**Next in Command**

Some friends are simulating what it would be like if they were in battle, and they need help deciding the chain of command! They were able to easily decide who would be the captain, but they need help deciding who will be the co-captain. By switching the digits of the captain’s points around, they can determine who will be co-captain. Do you think you can help them determine the next smallest number that can be created using the points of the captain? Keep in mind that there might not be a solution, in which case you should print out -1 instead.

**Input:** The first line of input contains **N**, the number of test cases. The next **N** lines contain one integer each.

**Output:** The next smallest number, or -1 if there is no solution.

**Example Input:**

2

531

1027

**Example Output:**

513

-1

**Explanation:** In the first test, 513 is the next smallest number you can make with the number 531. For the second test case, the next smallest would be 0721 but we don’t write numbers with leading zeros, so there is no solution to this test case.