



HOME CONTESTS GYM PROBLEMSET GROUPS RATING API CANADA CUP 🛣 SECTIONS

PROBLEMS SUBMIT STATUS STANDINGS CUSTOM TEST

A. Xenia and Divisors

time limit per test: 1 second memory limit per test: 256 megabytes input: standard input output: standard output

Xenia the mathematician has a sequence consisting of n (n is divisible by 3) positive integers, each of them is at most 7. She wants to split the sequence into groups of three so that for each group of three a, b, c the following conditions held:

- a < b < c:
- a divides b, b divides c.

Naturally, Xenia wants each element of the sequence to belong to exactly one group of three. Thus, if the required partition exists, then it has groups of three.

Help Xenia, find the required partition or else say that it doesn't exist.

Input

The first line contains integer n ($3 \le n \le 99999$) — the number of elements in the sequence. The next line contains n positive integers, each of them is at most 7.

It is guaranteed that n is divisible by 3.

Output

If the required partition exists, print groups of three. Print each group as values of the elements it contains. You should print values in increasing order. Separate the groups and integers in groups by whitespaces. If there are multiple solutions, you can print any of them.

If there is no solution, print -1.

Examples

124 126

input	
6 111222	
output	
-1	
input	
6 221146	

Codeforces Round #199 (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 (greedy) (implementation) No tag edit access

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