



# Yin Yang

Time limit: 1000 ms  
Memory limit: 256 MB

Finding the perfect balance is something sought after by many people and in many ways... sometimes even in strings. We'll call a string unbalanced if it has even length and its two halves are equal. Find a string of length  $N$ , consisting only of characters  $y$  and  $Y$ , such that it has as few distinct unbalanced **substrings** as possible.

Your score per test will be computed as  $(1 + \frac{1}{10})^{-K}$ , where  $K$  is  $e^{F-O}$ ,  $O$  is the optimal number of distinct unbalanced substrings and  $F$  is the number of distinct unbalanced substrings you have obtained.

*Perfectly balanced as all things should be.*

## Standard input

The first line contains an integer  $N$ .

## Standard output

Print the answer on the first line.

## Constraints and notes

- $1 \leq N \leq 300$
- By  $e$  we mean **Euler's number**, which is  $\approx 2.718282$

Input

Output

4

yyyY