UVa Online Judge

10213 How Many Pieces of Land?

You are given an elliptical shaped land and you are asked to choose n arbitrary points on its boundary. Then you connect all these points with one another with straight lines (that's $n * (n-1)/2$ connections for n points). What is the maximum number of pieces of land you will get by choosing the points on the boundary carefully?

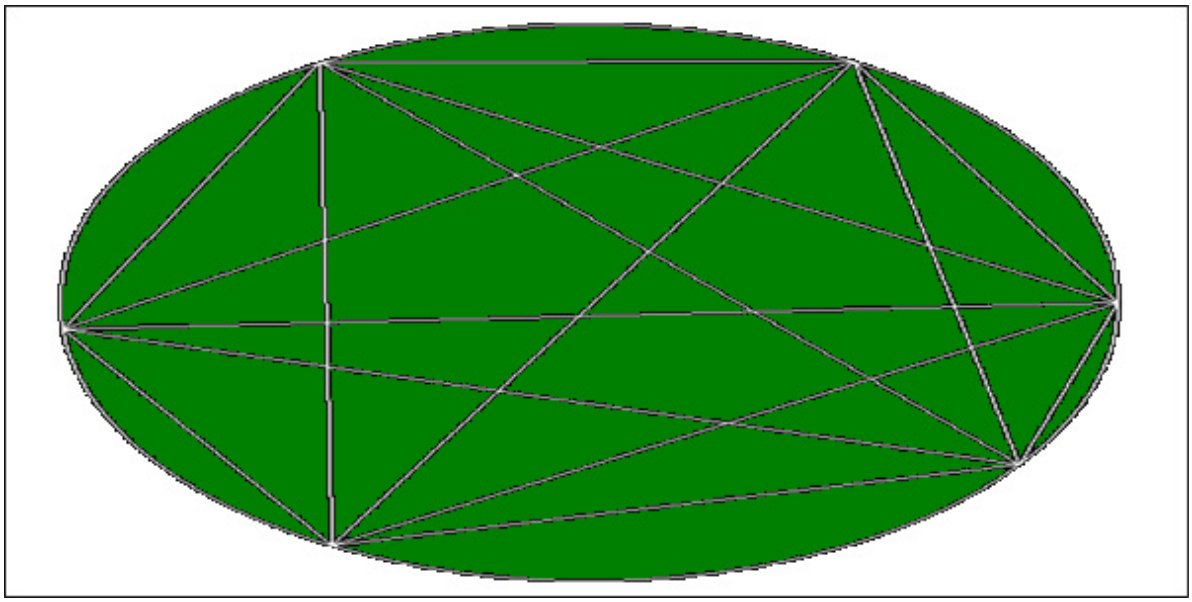

Fig: When the value of n is 6

Input

The first line of the input file contains one integer S $(0 < S < 3500)$, which indicates how many sets of input are there. The next S lines contain S sets of input. Each input contains one integer N $(0 \leq N < 2^{31})$.

Output

For each set of input you should output in a single line the maximum number pieces of land possible to get for the value of N.

Sample Input

```
4
1
2
3
4
```

Sample Output

```
1
2
4
```

```
8
```