**Hello, I am AlexandruINV and this is my journey to being red starting from 1600, Enjoy!**

**Post-Problem Evaluation System (0–100 score)**

After solving each problem, assign a score out of 100 based on three components:

**1. How much of the solution you figured out yourself (max 50 pts)**

| **Situation** | **Score** |
| --- | --- |
| Solved completely on your own | 50 |
| Solved ~80% but made a small mistake | 40 |
| Got the main idea, but couldn’t implement | 30 |
| Needed a small hint from editorial | 20 |
| Didn’t solve, but understood after editorial | 10 |
| Still didn’t fully understand after editorial | 0 |

-10 points if I look at the tests where I was wrong

**2. Time taken to reach your best solution (max 40 pts)**

| **Time spent (including thinking + coding)** | **Score** |
| --- | --- |
| <15 minutes | 40 |
| 15–30 minutes | 30 |
| 30–40 minutes  40-50 minutes | 20  15 |
| >50 minutes | 10 |
| Couldn’t solve it | 0 |

**3. Time to understand editorial (max 10 pts)**

| **Editorial understanding time** | **Score** |
| --- | --- |
| Understood fully in <10 min | 10 |
| Understood in 10–20 min | 7 |
| Took more than 20 min to fully understand | 3 |
| Still unclear after reading | 0 |

Day 1: 13/04/2025 -> Unrated

I participated in <https://codeforces.com/contest/2094> (Div4) and solved 6/8 problems with place 571. I almost solved the 7th one so I will probably upsolve it tomorrow

Day 2: 14/04/2025 -> Unrated

Solved <https://codeforces.com/contest/1253/problem/D> (1700 difficulty). After 27 minutes I made a wrong submission with DSU (Time limit exceed on test 9) then a wrong intervals approach after 55 minutes and after 1 hour and 1 minute I finally found the intended solution with intersecting intervals.. Nothing new to learn but I was painfully slow..

Score: 50 + 10 + 10 -> 70 points

Solved <https://codeforces.com/problemset/problem/1228/C> (1700 difficulty). Solved it in 15 minutes, nice number theory problem, didn’t feel like I can learn something new from it

Score: 50 + 30 + 10 -> 90 points

Day 3: 16/04/2025 -> Unrated

I upsolved <https://codeforces.com/contest/2094/problem/G> from last DIV4 in 16 minutes just to realize that I was missing the reverse case where I just had to revert the “reversed” Boolean… It worked first try. I am frustrated I didn’t finish this in time in the contest. I spent 25 more minutes on another solution that uses only one deque instead of 2.

Score: 50 + 10 + 3 -> 63 points

I tried to solve <https://codeforces.com/problemset/problem/1209/D> (1700) for 50 minutes but no success. I think I got a few ideas but apparently I overcomplicated it.. I stayed 45 more minutes to understand the tutorial because it was poor written but I understood the DSU solution and DFS solution. Both are easy if you think in that direction.. my bad, I feel so stupid sometimes.

Score: 10 + 0 + 3 -> 13 points

I solved <https://codeforces.com/problemset/problem/1312/D> (1700) in about 40 minutes with a little help from editorial but once I got the main idea it was really easy. I made the mistake to think about taking with combinations after having the max element selected which is stupid..

Score: 20 + 0 + 10 -> 30 points

Day 4: 17/04/2025 -> Unrated

I solved <https://codeforces.com/contest/1625/problem/C> (1700) in 1 hour with O(n^3) solution using dp which was actually the intended solution. I thought I overcomplicated it. At first I did a O(n^2) solution but it was wrong on test 8 and I managed to understand why.

Score: 50 + 10 + 10 -> 70 points

I solved <https://codeforces.com/problemset/problem/1731/C> (1700) in 28 minutes with the intended solution. Reminder for myself that I always need to increase ap[0] to also count the whole prefix as xor or sum of prefixes, not just previous values.

