### SIENA COLLEGE

**25th Annual**

### High School Programming Contest

##### April 20, 2012

###### **Problem #1: Counting Triangles**

Background Information: How many triangles can be found in the following diagram?

A

B1

B11

B10

B9

B8

B7

B6

B5

B4

B2

B3

###### Programming Problem:

Input: An integer N where 1 < N < 10,000.

Output: The number of triangles in a diagram similar to the one above but

with N points along the base.

###### Example 1: Input: 2

###### Output: **1**

###### Example 2: Input: 4

###### Output: **6**