

Problema săptămânii 150

Fie $a, b, c > 0$ astfel încât $a + b + c \geq 3$. Demonstrați că:

$$\frac{a}{b+c+a^2} + \frac{b}{c+a+b^2} + \frac{c}{a+b+c^2} \leq 1,$$
$$\frac{a}{b+c^2+a^3} + \frac{b}{c+a^2+b^3} + \frac{c}{a+b^2+c^3} \leq 1.$$

Problem of the week no. 150

Let $a, b, c > 0$ such that $a + b + c \geq 3$. Prove that:

$$\frac{a}{b+c+a^2} + \frac{b}{c+a+b^2} + \frac{c}{a+b+c^2} \leq 1,$$
$$\frac{a}{b+c^2+a^3} + \frac{b}{c+a^2+b^3} + \frac{c}{a+b^2+c^3} \leq 1.$$