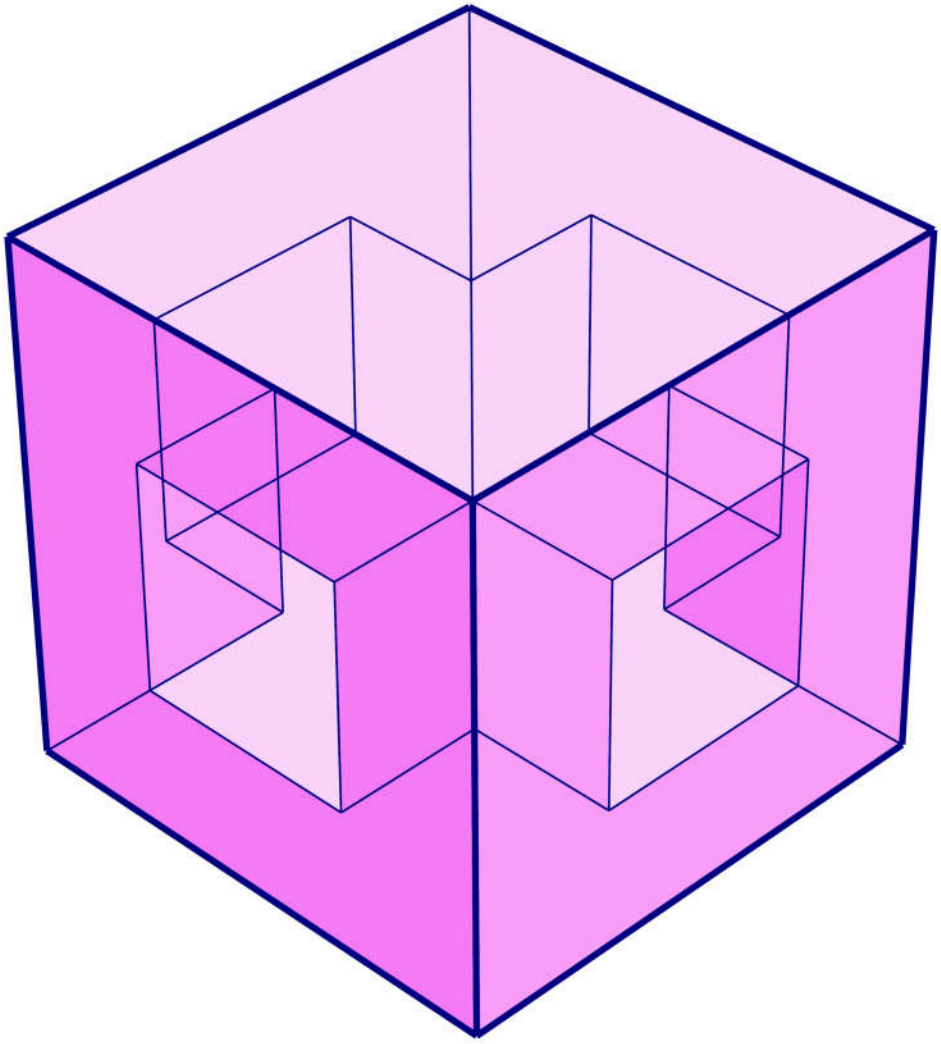

- **5417:** *Proposed by Arkady Alt, San Jose, CA*

  Prove that for any positive real number x, and for any natural number $n \geq 2$,

$$\sqrt[n]{\frac{1+x+\cdots+x^n}{n+1}} \geq \sqrt[n-1]{\frac{1+x+\cdots+x^{n-1}}{n}}.$$