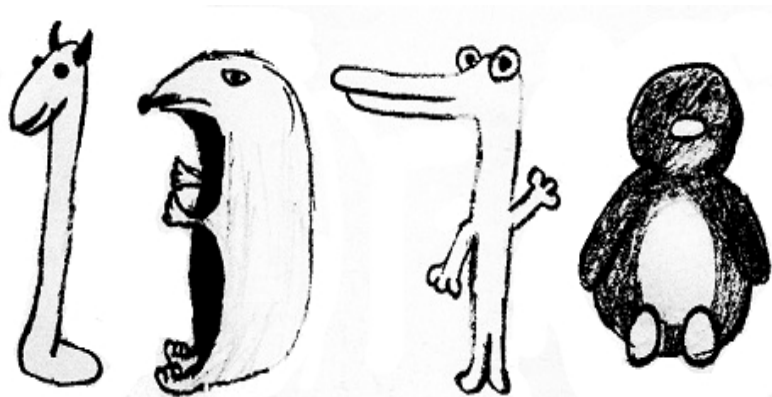


## G. Arpa's hard exam and Mehrdad's naive cheat

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

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### → About Group



Complete training for Problem solving and competitive programming.

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### → Group Contests

- Week 4 Sheet (General #1)

<b>input</b>	Copy
1	
<b>output</b>	Copy
8	

<b>input</b>	Copy
2	
<b>output</b>	Copy
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.

- Week #3 Contest
- Practice (Data types, Arithmetic operators, Conditions, Loops)
- Week 3 Sheet (Loops)
- Week #2 Contest
- Week 2 Sheet (Conditions)
- Week #1 Contest
- Week 1 Sheet (Data types, Arithmetic operators)

### Week 4 Sheet (General #1)

**Contest is running**

5 days



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