Bilkent University
Department of Mathematics

Problem Of The Month

Term: July-August 2007

For all positive real numbers a, b, c satisfying $a + b + c = 1$, prove the following inequality:

$$\frac{1}{ab + 2c^2 + 2c} + \frac{1}{bc + 2a^2 + 2a} + \frac{1}{ca + 2b^2 + 2b} \geq \frac{1}{ab + bc + ca}$$