

# Problem for 2001 November

Proposed by Matthew Hubbard

Prove: If  $d$  is an odd integer greater than 5, then there exist positive integers  $a$ ,  $b$ , and  $c$  such that

$$a^2 + b^2 + c^2 = d^2.$$

You may use Lagrange's theorem, which asserts that each positive integer is the sum of not more than four squares.