Score: 50 + 30 + 10 -> 90 points

I solved <https://codeforces.com/contest/1829/problem/H> (1700) in 45 minutes. I complicated the solution with a dp with 6 dimensions, one for each bit instead of actually going through the numbers from 0 to 63.. fuck me… But.. I solved it alone and fully and after 1 minute on editorial I also implemented the easier solution so that’s great.

Score: 50 + 20 + 10 -> 80 points

Day 5: 18/04/2025 -> Unrated

I solved <https://codeforces.com/problemset/problem/1474/C> (1700) in 35 minutes. Pretty easy problem once I saw the bruteforce idea so that’s cool.

Score: 50 + 20 + 10 -> 80 points

I solved <https://codeforces.com/problemset/problem/1883/E> (1700) in 28 minutes. Really nice idea but nothing new to it.

Score: 50 + 30 + 10 -> 90 points

I tried to solve <https://codeforces.com/contest/1598/problem/D> (1700). I got some ideas right but totally missed the intended solution and I couldn’t do it. Cool trick to actually isolate the pairs. Tip for future: “Pay more attention to specific constraints, they probably are there for a reason”).

Score: 10 + 0 + 10 -> 20 points

Day 6: 19/04/2025 -> Unrated

I tried to solve <https://codeforces.com/problemset/problem/1537/D> (1700).. It was based on a really specific number theory link of thoughts and unfortunately I didn’t get it… Understood it after with editorial but damn..

Score: 10 + 0 + 10 -> 20 points

I solved <https://codeforces.com/problemset/problem/915/C> (1700) in 28 minutes, pretty easy greedy problem I would say.

Score: 50 + 30 + 10 -> 90 points

I solved <https://codeforces.com/problemset/problem/960/C> (1700) in 13 minutes. Nice problem with bits, kinda easy though.. I feel very good when I solve these so fast

Score: 50 + 40 + 10 -> 100 points

I solved <https://codeforces.com/problemset/problem/1176/E> (1700) in 20 minutes. Really nice graph problem. I really wonder if the problems I chose are actually really easy or I am getting better in just a few days (probably not), lol.

Score: 50 + 30 + 10 -> 90 points

I participated in <https://codeforces.com/contest/2096> (Div1 + Div2) and I took place 2911. A bad result in my opinion considering I spent 23 minutes on problem A which was actually easy……… I have 980 rating points now. Will upsolve D and E soon

Day 7: 20/04/2025 -> Unrated

I upsolved problem <https://codeforces.com/contest/2096/problem/D> . It was a nice problem with a nice click.. What I think I should do more from now and actually try to see parity relations between coordinates on problems with cartesian points. Also.. I shouldn’t really stay to much wondering with random ideas, this is what I discovered. More on practical thoughts. Problems at this level are not so adhoc as they seem.

I upsolved <https://codeforces.com/contest/2096/problem/E> . I approached it with a greedy but working in my opinion solution. Still, no success on it on test 2 at test case 840+ so fuck me.. Then I really got deep into editorial and it was beautiful to see the use of inversions here and parity and what each operation of the 4 possible does.. I really understood it in the end but damn, I am stupid

I gave a virtual contest of <https://codeforces.com/contest/1574> which was a contest where I did really bad in the past. I solved 2 problems, almost 3.. still a disaster (the problems are basically made not for me to solve them lol) but the 3rd problem was almost done.. I just missed a case. I then made a O(m \* log2(n)^2) solution and it passed but I also discovered a O(m \* log2(n)) solution which was nicer. Still I beat my past self from 2021 so that’s a win I guess.

Day 8: 21/04/2025 -> Unrated

I participated in <https://codeforces.com/contest/2103> (Div2) and got place 1777 by solving A B C, not terrible but I could have been faster on B and of course, C. will upsolve tomorrow problems D and E

Day 9: 24/04/2025 -> Unrated

I participated in <https://codeforces.com/contest/2106> (Div3) and got place 169 by solving A B C D E F. Really strong contest for me, will upsolve G1 and G2 soon

Day 10: 25/04/2025 -> Unrated

Solved <https://codeforces.com/contest/1822/problem/F> (1700 Difficulty) in 35 minutes. Nice graph problems, I worked a little more on my nodes levels in a graph techniques.

