Problem 12: The Great Escape

Statement

When Sirius Black escaped from the prison of Azkaban. He faced a dangerous obstacle, guardians of the prison were positioned in seperated rhombus shaped windows in front of the prison door. The global shape of those windows was a rhombus also. Sirius was hiding so he only could see the number of the windows on one side **n** (all the sides have the same number).

Your task is to help Sirius to know how much mini rhombuses were in the whole shape so he can throw a spell to take them all down.

Input

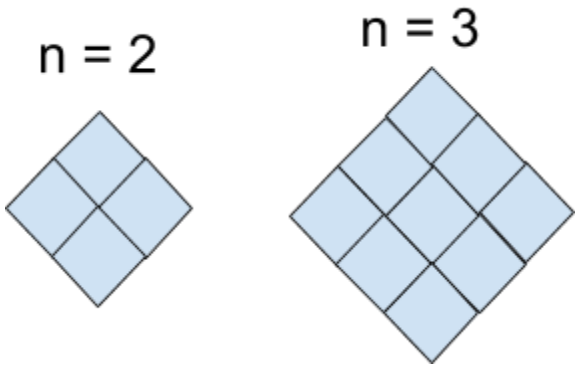
The number of windows in one side: **n (**$n < 10^3$ **)**.

Output

The global number of rhombuses.

Example

Input	Output
2	5
3	14


n = 2
n = 3