

Number of Diagonals

Given a number N. Write a program to the find number of diagonals possible in N sided convex polygon.

Input:

First line of input contains a single integer T which denotes the number of test cases. T test cases follows. First line of each test case contains a single integer N.

Output:

For each test case print number of diagonals possible in N sided convex polygon.

Constraints:

$$1 \leq T \leq 100$$

$$3 < N \leq 10^4$$

Example:

Input:

2

5

6

Output:

5

9