------|-----------------|----------------------|-----------------|-----------------|
| | 0 | $\frac{\sqrt{3}}{3}$ | 1 | $\sqrt{3}$ |
| $\operatorname{arctg} x$ | 0 | $\frac{\pi}{6}$ | $\frac{\pi}{4}$ | $\frac{\pi}{3}$ |
| $\operatorname{arccotg} x$ | $\frac{\pi}{2}$ | $\frac{\pi}{3}$ | $\frac{\pi}{4}$ | $\frac{\pi}{6}$ |