## Problem G Triangle Counting <br> Input: Standard Input <br> Output: Standard Output



You are given $\mathbf{n}$ rods of length $1,2 \ldots, \mathrm{n}$. You have to pick any 3 of them $\&$ build a triangle. How many distinct triangles can you make? Note that, two triangles will be considered different if they have at least 1 pair of arms with different length.

## Input

The input for each case will have only a single positive integer $\mathbf{n}(3<=n<=1000000)$. The end of input will be indicated by a case with $\mathbf{n}<3$. This case should not be processed.

## Output

For each test case, print the number of distinct triangles you can make.
Sample Input Output for Sample Input

| 5 | 3 |
| :--- | :--- |
| 8 | 22 |
| 0 |  |

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