A. Vadim's Collection

time limit per test: 1 second
memory limit per test: 256 megabytes

We call a phone number a *beautiful* if it is a string of 10 digits, where the i-th digit from the left is at least $10 - i$. That is, the first digit must be at least 9, the second at least 8, ..., with the last digit being at least 0.

For example, `9988776655` is a beautiful phone number, while `9099999999` is not, since the second digit, which is 0, is less than 8.

Vadim has a **beautiful** phone number. He wants to rearrange its digits in such a way that the result is the **smallest possible beautiful** phone number. Help Vadim solve this problem.

Please note that the phone numbers are compared as integers.

Input

Each test contains multiple test cases. The first line contains the number of test cases t ($1 \le t \le 10^4$). The description of the test cases follows.

The only line of each test case contains a single string s of length 10, consisting of digits. It is guaranteed that s is a **beautiful** phone number.

Output

For each test case, output a single string of length 10 — the smallest possible beautiful phone number that Vadim can obtain.

Example

input Copy

```
4
9999999999
9988776655
9988776650
9899999999
```

output Copy

```
9999999999
9876556789
9876567890
9899999999
```

Note

In the first test case, for the first phone number `9999999999`, regardless of the rearrangement of digits, the same phone number is obtained.

In the second test case, for the phone number `9988776655`, it can be proven that `9876556789` is the smallest phone number that can be obtained by rearranging the digits.

Codeforces Round 1021 (Div. 2)
Contest is running
02:37:45
Contestant

→ Submit?

Language: GNU G++23 14.2 (64 bit, ms
Choose file: Choose File No file chosen
Be careful: there is 50 points penalty for submission which fails the pretests or resubmission (except failure on the first test, denial of judgement or similar verdicts). "Passed pretests" submission verdict doesn't guarantee that the solution is absolutely correct and it will pass system tests.
Submit

→ Last submissions

Submission	Time	Verdict
317288332	Apr/26/2025 11:56	Pretests passed

→ Score table

	Score
Problem A	471
Problem B	1177
Problem C	1412
Problem D	2118
Problem E	2589
Problem F	3060
Successful hack	100
Unsuccessful hack	-50
Unsuccessful submission	-50
Resubmission	-50

* If you solve problem on 00:22 from the first attempt

Codeforces (c) Copyright 2010-2025 Mike Mirzayanov
The only programming contests Web 2.0 platform
Server time: Apr/26/2025 10:57:01 UTC+2 (k1).
Desktop version, switch to mobile version.
Privacy Policy | Terms and Conditions

Supported by

ITMO