

The Lazy Caterer's Problem

Given an integer N , denoting the number of cuts that can be made on a pancake, find the maximum number of pieces that can be formed by making N cuts.

Input:

The first line of input contains a single integer T denoting the number of test cases. Then T test cases follow. Each test case consist of one line. The first line of each test case consists of an integer N .

Output:

Corresponding to each test case, in a new line, print the maximum number of pieces that can be formed by making N cuts .

Constraints:

$$1 \leq T \leq 100$$
$$1 \leq N \leq 1000$$

Example:

Input

2
5
3

Output

16

7