CON_ARRAY_Level2_019

Given an array that has positive numbers and negative numbers and zero in it. You need to separate the negative numbers and positive numbers in such a way that negative numbers lies to left of zero and positive numbers to the right and the original order of elements should be maintained.

Input Format

Each line contains the array size & values

Constraints

 $1 \le \text{array size} \le 10000$

Output Format

print the altered array

Sample Input 0

5 98 -54 122 87 0

Sample Output 0

-54 0 98 122 87