Link to Contest:

https://vjudge.net/contest/367935#overview
Password: rccacm

Problem A:

- Tanya and Stairways
https://codeforces.com/problemset/problem/1005/A

- Create a vector that stores all of the stairways. Now traverse the array and whenever you get a 1 in the array (with the exception of the first one) add the previous element in the array to your vector. This is because 1 marks the start of a new staircase and adding the previous element will give you the number of steps in the staircase that just finished. Make sure that you add a[n-1] after you traverse the array because there will not be a 1 after the final staircase.

Problem B:

- From Hero To Zero
https://codeforces.com/problemset/problem/1175/A

- If the number is divisible by k, then divide it by k and add one to your answer. Otherwise, you have to subtract n%k and add n%k to your answer. This is required because if you simply decrease the value of n by one each time you will receive time limit exceeded. The given n can be up to 10^18 which does not fall in the time limit if you subtract 1 each time instead of modding k.

Problem C:

- Bad Prices
https://codeforces.com/problemset/problem/1213/B

- Keep track of the smallest element you reach as you traverse the array from right to left, let's call this the currentMinimum. Start the currentMinimum as a value larger than any of the array elements can reach (I used 10e10). When traversing the array from right to left,

if array[i] is greater than the current minimum, then we increase our answer by one. After checking if array [i] is greater, we update our currentMinimum by taking
currentMinimum = min (currentMinimum, array[i].

Problem D:

- New Year and North Pole

https://codeforces.com/problemset/problem/750/B

- Mark the North Pole as 0, and the South Pole as 20000. Note that we can completely ignore any directions going west or east as they do not affect our longitude. Now we have to check that our directions are valid. If we are at the the North Pole (location = 0) then we must make sure that they entered South, if we are at the South Pole (location 20000) then make sure they entered North. Keep track of your current location using a variable, let's call it x. If the direction given is 'South' then I added to x, if the direction given is 'North' then I subtracted from x. Make sure to check that x is never below 0 or above 20000. After looping through all directions, make sure that we end at 0.

Problem E:

- ConneR and the A.R.C. Markland-N

https://codeforces.com/problemset/problem/1293/A

- This is a tricky problem. There are 10^9 total floors in the building but we will get time limit exceeded if we check all of them. You need to notice that at most, there can only be 1000 closed restaurants in the building. Therefore the solution that meets the time requirement is to only check 1000 floors below where he is and 1000 floors above and then find the closest open floor.

Problem F:

- Longest Palindrome

https://codeforces.com/problemset/problem/1304/B

- Note that all the strings are guaranteed to be the same length. We first start by looking for any palindrome in the list given to us. If we find a palindrome, then the center of our answer will be that palindrome, because we can add strings to the beginning or end and have it still be a palindrome. If we do not find a palindrome in the list, then our answer will start as empty. Now add every string into a set. For every string, check if the reverse of it is in our set, if it is then we add one to the front and the other to the back. Make sure to remove both from the set afterwards so that you don't end up using them twice.