Best balanced diet

Nutritionists have been struggling since a long time to determine what would constitute the best balance diet. You are famous for your fine programming skills, and hence as a test to prove your talent, you take up this challenge. You are given the nutrition value of all the possible items for producing the best balanced diet. Your task is to figure out which of these items to use and which to remove to produce the best balanced diet.

Input

The first line contains the number of items E. The next line contains E space separated integers, the actual nutrition value of each of the items. Value of E <= 10. Each nutrition value is in the range of [-2^31, 2^31).

Output

Output a single line in the following format "S N1 N2 .. NS", where S is the number of items in the best balanced diet, and N1, .., NS are the nutrition values of each of these items.

Example

Input:
4
-4 0 4 1

Output:
2 4 1