Problem G
How Many Pieces of Land?

Input: Standard Input
Output: Standard Output
Time Limit: 3 seconds

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?
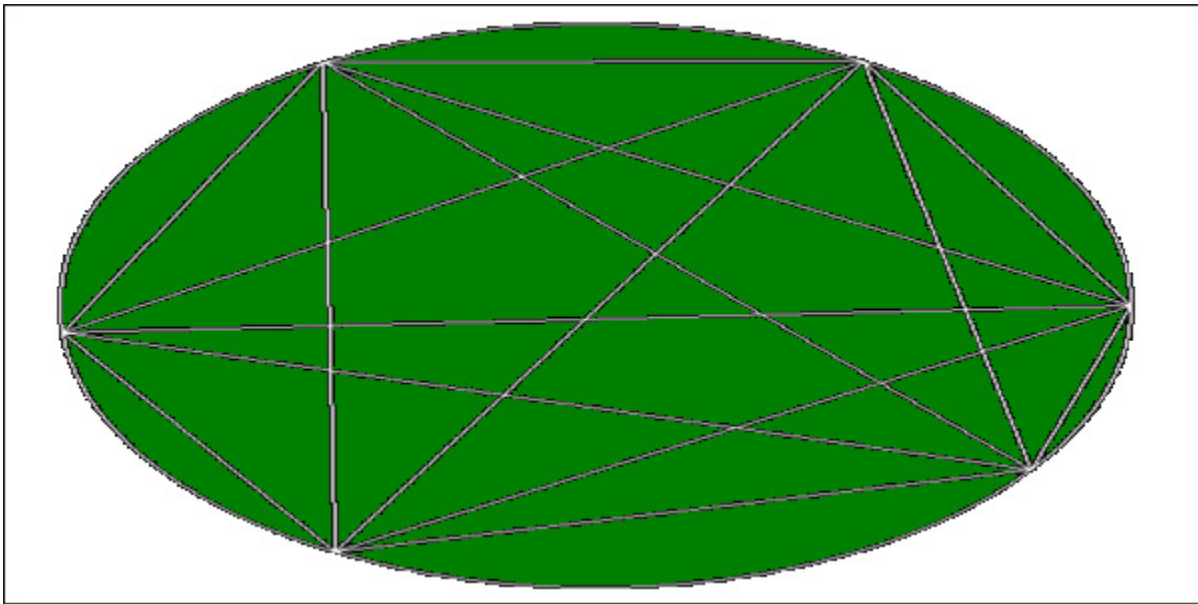

Fig: When the value of n is 6.

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<=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
```

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