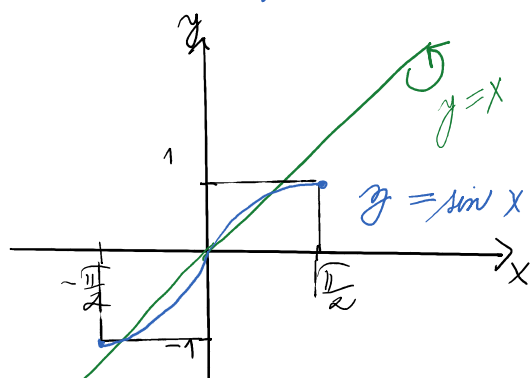
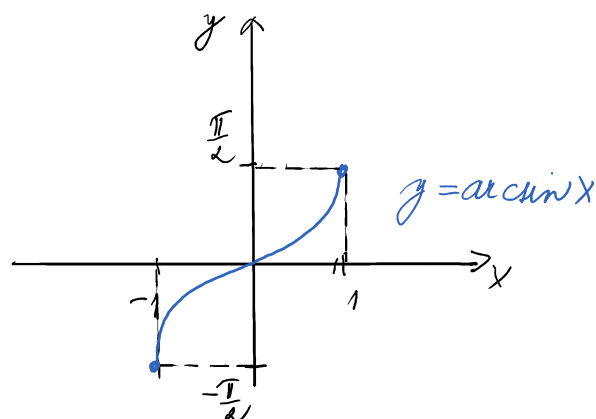


$$y = \sin x \quad D(f) = \left\langle -\frac{\pi}{2}, \frac{\pi}{2} \right\rangle \text{ rastúca} \Rightarrow \exists \text{ inverzná funkcia}$$



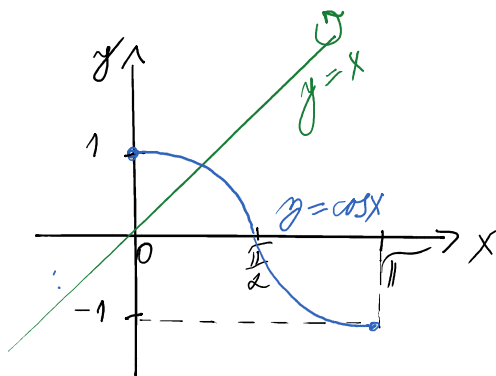
$$f: \begin{aligned} \sin \frac{\pi}{2} &= 1 \\ \sin 0 &= 0 \\ \sin \left(-\frac{\pi}{2}\right) &= -1 \end{aligned}$$



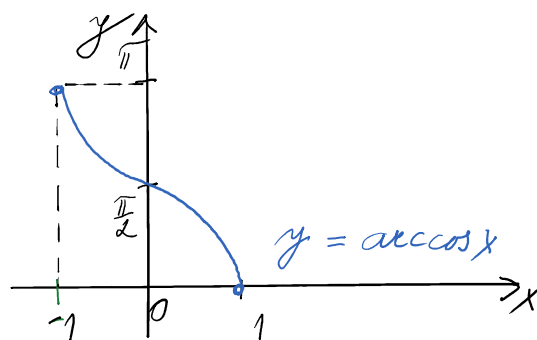
$$f^{-1}: \begin{aligned} \arcsin 1 &= \frac{\pi}{2} \\ \arcsin 0 &= 0 \\ \arcsin -1 &= -\frac{\pi}{2} \end{aligned}$$

$$\begin{aligned} D(f) &= \left\langle -\frac{\pi}{2}, \frac{\pi}{2} \right\rangle = H(f^{-1}) \\ H(f) &= \langle -1, 1 \rangle = D(f^{-1}) \end{aligned}$$

$$y = \cos x \quad D(f) = \langle 0, \pi \rangle \text{ klesajúca} \Rightarrow \exists \text{ inverzná funkcia}$$



