

Smart Series



Given an integer N, find the maximum sum that you can get from the following series: $1*2 - 2*3 + 3*4 - 4*5 \dots K*(K+1)$, where $K \leq N$.

Input Format

First line of input contains T - number of test cases. Its followed by T lines, each contains a single integer N.

Constraints

30 points

$1 \leq T \leq 100$

$1 \leq N \leq 100$

70 points

$1 \leq T \leq 10^5$

$1 \leq N \leq 10^9$

Output Format

For each test case, print the result, separated by newline.

Sample Input 0

```
2
3
5
```

Sample Output 0

```
8
18
```

Explanation 0

Self Explanatory