

# I. Parking Lot

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

To quickly hire highly skilled specialists one of the new IT City companies made an unprecedented move. Every employee was granted a car, and an employee can choose one of four different car makes.

The parking lot before the office consists of one line of  $(2n - 2)$  parking spaces. Unfortunately the total number of cars is greater than the parking lot capacity. Furthermore even amount of cars of each make is greater than the amount of parking spaces! That's why there are no free spaces on the parking lot ever.

Looking on the straight line of cars the company CEO thought that parking lot would be more beautiful if it contained exactly  $n$  successive cars of the same make. Help the CEO determine the number of ways to fill the parking lot this way.

## Input

The only line of the input contains one integer  $n$  ( $3 \leq n \leq 30$ ) — the amount of successive cars of the same make.

## Output

Output one integer — the number of ways to fill the parking lot by cars of four makes using the described way.

## Examples

input	Copy
3	
output	Copy
24	

## Note

Let's denote car makes in the following way: A — Aston Martin, B — Bentley, M — Mercedes-Maybach, Z — Zaporozhets. For  $n = 3$  there are the following appropriate ways to fill the parking lot: AAAB AAAM AA AZ BBBB AMMM AZZZ BBBA BBBM BBBZ BAAA BMMM BZZZ MMMA MMBB MMMZ MAAA MBBB MZZZ ZZZA ZZZB ZZZM ZAAA ZBBB ZMMM

Originally it was planned to grant sport cars of Ferrari, Lamborghini, Maserati and Bugatti makes but this idea was renounced because it is impossible to drive these cars having small road clearance on the worn-down roads of IT City.