

## 11069 A Graph Problem

Given an undirected graph of the following form with  $n$  nodes,  $1 \leq n \leq 76$ :



Your task is to calculate the number of subsets of nodes of the graph with the following properties:

- no nodes in the subset should be connected
- it shouldn't be possible to add further nodes to the subset without violating the first condition

For a graph with 5 nodes the number of subsets which fulfill the above conditions is 4. The subsets are  $\{1,3,5\}, \{2,4\}, \{2,5\}, \{1,4\}$ .

### Input

The input will consist of a sequence of numbers  $n$ ,  $1 \leq n \leq 76$ . Each number will be on a separate line. The input will be terminated by EOF.

### Output

Output the number of subsets as described above on a single line. The number of all subsets will be less than  $2^{31}$ .

### Sample Input

```
1
2
3
4
5
30
```

### Sample Output

```
1
2
2
3
4
4410
```