## **Problem 1:**

In a contest where N new users visited the contest,

- \* A user just saw the problems and didn't make any submissions and hence wont't get any rating.
- \*B user who made a submission but could not solve any problem correctly thus ,After the contest ,They will get a rating in the range 800-1000
- \*Every one else Could Correctly solve at least 1 problem. Thus ,They will get a rating strictly greater than 1000 after the contest.

You need to output the number of new users in the contest who, after the contest , will get a rating and also the number of new users who will get a rating strictly greater than 1000.

# Input: 10 3 2 Output: 7 5

## **Problem 2:**

Ravi took an Examination two times .In the First attempt he scored x marks while in the second attempt he scored y marks .According to the rules of the Examination ,The best score out of the two attempts will be considered as the final score .Determine the score of the x.

# **Sample Input:**

4

40 60

67 55

50 40

1 100

## **Output:**

**60** 

**67** 

50

100

## **Problem 3:**

## **Secure Password:**

The security agency is handling a space project ,for the security purpose Every time a new password has to be generated , we need to examine whether the password is safe or not based on certain conditions Conditions: minimum 1 Capital, 1 Small, 1 Digit Lemgth 8

## **Problem 4:**

## Numbers with digits in increasing order of given N

Given an integer **N**, print all the **N** digit numbers in increasing order, such that their digits are in strictly increasing order(from left to right).

Note: N value will be less than 10.

Sample Input 1:

**N** = 1 **Output:** 

0123456789

**Explanation:** 

Single digit numbers are considered to bestrictly increasing order.

# Sample Input 2:

N = 2

Output: 12 13 14 15 16 17 18 19 23....79 89

**Explanation:** 

For N = 2, the correct sequence is 12 13 14 15 16 17 18 19 23 and so on upto 89.

#### Problem 5:

## **Super Market**

Bill the CEO of Tidal Mart is exited about the fact that his Shopping Mart is turning 10. In order to show his customers how much he appreciates his regular customers, he decide to give them all a special coupon code that will allow them to get 50% off on an item of their choice. Help Bill write a code that will identify his frequent shoppers and reward them accordingly. If some customers has equal number of visits pick the biggest id customer.

# **Input Format:**

First line contains numbers of customers visited as N. Second line contains N space separated customer ids as L. Third line contains Number of customers required R.

## **Output Format:**

Display the Required customers based on the condition mentioned.

## **Sample Test Case:**

## Input:

13 1 2 3 4 5 6 7 7 5 4 5 4 3 4

# Output:

5 4 7 3

**Explanation**: 3 4 5 7 are the top 4 visited customers ids, id 4,5 visited 3 times each but id 5 is bigger so given priority in the same way id 3 and 7 will be arranged as 7,3

# **Super Market 2**

When Bill proposed this idea to his marketing supervisor Becky, Becky suggested that Bill announces some special discounts to attract rarely (one time only) visited customers. Bill is delighted with this idea and needs help writing a code to notify potentially rarely(one time only) customers that they would get 10% off on their bill of they shop on the anniversary day. If no such customers return -1

## **Input Format:**

First line contains the no of customers visited N. Second line contains each and every customers ids in a single line separated by spaces.

## **Output Format:**

Display the rarely (one time only) visited customers ids in a single line.

**Sample Test Case:** 

Input:

13

123457754543

## **Output:**

## **Explanation:**

1 2 3 4 7 7 5 4 5 4 3 are the following customers ids 1 2 are just visited only one time.

## **Problem 6:**

# **Galaxy**

A father has decided to spend the evening on the terrace with this kid watching stars, they notice some stars are brighter than the others.

Help them draw a pattern by identifying and connecting the brightest starts Remove this, and Enter the Program Description here.

Input is n based on the n value print stars n=3 OUTPUT:

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## Problem2:

Try to print this new pattern

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## Problem 7:

## Hunting

Problem1. Tom is an individual who is passionate about hunting. He has been allowed into a hunting park which only allows five shots per person.

He has been provided with bullets that are designed to travel a distance of [2.5,1.2,5.3,4]. On his first-round through the park, he has noticed that there are birds sitting [3.1,2,3,2.2] meters away from him. Help Tom utilize his bullets efficiently so that he can hit as many birds as possible.

## Problem2

Tom has a dog Figo who follows him everywhere he goes. Figo has been trained to swim and retrieve the birds that have been shot.

If Figo can only swim 5 meters each side, and the birds have fallen[2.3,5.3,4,6.7]meters apart, how many birds can he retrieve?

# **Problem 8:**

# **Budget**

Raju is a middle-class person, so he has fixed his monthly budget of 5000 rupees, he went to the supermarket and pick some groceries into his cart, but at the time billing, the amount exceeds his budget, so he has to remove some items from a cart in order to get his billing near to 5000 or maximum 5000, then find billing amount by removing some high valued item/items.