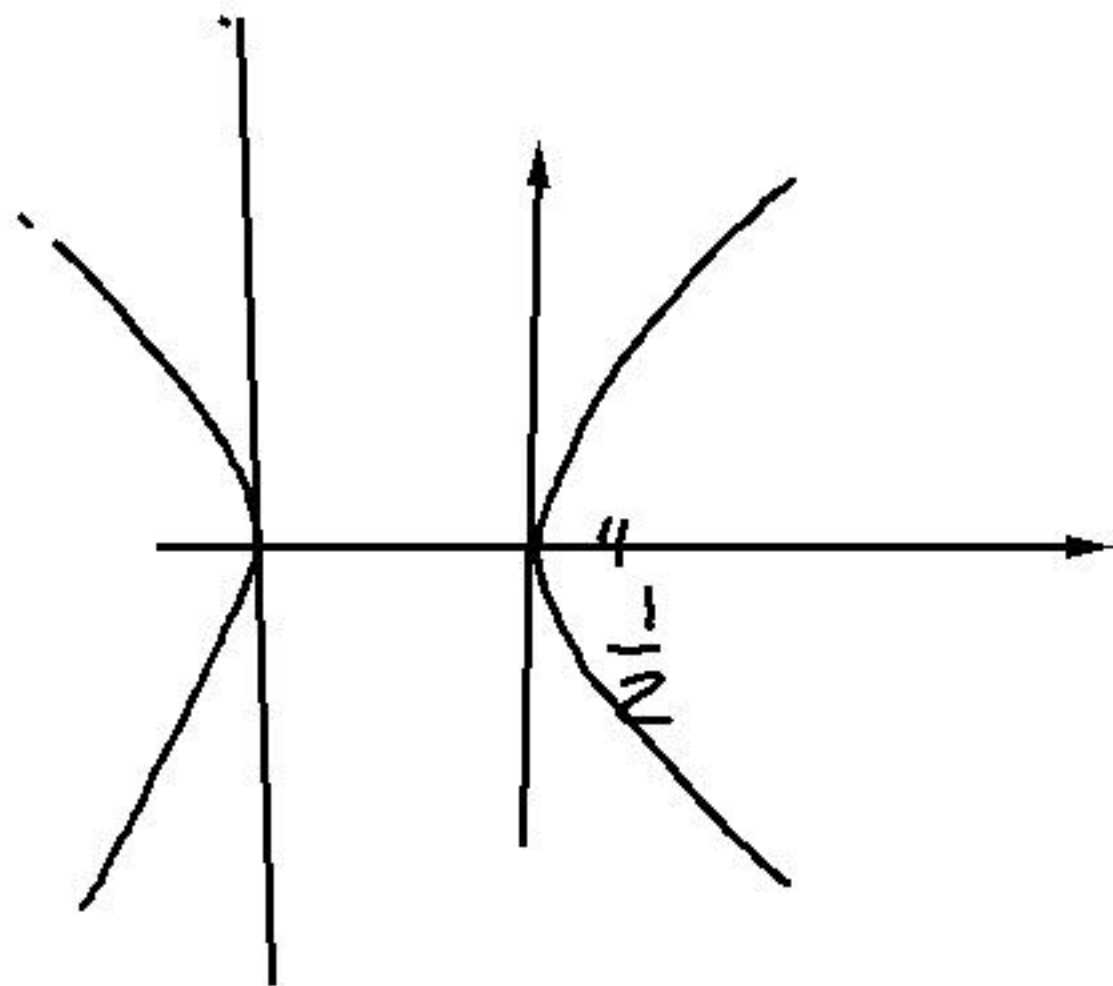


$$D = \mathbb{R}$$

$$f(x) = \begin{cases} \sqrt{x+x^2} & \text{für } x \leq -1 \vee x \geq 0 \\ -\sqrt{-x-x^2} & \text{für } -1 < x < 0 \end{cases}$$

$$\begin{cases} x+x^2 \geq 0 \\ x \leq -1 \vee x \geq 0 \end{cases}$$

$$\begin{cases} x(1+x) \geq 0 \\ x \leq -1 \vee x \geq 0 \end{cases}$$



$$\begin{cases} y = \sqrt{x+x^2} \\ y \geq 0 \\ y^2 = x+x^2 \\ x \leq -1 \vee x \geq 0 \end{cases}$$

$$\begin{cases} y \geq 0 \\ -x^2 + y^2 = x \\ x \leq -1 \vee x \geq 0 \end{cases}$$

$$\begin{aligned} x^2 + x - y^2 + x &= 0 \\ x^2 + x &\rightarrow \left(x + \frac{1}{2}\right)^2 - \frac{1}{4} \\ x^2 + y^2 &= -\frac{1}{4} \\ \frac{x^2}{-1/4} - \frac{y^2}{1/4} &= 1 \end{aligned}$$

$$\frac{x^2}{a^2} - \frac{y^2}{b^2} = +1$$

$$b^2 x^2 - a^2 y^2 = a^2 b^2$$
$$-a^2 y^2 = \underline{\underline{a^2 b^2 - b^2 x^2}} \leq 0$$

$$y < x$$

$$b^2 (a^2 - x^2) \leq 0$$
$$a^2 - x^2 \leq 0$$

$$x \leq -a \vee x \geq a$$

