

Problem for 2000 December

Communicated by Dan Jurca

The following problem appears in *Problems in Mathematical Analysis I* by W.J. Kaczor and M.T. Nowak.

Determine the following.

$$\lim_{n \rightarrow \infty} \frac{1}{\sqrt{n}} \left(\frac{1}{\sqrt{1}} + \frac{1}{\sqrt{2}} + \frac{1}{\sqrt{3}} + \dots + \frac{1}{\sqrt{n}} \right)$$