Problema săptămânii 49.
Fie numerele $x_1, x_2, x_3, x_4, x_5, x_6 \in (0, \infty)$ cu proprietatea că

$$\frac{1}{1+x_1} + \frac{1}{1+x_2} + \frac{1}{1+x_3} + \frac{1}{1+x_4} + \frac{1}{1+x_5} + \frac{1}{1+x_6} = 5.$$

Să se arate că

$$\frac{1}{1+25x_1} + \frac{1}{1+25x_2} + \frac{1}{1+25x_3} + \frac{1}{1+25x_4} + \frac{1}{1+25x_5} + \frac{1}{1+25x_6} \geq 1$$

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Problem of the week no. 49
Let $x_1, x_2, x_3, x_4, x_5, x_6$ be positive real numbers such that

$$\frac{1}{1+x_1} + \frac{1}{1+x_2} + \frac{1}{1+x_3} + \frac{1}{1+x_4} + \frac{1}{1+x_5} + \frac{1}{1+x_6} = 5.$$

Prove that

$$\frac{1}{1+25x_1} + \frac{1}{1+25x_2} + \frac{1}{1+25x_3} + \frac{1}{1+25x_4} + \frac{1}{1+25x_5} + \frac{1}{1+25x_6} \geq 1$$

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