

Problem Statement 1

Given an array `arr[]`, the task is to find the count of array elements whose squares are already present in the array.

Examples:

- Input: `arr[] = 2, 4, 5, 20, 16`
 - Output: 2
 - Explanation: 2, 4 has their squares 4, 16 present in the array.
- Input: `arr[] = 1, 30, 3, 8, 64`
 - Output: 2
 - Explanation: 1, 8 has their squares 1, 64 present in the array.

Problem Statement 2

Given an array `arr[]` of size N, the task is to find the largest non-repeating element present in the given array. If no such element exists, then print -1.

Examples:

- Input: `arr[] = 3, 1, 8, 8, 4`
 - Output: 4
 - Explanation: Non-repeating elements of the given array are 1, 3, 4
 - Therefore, the largest non-repeating element of the given array is 4.
- Input: `arr[] = 3, 1, 8, 8, 3`
 - Output: 1
 - Explanation: Non-repeating elements of the given array are 1
 - Therefore, the largest non-repeating element of the given array is 1.

Problem Statement 3

Given a string `s`, find the length of the longest sub-string without repeating characters.

Examples:

- Input: `s = "abcabcbb"`
 - Output: 3
 - Explanation: The answer is "abc", with the length of 3.
- Input: `s = "bbbbbb"`
 - Output: 1
 - Explanation: The answer is "b", with the length of 1.

Constraints:

- $0 \leq s.length \leq 5 * 10^4$
- `s` consists of English letters, digits, symbols and spaces.

Problem Statement 4

If an integer N, Write a program to reverse the given number

Examples:

1.
 - Input:
4
12345
31203
2123
2300
 - Output:
45321
30213
3212
32
 - Explanation: Here in the input, The first line contains an integer T, Total number test cases. Then follows T lines, each line contains an integer N. In the output we are displaying the reverse of the given number N.

Constraints:

- $1 \leq T \leq 1000$
- $1 \leq N \leq 1000000$

Problem Statement 5

There are three numbers as inputs i.e A,B and C. Write a program to find second largest among three numbers.

Examples:

1.
 - Input:
3
120 11 400
10213 312 10
10 3 450
 - Output:
120
312
10
 - Explanation: Here in the input, The first line contains an integer T, Total number test cases. Then follows T lines, each line contains three integers A,B and C. In the output we are displaying the second largest among A,B and c.

Constraints:

- $1 \leq T \leq 1000$
- $1 \leq A, B, C \leq 1000000$

Problem Statement 6

Consider a currency system in which there are notes of six types namely, Rs 1, Rs 2, Rs 5, Rs 10, Rs 50, Rs 100. If the sum of Rs N is input, Write a program to compute smallest number of notes that will combine to give Rs N.

Examples:

1.
 - Input:
3
1200
500
242

- Output:

12

5

7

- Explanation: The first line of input contains an integer T , total number of test cases. Then follows T lines, each line contains an integer N . Here in the output, we are displaying the smallest number of notes that will combine to give N .

Constraints:

- $1 \leq T \leq 1000$
- $1 \leq N \leq 1000000$