### SIENA COLLEGE

**24th Annual**

### High School Programming Contest

##### April 8, 2011

###### **Problem #3: Sum of Rare Squares**

Background Information:

How often does M2 + N2 equal the concatenation of the digits of M and N?

There is at least one such M and N pair.

882 + 332 = 8833

We call such pairs “Rare Squares” and their sum “Sum of Rare Squares”.

For this problem you are to output all such pairs where M and N are positive integers

less than 10,000.

###### Programming Problem:

Input: none

Output: all pairs of M and N where M and N are rare squares and M and N are

less than 10,000. Each pair should be printed on its own line.