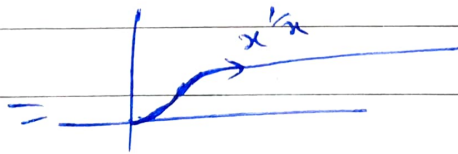


Given that $a_n = \begin{cases} \frac{n}{2^n} & ; \text{ if } n \text{ is odd} \\ \frac{1}{3^n} & ; \text{ when } n \text{ is even} \end{cases}$

$$|a_n|^{1/n} = \begin{cases} \frac{n^{1/n}}{2} & ; \text{ when } n \text{ is odd} \\ \frac{1}{3} & ; \text{ when } n \text{ is even} \end{cases}$$

$\therefore$ when n is odd then

$$(a_n)^{1/n} = \frac{n^{1/n}}{2} \quad \therefore \lim_{n \rightarrow \infty} \frac{n^{1/n}}{2} = \frac{1}{2}$$

$$\therefore x^{1/x} = \text{graph of } x^{1/x}$$


Sequence is finitely oscillates. it is not convergent