

# UNDERGRADUATE PROBLEM SOLVING CONTEST

## PROBLEM 1

DUE OCTOBER 16, 2012

Compute the following sum:

$$\sqrt{1 + \frac{1}{1^2} + \frac{1}{2^2}} + \sqrt{1 + \frac{1}{2^2} + \frac{1}{3^2}} + \cdots + \sqrt{1 + \frac{1}{2011^2} + \frac{1}{2012^2}}.$$

In the spirit of UPSC, you should not use the internet or look up the solution in a book.