UVa Online Judge

11597 Spanning Subtrees

Let K_n denote the complete undirected graph with n vertices where n is an even number. In other words, K_n is a graph with n vertices where every two vertices are connected. Your task is to find the maximum number of spanning trees of K_n that can be formed in such a way that no two of these spanning trees have a common edge.

Input

Each test case will have an even integer n ($2 \leq n \leq 400$), the number of vertices. The last test case will be followed by a single '0' denoting end of input.

Output

For each test case, print a line in the format, '`Case` X`:` Y', where X is the case number & Y is the maximum possible number of spanning trees.

Sample Input

```
4
0
```

Sample Output

```
Case 1: 2
```