

A. Summer Camp

time limit per test: 1 second

memory limit per test: 256 megabytes

input: standard input

output: standard output

Every year, hundreds of people come to summer camps, they learn new algorithms and solve hard problems.

This is your first year at summer camp, and you are asked to solve the following problem. All integers starting with 1 are written in one line. The prefix of these line is "123456789101112131415...". Your task is to print the n -th digit of this string (digits are numbered starting with 1).

Input

The only line of the input contains a single integer n ($1 \leq n \leq 1000$) — the position of the digit you need to print.

Output

Print the n -th digit of the line.

Examples

input
3
output
3
input
11
output
0

Note

In the first sample the digit at position 3 is '3', as both integers 1 and 2 consist on one digit.

In the second sample, the digit at position 11 is '0', it belongs to the integer 10.

Codeforces Round #352 (Div. 2)

Finished

→ Virtual participation

Virtual contest is a way to take part in past contest, as close as possible to participation on time. It is supported only ACM-ICPC mode for virtual contests. If you've seen these problems, a virtual contest is not for you - solve these problems in the archive. If you just want to solve some problem from a contest, a virtual contest is not for you - solve this problem in the archive. Never use someone else's code, read the tutorials or communicate with other person during a virtual contest.

Start virtual contest

→ Problem tags

implementation

No tag edit access

→ Contest materials

- Tutorial