Magical Rearrangement

Input file:	`standard input`
Output file:	`standard output`
Time limit:	1 second
Memory limit:	256 megabytes

HoshiYo is a magician. He specializes in using magic, but he is not good at math. In the math class of the magic school, HoshiYo learns about integers. He suddenly finds something interesting: with his powerful magic, he can change an integer by rearranging its digits.

Formally, for each digit from 0 to 9, the number of digits i is a_i. HoshiYo wants to get an integer that meets the following rules:

- All the given digits are used.
- There is no leading zero except for 0 itself.
- Adjacent digits cannot be the same.

HoshiYo wonders what's the minimum integer he can get with these digits.

Input

The first line of each test case contains an integer T ($1 \le T \le 10^4$), indicating the number of test cases.

Each test case contains 10 integers $a_0, a_1, \ldots, a_9$ ($0 \le a_i \le 10^5$), indicating the number of different digits. Let $n = \sum_{i=0}^{9} a_i$. It's guaranteed that $1 \le n \le 10^5$.

It's also guaranteed that the sum of n over all test cases will not exceed 10^5.

Output

For each test case, output the minimum integer HoshiYo can get in a single line. If there's no solution, output -1 in a single line.

Example

standard input	standard output
3 0 0 1 0 0 0 0 0 0 2 2 0 1 0 0 1 0 2 0 0 3 0 1 0 0 0 0 0 0 0	929 205707 -1