

Bilkent University
Department of Mathematics

## Problem Of The Month

Term: April 2007

Find all positive odd integers $n$ for which there exist odd integers $x_{1}, x_{2}, \ldots, x_{n}$ such that

$$
x_{1}^{2}+x_{2}^{2}+\cdots+x_{n}^{2}=n^{4} .
$$

