

## A. Arpa's hard exam and Mehrdad's naive cheat

time limit per test: 1 second  
memory limit per test: 256 megabytes  
input: standard input  
output: standard output

*There exists an island called Arpa's land, some beautiful girls live there, as ugly ones do.*

Mehrdad wants to become minister of Arpa's land. Arpa has prepared an exam. Exam has only one question, given  $n$ , print the last digit of  $1378^n$ .

Mehrdad has become quite confused and wants you to help him. Please help, although it's a naive cheat.

### Input

The single line of input contains one integer  $n$  ( $0 \leq n \leq 10^9$ ).

### Output

Print single integer — the last digit of  $1378^n$ .

### Examples

input
1
output
8

input
2
output
4

### Note

In the first example, last digit of  $1378^1 = 1378$  is 8.

In the second example, last digit of  $1378^2 = 1378 \cdot 1378 = 1898884$  is 4.