



LEWIS AND CLARK COLLEGE

Department of Mathematical Sciences

PUZZLE OF THE WEEK (4/6/2016 - 4/12/2016)

Let a_1, a_2, \dots, a_n be positive numbers with $a_1 + a_2 + \dots + a_n = 1$. Find, with proof, the minimum value of

$$\sum \frac{1}{a_{i_1} + a_{i_2} + \dots + a_{i_k}}$$

where the summation goes over all choices of $i_1, i_2, \dots, i_k \in \{1, 2, \dots, n\}$ with $i_1 < i_2 < \dots < i_k$.

- The only correct solution of the Puzzle of the Week #10 was submitted by Toby Aldape. Congratulations!
- One possible solution of the Puzzle #10 is posted online. (Look for the Puzzle of the Week announcements on the departmental web-page.)
- Solvers should include their full name and some kind of a contact information. Solutions should be submitted to **Iva Stavrov** in BoDine 305; email submissions are encouraged (istavrov at lclark). Solutions should be received by the end of the day on **Tuesday, April 12th 2016**.