

4681 Visible Lattice

Consider a $N \times N \times N$ lattice. One corner is at $(0,0,0)$ and the opposite one is at (N,N,N) . How many lattice points are visible from corner at $(0,0,0)$? A point X is visible from point Y iff no other lattice point lies on the segment joining X and Y .

Input

The first line contains the number of test cases T . The next T lines contain an interger N .

Output

Output T lines, one corresponding to each test case.

Constraints:

- $T \leq 100, 1 \leq N \leq 100$

Sample Input

```
3
1
2
5
```

Sample Output

```
7
19
175
```