

A. Jeff and Digits

time limit per test: 1 second

memory limit per test: 256 megabytes

input: standard input

output: standard output

Jeff's got n cards, each card contains either digit 0, or digit 5. Jeff can choose several cards and put them in a line so that he gets some number. What is the largest possible number divisible by 90 Jeff can make from the cards he's got?

Jeff must make the number without leading zero. At that, we assume that number 0 doesn't contain any leading zeroes. Jeff doesn't have to use all the cards.

Input

The first line contains integer n ($1 \leq n \leq 10^3$). The next line contains n integers a_1, a_2, \dots, a_n ($a_i = 0$ or $a_i = 5$). Number a_i represents the digit that is written on the i -th card.

Output

In a single line print the answer to the problem — the maximum number, divisible by 90. If you can't make any divisible by 90 number from the cards, print -1.

Examples

input
4 5 0 5 0
output
0
input
11 5 5 5 5 5 5 5 0 5 5
output
555555550

Note

In the first test you can make only one number that is a multiple of 90 — 0.

In the second test you can make number 555555550, it is a multiple of 90.

→ Attention

Package for this problem was not updated by the problem writer or Codeforces administration after we've upgraded the judging servers. To adjust the time limit constraint, solution execution time will be multiplied by 2. For example, if your solution works for 400 ms on judging servers, then value 800 ms will be displayed and used to determine the verdict.

Codeforces Round #204 (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

brute force implementation math

No tag edit access

→ Contest materials

- Announcement 
- Tutorial 