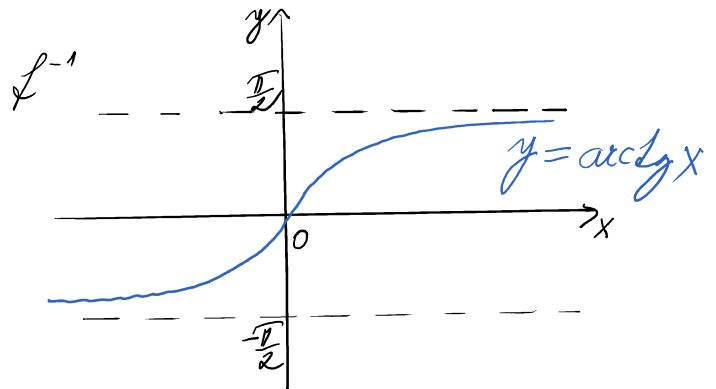
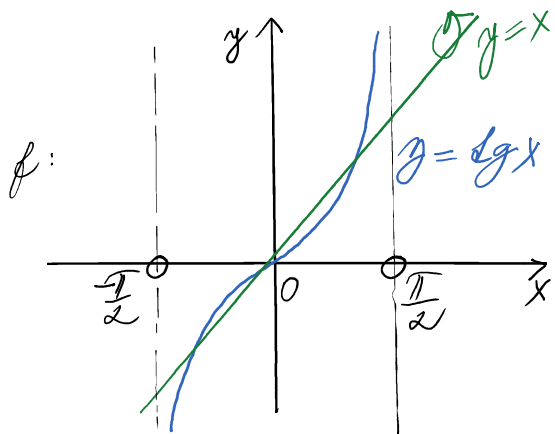
$$f: \begin{aligned} \cos 0 &= 1 \\ \cos \frac{\pi}{2} &= 0 \\ \cos \pi &= -1 \end{aligned}$$



$$f^{-1}: \begin{aligned} \arccos 1 &= 0 \\ \arccos 0 &= \frac{\pi}{2} \\ \arccos -1 &= \pi \end{aligned}$$

$$\begin{aligned} D(f) &= \langle 0, \pi \rangle = H(f^{-1}) \\ H(f) &= \langle -1, 1 \rangle = D(f^{-1}) \end{aligned}$$

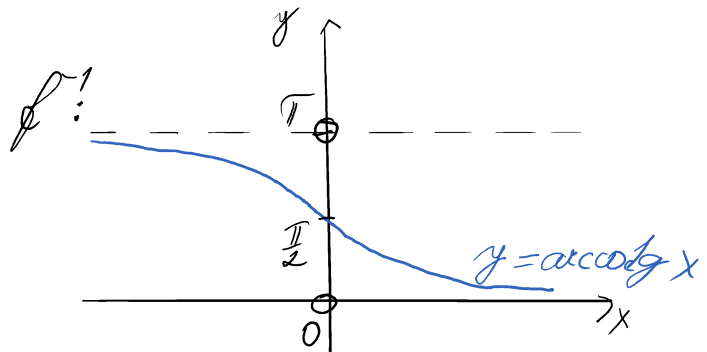
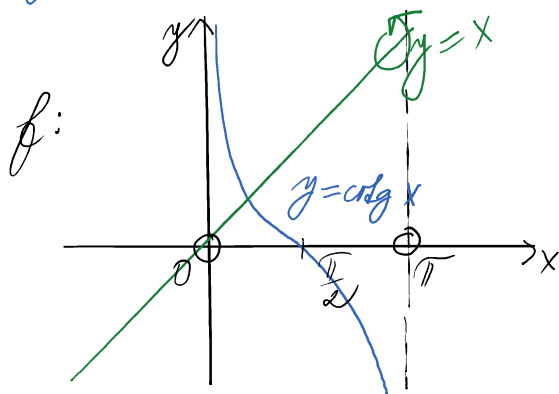
$$y = \lg x \quad D(f) = \left(-\frac{\pi}{2}, \frac{\pi}{2}\right) \quad \text{rastáca} \Rightarrow \text{f inverzná funkcia}$$



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

$$H(f) = \mathbb{R} = D(f^{-1})$$

$$y = \operatorname{arctg} x \quad D(f) = (0, \pi) \quad \text{klesajúca} \Rightarrow \text{f inverzná funkcia}$$



$$D(f) = (0, \pi) = H(f^{-1})$$

$$H(f) = \mathbb{R} = D(f^{-1})$$