

PROBLEMS SUBMIT STATUS STANDINGS CUSTOM TEST

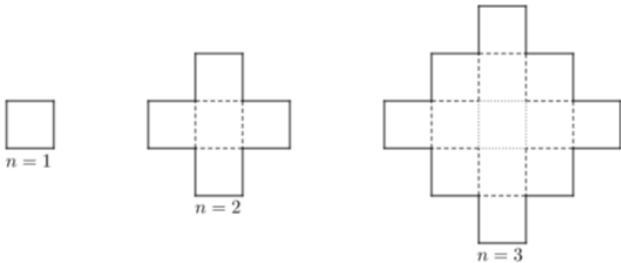
A. Alex and a Rhombus

time limit per test: 1 second
memory limit per test: 256 megabytes
input: standard input
output: standard output

While playing with geometric figures Alex has accidentally invented a concept of a *n-th order rhombus* in a cell grid.

A *1-st order rhombus* is just a square 1×1 (i.e just a cell).

A *n-th order rhombus* for all $n \geq 2$ one obtains from a $n - 1$ -th order rhombus adding all cells which have a common side with it to it (look at the picture to understand it better).



Alex asks you to compute the number of cells in a *n-th order rhombus*.

Input

The first and only input line contains integer n ($1 \leq n \leq 100$) — order of a rhombus whose numbers of cells should be computed.

Output

Print exactly one integer — the number of cells in a *n-th order rhombus*.

Examples

input	Copy
1	
output	Copy
1	
input	Copy
2	
output	Copy
5	
input	Copy
3	
output	Copy

Codeforces Round #569 (Div. 2)

Finished

Virtual participation

Virtual contest is a way to take part in past contest, as close as possible to participation on time. It is supported only ICPC mode for virtual contests. If you've seen these problems, a virtual contest is not for you - solve these problems in the archive. If you just want to solve some problem from a contest, a virtual contest is not for you - solve this problem in the archive. Never use someone else's code, read the tutorials or communicate with other person during a virtual contest.

Start virtual contest

Problem tags

dp

implementation

math

*800

No tag edit access

Contest materials

Announcement #1 (en)

Announcement #2 (ru)

Tutorial #1 (en)

Tutorial #2 (ru)

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Note

Images of rhombus corresponding to the examples are given in the statement.

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