
Problem of the Week — September 21, 2015

The student who submits the first correct and thoroughly-written solution will receive a \$15 gift card to the Kenyon bookstore. More importantly, you will have earned undeniable bragging rights.

PROBLEM: Show that for all positive integers n ,

$$n \left[(n+1)^{1/n} - 1 \right] \leq 1 + \frac{1}{2} + \frac{1}{3} + \cdots + \frac{1}{n} .$$

Solutions accepted until 4 pm 10/02/15

You must submit complete solutions to Brian Jones (Hayes 303) either via email or hard copy; however, if you submit a hard copy, it must have a time-stamp (i.e. either electronic proof of time printed or a faculty signature verifying the time submitted.)