

$$\begin{cases} x > 0 \\ x < 0 \end{cases} \rightarrow \sqrt{\frac{x-x^2}{x(1-x)}} \xrightarrow{\text{Quadrat}} \frac{1-x}{\sqrt{x-x^2}} = 0 \rightarrow x = 1/2 > 0, 1$$

$$\sqrt{\frac{x(1+x)}{x^2+2}} \xrightarrow{\text{Quadrat}} \frac{\sqrt{x+1}}{\sqrt{x^2+2}} \rightarrow x = 0, -1, \text{ (nicht!)}$$

$$K+m+n = 2 + 1/2 + \sqrt{1/2}$$

$$y = \sqrt{x} + \sqrt{6-4x}$$

$$x=0 \rightarrow \sqrt{6}$$

$$x = \frac{6}{4} \rightarrow \sqrt{\frac{3}{2}}$$

$$\frac{a^y}{y} = 1/y$$

$$a^y = y^y \quad a = \sqrt{y^e} \quad [a] = F$$

$$x^y \rightarrow f(x) = \frac{x^y - \epsilon x^y}{x^y - 1} = \frac{x^y - \epsilon x^y}{x^y - 1} \Rightarrow \frac{F x^y - \epsilon x^y}{(x^y - 1)^y}$$

$$\rightarrow \frac{F x^y - \epsilon x^y}{x^y - 1} \Rightarrow \frac{(x^y - F x^y)(x^y - 1) - y x^y (x^y - \epsilon x^y)}{(x^y - 1)^y}$$

$$\frac{F x^y - \epsilon x^y}{x^y - 1} = \frac{F x^y - \epsilon x^y + \Lambda x^y}{(x^y - 1)^y}$$

$$= \frac{y x^y - F x^y + \Lambda x^y}{(x^y - 1)^y}$$

$$y a x^y + y b x = 0 \quad y a x^y + y b x + c = 0$$

$$a + b + c = 0 \quad d = 0$$

$$b = 1 \quad a = -1 \quad c = 0$$

$$y = x^y > 0 \rightarrow x^{(y-x^y)} = y x - x^y \rightarrow y - y x^y = 0 \quad x = \pm 1 \checkmark$$

$$\begin{cases} a = 1 \rightarrow y \\ a = -1 \rightarrow -1x = -y \\ x = -1 \rightarrow -1^y = -y \end{cases}$$

$$y - x^y + y a x^y + b \rightarrow -y x^y + y a x^y = 0$$

$$1 + y a + b = 1 \quad -y x^y (x - y a) = 0$$

$$a = -1/2 \quad b = 1/2$$

$$y = \frac{a}{a+1} \quad x = \frac{-a+1}{a+1}$$

$$\min_{a \in \mathbb{R}} = \frac{-b}{y a} = \frac{-1}{y} = \frac{-a+1}{a+1}$$

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

$$a = F$$

$$\frac{b}{F} = y \quad b = 1/y \quad \frac{b}{a} = \frac{1/y}{F} = \frac{1}{y F}$$

$$\frac{x^k}{x^k - 1} \rightarrow \frac{1x^k - 1x^k + 1x^k - 1x^k}{(x^k - 1)^2} < 0 \quad \boxed{9}$$

$$\frac{x^k (x^k - 1)^{-1}}{(x^k - 1)^2} < 0 \quad \frac{0 \quad 1 \quad \frac{1}{x^k}}{-1 \quad 1 \quad -1 \quad 1}$$

$$f'(x) < 0$$

$$f(x) \rightarrow \boxed{0.12(1)} - 10$$

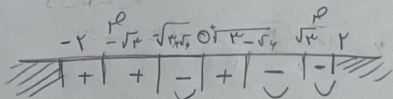
$$\frac{(1+x^k)(x^k - 1) - (1x^k)(x^k - 1)}{(x^k - 1)^2} < 0$$

$$\frac{1x^k - 1x^k + 1x^k - 1x^k + 1x^k - 1x^k}{(x^k - 1)^2}$$

! Wolfram = $\sqrt{1+x^k}$

$$\frac{1x^k - 1x^k + 1x^k - 1x^k}{(x^k - 1)^2} < 0$$

$$\frac{1x^k (x^k - 1x^k + 1)}{(x^k - 1)^2} < 0$$



$$ax^2 = t \quad t^2 - 4t + 1 = 0$$

$$t^2 - 4t + 1 = 16$$

$$t^2 = \frac{7 \pm \sqrt{49 - 4}}{2} = 4 \pm \sqrt{5}$$

$$t = \sqrt{4 \pm \sqrt{5}} \rightarrow \frac{\pm \sqrt{4 + \sqrt{5}}}{\sqrt{1 - \sqrt{5}}}$$