



Bilkent University
Department of Mathematics

PROBLEM OF THE MONTH

Term: July-August 2009

Find the maximal value of the expression

$$\frac{a_1}{a_2} + \frac{a_2}{a_3} + \cdots + \frac{a_{2008}}{a_{2009}}$$

where $a_1, a_2, \dots, a_{2009}$ are positive numbers satisfying $a_i \geq a_1 + a_2 + \cdots + a_{i-1}$ for each $2 \leq i \leq 2009$.