

PRACTICE

COMPETE

IOBS

LEADERBOARD







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Divisors of Two Integers 1



Problem

Submissions

Leaderboard

Recently you have received two positive integer numbers **x** and **y**. You forgot them, but you remembered a shuffled list containing all divisors of **x** (including **1** and **x**) and all divisors of **y** (including **1** and **y**). If **d** is a divisor of both numbers **x** and **y** at the same time, there are two occurrences of **d** in the list.

For example, if x=4 and y=6 then the given list can be any permutation of the list [1,2,4,1,2,3,6]. Some of the possible lists are: [1,1,2,4,6,3,2], [4,6,1,1,2,3,2] or [1,6,3,2,4,1,2].

Your problem is to restore suitable positive integer numbers **x** and **y** that would yield the same list of divisors (possibly in different order).

It is guaranteed that the answer exists, i.e. the given list of divisors corresponds to some positive integers x and y.

Input Format

The first line contains one integer n ($2 \le n \le 128$) — the number of divisors of x and y. The second line of the input contains n integers $d_1, d_2, ..., d_n$ ($1 \le d_i \le 10^4$), where d_i is either divisor of x or divisor of y. If a number is divisor of both numbers x and y then there are two copies of this number in the list.

Constraints

 $2 \le n \le 128$ $1 \le d_i \le 10^4$

Output Format

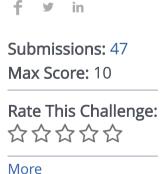
Print two positive integer numbers x and y — such numbers that merged list of their divisors is the permutation of the given list of integers. It is guaranteed that the answer exists

Sample Input 0

10 10 2 8 1 2 4 1 20 4 5

Sample Output 0

20 8



```
import math
   n = int(input())
   arr = [int(x) for x in input().split()]
   l = len(arr)
   arr.sort()
   P = arr[l-1]
   divOfP = []
   r = int(math.sqrt(P))+1
10 \forall for i in range(1,r):
       if P % i == 0:
           if i*i == P:
12 ₹
13
                divOfP.append(i)
        else:
14 ▼
15
                divOfP.append(i)
                divOfP.append(P//i)
16
17 √for x in divOfP:
       arr.remove(x)
19 | l = len(arr)
20 vif l == 0:
       P = 0
22 ▼else:
23
       arr.sort()
       Q = arr[l-1]
24
25
   print (P,Q)
   div0fP.clear()
   arr.clear()
27
```

Line: 27 Col: 12

<u>Lupload Code as File</u> Test against custom input

Run Code

Submit Code

Testcase 0 ✓

Congratulations, you passed the sample test case.

Click the **Submit Code** button to run your code against all the test cases.

Input (stdin)

10 10 2 8 1 2 4 1 20 4 5

Your Output (stdout)

20 8

Expected Output

20 8

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