

Problem 6: Limit of a Sequence

Let $a_1 \geq a_2 \geq \cdots \geq a_k \geq 0$. Evaluate

$$\lim_{n \rightarrow \infty} (a_1^n + a_2^n + \cdots + a_k^n)^{\frac{1}{n}}$$

As always, show your work, fully explain and justify your answer.

Posting Date 4/3/2017. Submit solutions to Noah Aydin, Mathematics Department, RBH 319 (e-mail or hard-copy, but hard copy submissions must include a time stamp) by 4 pm on 4/14/17.