

HOME TOP CATALOG CONTESTS GYM PROBLEMSET GROUPS RATING EDU API CALENDAR HELP

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PROBLEMS SUBMIT CODE MY SUBMISSIONS STATUS HACKS STANDINGS CUSTOM INVOCATION

F. Numbers and Strings

time limit per test: 3 seconds memory limit per test: 512 megabytes

For each integer x from 1 to n, we will form the string S(x) according to the following rules:

- compute (x+1);
- write x and x+1 next to each other in the decimal system without separators and leading zeros:
- in the resulting string, sort all digits in non-decreasing order.

For example, the string S(139) is 011349 (before sorting the digits, it is 139140). The string S(99) is 00199.

Your task is to count the number of distinct strings among $S(1), S(2), \ldots, S(n)$.

Input

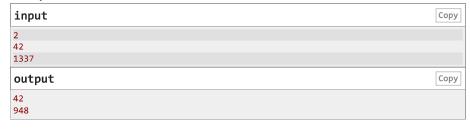
The first line contains one integer t ($1 \le t \le 10^4$) — the number of test cases.

Each test case consists of one line containing a single integer n ($1 \le n \le 10^9 - 2$).

Output

For each test case, output a single integer — the number of distinct strings among $S(1), S(2), \ldots, S(n)$.

Example



Educational Codeforces Round 178 (Rated for Div. 2)

Finished

Practice



→ 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 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

→ Clone Contest to Mashup

You can clone this contest to a mashup.

Clone Contest

→ Submit?

Language: GNU G++23 14.2 (64 bit, ms ➤

Choose File No file chosen

Submit

→ Last submissions Verdict Submission Time May/28/2025 19:25 321818877 Accepted Memory limit Apr/28/2025 317652422 exceeded on test 19:34 Memory limit exceeded on test Apr/28/2025 317650675 19:31 Time limit



Apr/28/2025 19:29

exceeded on test

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→ Contest materials

- Announcement
 - Tutorial

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The only programming contests Web 2.0 platform
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