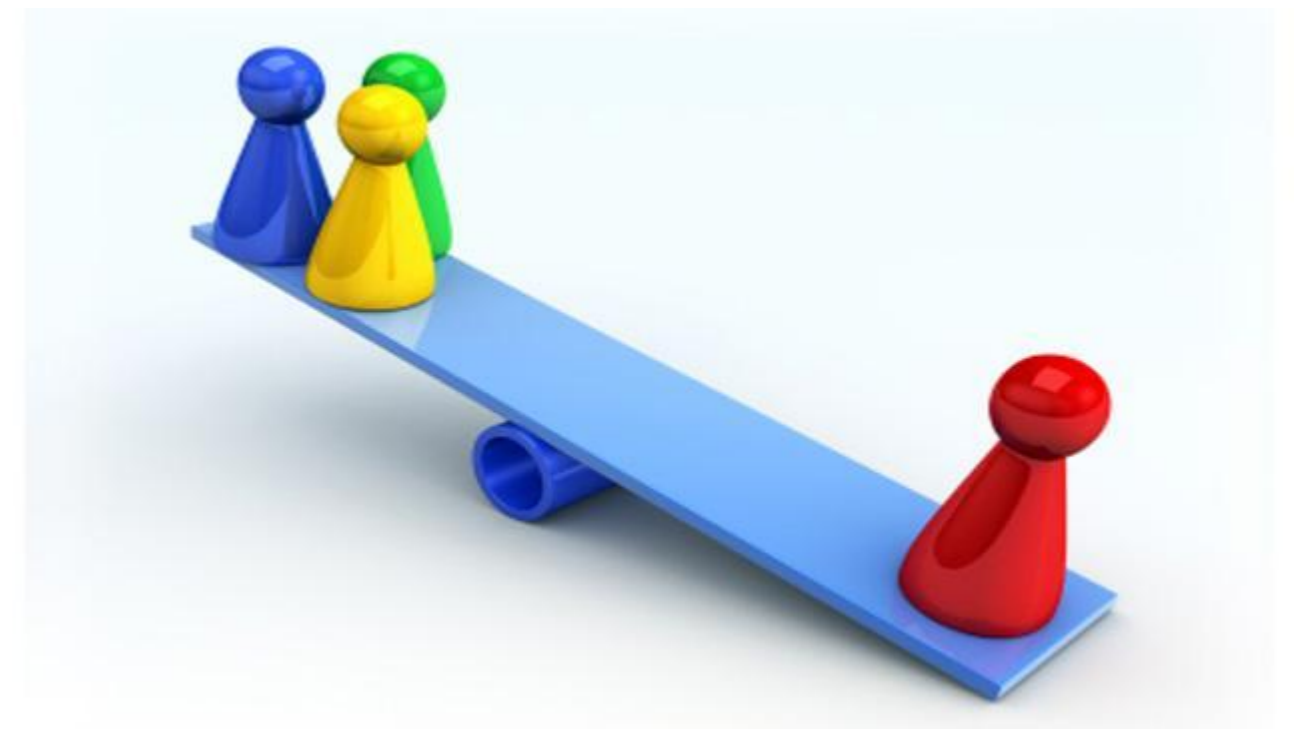


Докажите неравенство:

$$\frac{1}{1 \times 2} + \frac{1}{2 \times 3} + \frac{1}{3 \times 4} + \dots + \frac{1}{99 \times 100} < 1$$



$$\begin{aligned} \frac{1}{1 \cdot 2} &= \frac{1}{1} - \frac{1}{2} \\ \frac{1}{2 \cdot 3} &= \frac{1}{2} - \frac{1}{3} \\ \frac{1}{3 \cdot 4} &= \frac{1}{3} - \frac{1}{4} \\ &\dots \\ \frac{1}{99 \cdot 100} &= \frac{1}{99} - \frac{1}{100} \end{aligned}$$

$$1 - \frac{1}{100} = \frac{99}{100}$$