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DAY HRS MIN SEC

June Circuits '18

LIVE

Jun 16, 2018, 09:00 PM IST - Jun 25, 2018, 09:00 PM IST

INSTRUCTIONS PROBLEMS SUBMISSIONS LEADERBOARD ANALYTICS JUDGE

← Problems / Find the subset

Find the subset

Max. Marks: 100

Define the ugliness of a **set** T as the number of unordered pairs (x,y) such that $x,y \in T$ and x+y>D. Given a set S of length M, find the lexicographic minimal subset of S of length N such that the ugliness of this subset is minimal.

Suppose we have two different sets A and B of length K with elements $a_1 < a_2 < \cdots < a_K$ and $b_1 < b_2 < \cdots < b_K$ respectively. We say that A is lexicographically smaller than B if there exist i such that $a_i = b_i$ for $1 \le j < i$ and $a_i < b_i$.

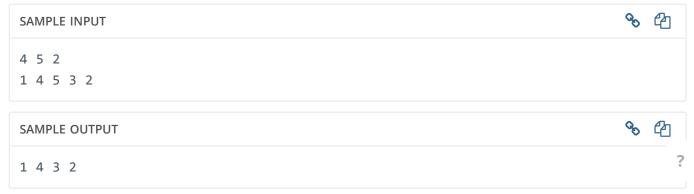
Input

The first line contains three integers N, M, D ($1 \le N \le M \le 10^5, 1 \le D \le 10^9$).

The second line contains M distinct integers representing the set S. All elements of S are between S and S (inclusive).

Ouput

Output the subset of minimal ugliness in the order given in input. Because all elements are distinct there will always be only one way of printing them.



Explanation The ugliness of this subset is equal to 9, the pairs are (2,3), (3,4), (2,4), (2,2), (3,3), (4,4), (1,2), (1,3), (1,4). Time Limit: 2.0 sec(s) for each input file. Memory Limit: 256 MB Source Limit: 1024 KB Marking Scheme: Marks are awarded if any testcase passes. Allowed Languages: C, C++, C++14, Clojure, C#, D, Erlang, F#, Go, Groovy, Haskell, Java, Java 8, JavaScript(Rhino), JavaScript(Node.js), Julia, Kotlin, Lisp, Lisp (SBCL), Lua, Objective-C, OCaml, Octave, Pascal, Perl, PHP, Python, Python, Python 3, R(RScript), Racket, Ruby, Rust, Scala, Swift, Swift-4.1, Visual Basic

CODE EDITOR

```
Enter your code or Upload your code as file.
                                              Save
                                                     Java 8 (oracle 1.8.0_131)
 1
    import java.io.BufferedReader;
    import java.io.IOException;
    import java.io.InputStreamReader;
    import java.util.ArrayList;
 5
    import java.util.Collections;
 6
 7
    public class Set1 {
 8
        public static void main(String[] args) throws IOException {
 9
10
            BufferedReader br = new BufferedReader(new InputStreamReader(System.in));
11
12
            String yyy = br.readLine();
13
14
            String data [] = yyy.trim().split("\\s{1,}");
15
16
            if(data.length==3) {
17
                int N = Integer.parseInt(data[0]); // output array length
18
                int M = Integer.parseInt(data[1]); // input array length
19
20
                int D = Integer.parseInt(data[2]); // sum
21
22
                //(x,y) E T
23
                // x + y > D
                String xxxx [] = br.readLine().trim().split("\\s{1,}");
24
25
26
                ArrayList<Integer> inputArray = new ArrayList<>();
27
                for(int iCount = 0; iCount<xxxx.length;iCount++) {</pre>
28
                                                                                       ?
29
                     if(xxxx[iCount].trim().length()!=0) {
                         inputArray.add(Integer.parseInt(xxxx[iCount].trim()));
```

```
31
32
                 }
33
34
                 if(M >=N && inputArray.size() == M) {
                     int max = Collections.max(inputArray);
35
                     int diff = M-N;
36
37
                     for(int x=0; x<diff; x++) {</pre>
38
39
                          inputArray.remove(inputArray.indexOf(max));
40
```

■ Provide custom input

COMPILE & TEST

SUBMIT

Tip: You can submit any number of times you want. Your best submission is considered for computing total score.

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