

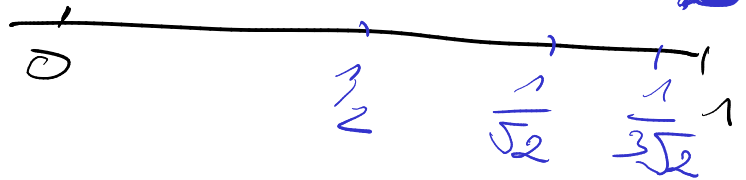
$$f_n = \sin(\pi x^n) \quad \text{na } [0,1]$$

$$f = 0$$

$$g_4 \rightarrow \begin{array}{l} x_1 = 0 \\ x_2 = \sqrt[4]{\frac{1}{2}} \end{array} \quad \begin{array}{l} f_n(0) = 0 \\ f_n(\sqrt[4]{\frac{1}{2}}) = 1 \end{array}$$

$$f_n = 1 \not\rightarrow 0 \Rightarrow f_n \not\rightarrow 0 \quad \text{na } [0,1]$$

Kol



$$\sup_{\text{olge}} \underline{(a, 1)} = 1$$

s.d. na $(a, 1)$ $(a, 1]$

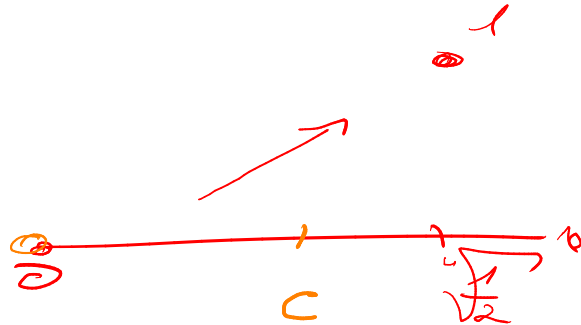
$$[0, c]$$

$$[0, \frac{1}{2}]$$

$$\sqrt[n]{2} \quad n \geq 2, n_0$$

sk ma $\nearrow$

$$T_n = \sup | \sin(\pi x^n) | = | \sin(\pi c^n) |$$



$$\lim_{n \rightarrow \infty} | \sin(\pi c^n) | = 0$$

$$f_n \Rightarrow 0 \quad \text{na} \quad [0, c]$$

Zeiler

$$f_n \xrightarrow{\text{loc}} 0 \quad \text{na} \quad [0, 1)$$

$$[0, \infty)$$

$$[a, b] \quad \text{s.t.} \quad ?$$

$$[0, b] \quad ?$$

$$[a, b]$$

$$f_n = \frac{1}{n} \arctan x^n$$

$$f = 0$$

$$x \in \mathbb{R}$$

$$f_n' = \frac{x^{n-1}}{1+x^{2n}}$$

$$f' = \sum_{k=0}^{\infty} \frac{1}{2} x^{2k} (-1, 1)$$

$$\begin{array}{c} \text{---} \\ f_n \rightarrow f \\ \rightarrow f_n \rightarrow f' \end{array}$$

