

C. Lucky Numbers

time limit per test: 0.5 seconds
 memory limit per test: 64 megabytes
 input: standard input
 output: standard output

The numbers of all offices in the new building of the Tax Office of IT City will have lucky numbers.

Lucky number is a number that consists of digits **7** and **8** only. Find the maximum number of offices in the new building of the Tax Office given that a door-plate can hold a number not longer than n digits.

Input

The only line of input contains one integer n ($1 \leq n \leq 55$) — the maximum length of a number that a door-plate can hold.

Output

Output one integer — the maximum number of offices, than can have unique lucky numbers not longer than n digits.

Examples

input
2
output
6

Experimental Educational Round: VolBIT Formulas Blitz

Finished

→ Virtual participation

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Start virtual contest

→ Problem tags

combinatorics math

No tag edit access

→ Contest materials

- Announcement 
- Tutorial 