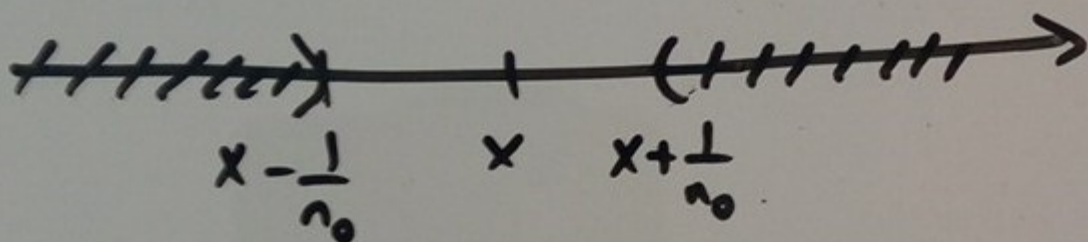


$$\begin{aligned} \Rightarrow E &\subset A_{n_1} \cup \dots \cup A_{n_k} \\ &= A_{\max(n_1, \dots, n_k)} \end{aligned}$$

Denote $n_0 = \max(n_1, \dots, n_k)$.

Then, $E \subset (-\infty, x - \frac{1}{n_0}) \cup (x + \frac{1}{n_0}, +\infty)$.



$\Rightarrow x$ is not an acc. point of E .

$\Rightarrow x \notin \bar{E}$. Contradiction.