

See Through The Lattice

LATTICE

Consider a 3-D lattice having opposite corners at $(0,0,0)$ and (n,n,n) . You have to find that how many lattice points are visible from $(0,0,0)$. A lattice point 'p' is visible from another lattice point 'q' if there is no other lattice point lies on the segment joining 'p' and 'q'.

Input

First line contains the number of test cases T and each test case consist an integer n.

$T \leq 100$ and $1 \leq n \leq 100$

Output

T lines, one corresponding to each testcase.

EXAMPLE:

Input:

4
1
4
7
25

Output:

7
91
415
14497