JP.073. If $a, b, c > 0; n \geq 1$ then:

$$\frac{3n(a^4+b^4+c^4)}{(a^2+b^2+c^2)^2}+\frac{ab+bc+ca}{a^2+b^2+c^2}\geq n+1$$

Proposed by Marin Chirciu - Romania

JP.074. If $a, b, c, n > 0; n(ab+bc+ca)+2abc=n^3$ then:

$$\frac{1}{a+b+2n}+\frac{1}{b+c+2n}+\frac{1}{c+a+2n}\leq\frac{1}{n}$$

Proposed by Marin Chirciu - Romania

JP.075. Let R and r be the circumradius and the inradius of a triangle ABC respectively. Prove that

$$\csc A+\csc B+\csc C\geq 3\sqrt{3}\frac{R}{R+r}$$

Proposed by Martin Lukarevski – Stip – Macedonia