

## Problem I: Disk Madness

Time Limit: 3 seconds

### Description

Consider  $N$  disks in the plane:  $C_1, C_2, \dots, C_N$  such that, for all  $i$ , where  $0 < i < N$ , we have the center of  $C_i$  on the circumference of  $C_{i+1}$ , and the center of  $C_n$  on the circumference of  $C_1$ . What is the maximum number of pairs of disks  $(C_i, C_j)$ , with  $1 \leq i, j \leq N$  such that  $C_i$  properly contains  $C_j$ . Note, the set  $T$  properly contains, the set  $S$ , if and only if  $S \subseteq T$  and  $S \neq T$ .

### Input

A number of inputs (<1000) with integer  $N$  ( $1 \leq N \leq 1000000$ ).

### Output

Output one line per input, the answer.

### Sample Input

1  
2  
3

### Sample Output

0  
0  
1