

Van-e olyan n pozitív egész szám, amelyre

$$\left(\frac{1}{\sqrt{1} + \sqrt{2}} + \frac{1}{\sqrt{2} + \sqrt{3}} + \dots + \frac{1}{\sqrt{n^2 - 1} + \sqrt{n^2}} \right) \cdot \left(\frac{1}{\sqrt{2}} + \frac{1}{\sqrt{2} + \sqrt{4}} + \dots + \frac{1}{\sqrt{n^2 - 2} + \sqrt{n^2}} \right) = 45.$$