ICPC Assiut University Community

Newcomers Training , Do Your Best

HOME TOP CATALOG CONTESTS GYM PROBLEMSET GROUPS RATING EDU API CALENDAR HELP

PROBLEMS SUBMIT CODE MY SUBMISSIONS STATUS STANDINGS CUSTOM INVOCATION

X. Strange Addition

time limit per test: 2 seconds memory limit per test: 256 megabytes input: standard input output: standard output

Unfortunately, Vasya can only sum pairs of integers (a, b), such that for any decimal place at least one number has digit 0 in this place. For example, Vasya can sum numbers 505 and 50, but he cannot sum 1 and 4.

Vasya has a set of k distinct non-negative integers $d_1, d_2, ..., d_k$.

Vasya wants to choose some integers from this set so that he could sum any two chosen numbers. What maximal number of integers can he choose in the required manner?

Input

The first input line contains integer k ($1 \le k \le 100$) — the number of integers.

The second line contains k distinct space-separated integers $d_1, d_2, ..., d_k$ ($0 \le d_i \le 100$).

Output

In the first line print a single integer n the maximum number of the chosen integers. In the second line print n distinct non-negative integers — the required integers.

If there are multiple solutions, print any of them. You can print the numbers in any order.

Examples

input	Сору
4	
100 10 1 0	
output	Сору
4	
0 1 10 100	
input	Сору
3	
2 70 3	
output	Сору
2	
2 70	

→ Attention

The 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, a solution execution time will be multiplied by 2. For example, if your solution works for 400 ms on judging servers, then the value 800 ms will be displayed and used to determine the verdict.

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Public

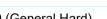
Participant



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- Sheet #9 (General medium)
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- Sheet #6 (Math Geometry)
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- Contest #3.1
- Sheet #3 (Arrays)
- Contest #2
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- Contest #1
- Sheet #1 (Data type Conditions)

Sheet #10 (General Hard)

Finished