

Problem of the Week-7: An Infinite Sum

Find the exact value of the limit

$$\lim_{n \rightarrow \infty} \sum_{k=1}^n \frac{n}{n^2 + k^2}$$

As always, show your work and prove your answer.

Posting Date 4/13/13. Submit solutions to Noah Aydin, Mathematics Department, RBH 319 (e-mail or hard-copy, but hard copy submissions must include a time stamp) by 4 pm on 4/26/13.