

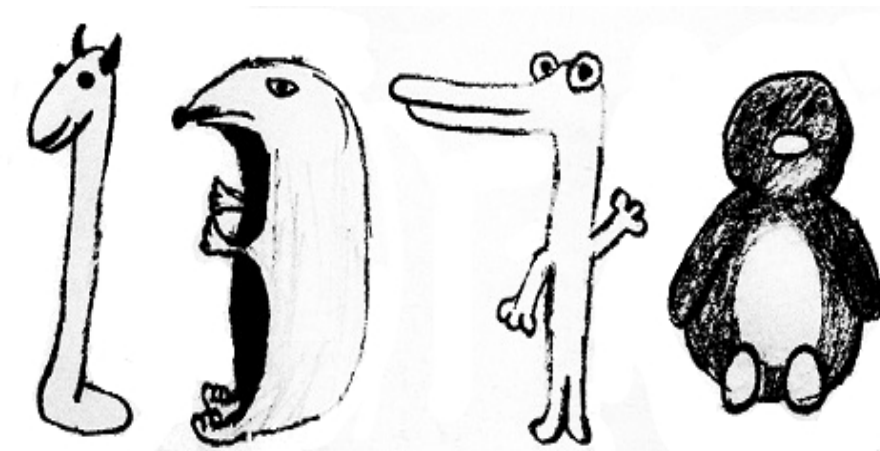
Problem A. Arpa's hard exam and Mehrdad's naive cheat

Time limit 1000 ms

Mem limit 262144 kB

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 .

Sample 1

| Input | Output |
|-------|--------|
| 1 | 8 |

Sample 2

| Input | Output |
|-------|--------|
| 2 | 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.