Score: 50 + 20 + 10 -> 80 points

Solved <https://codeforces.com/problemset/problem/1114/C> (1700 Difficulty) in 22 minutes.

Score: 50 + 30 + 10 -> 90 points

Solved <https://codeforces.com/contest/833/problem/A> (1700 Difficulty) in 30 minutes but with a glance at the editorial.. I made a solution but got TLE on test 8. The complexity is good in my opinion, I don’t know why. But in the end I saw the easy observation I was missing :( . So sad

Score: 20 + 30 + 10 -> 60 points

Solved [https://codeforces.com/contest/1984/problem/C1 (1300](https://codeforces.com/contest/1984/problem/C1%20(1300) Difficulty) and [https://codeforces.com/contest/1984/problem/C2 (1700](https://codeforces.com/contest/1984/problem/C2%20(1700) Difficulty). I solved C1 with dp pretty fast but for C2 I couldn’t convert the dp. I then red the editorial and found out about the neat idea that operation 2 on a negative number should be made exactly once.. and this changed everything. Really nice solution but hard to see, idk.. at least for me. I also did a solution with map exactly to address the duplicates issue. Nice solution, I feel like I got the most out of this problem really.

Score: 20 + 10 + 10 -> 40 points (for C2), I had 90 for C1

Day 11: 26/04/2025 -> Unrated

Upsolved <https://codeforces.com/contest/2103/problem/D> and I spent 2 hours trying first a graph approach but then with very little help from editorial (it was very vague so I would say it helped like 10%) I made a working soluion for the problem. What I got from this is that in construction problems I should thing about it on layers if possible. Nice problem. I spent a little more time to make a shorter solution and that’s it

Day 12: 27/04/2025 -> Unrated

Gave a virtual contest on <https://codeforces.com/contest/1557> and got place 956 which is way better than the 6936 I got 4 years ago so that’s cool. I also upsolved problem D of 2200 difficulty and I made some changes to my segement tree template. Nice coordinates compression, I couldn’t solve it by myself…

Solved <https://codeforces.com/problemset/problem/1672/D> (1700) in around 25 minutes. Looked hard initially but actually nice problem.

Score: 50 + 30 + 10 -> 90 points

Day 13: 28/04/2025 -> Unrated

Solved <https://codeforces.com/problemset/problem/1750/D> (1800) in 42 minutes. I realized I needed to find the number of coprimes of X in interval [1, Y] which I didn’t really know so I searched the internet (I think that’s ok). Now I made a template for this

Score: 50 + 20 + 10 -> 80 points

Solved <https://codeforces.com/problemset/problem/1705/D> (1800) in 17 minutes. It was pretty easy once I found the click.

Score: 50 + 30 + 10 -> 90 points

Solved <https://codeforces.com/contest/1648/problem/B> (1800) in 48 minutes. Nice use of kind of Eratosthenes Sieve. A little slow but it’s a 1800 so we are good.

Score: 50 + 20 + 10 -> 80 points

Participated in <https://codeforces.com/contest/2104> (Div2) and solved first 4 problems.. unfortunately I was very close to solve the 5th one, just 2 more minutes needed, I got accepted after the contest :(. That’s it, next time. Anyways, the cheaters on codeforces are getting out of hand.. crazy how many people solved first 5 problems. I am tehnically place 2400 and this is really weird :)))

Day 14: 29/04/2025 -> Unrated

Solved <https://codeforces.com/problemset/problem/687/C> (1900) with the help of editorial. I knew it was dp and I tried a solution but it didn’t work.. I couldn’t get the dp states like that. Key note for myself: Try to also think dp as a possible or not possible solution and to update it in the go.. my bad. It took me 50 minutes before looking at the editorial

Score: 10 + 0 + 10 -> 20 points

Solved <https://codeforces.com/problemset/problem/1430/E> (1900) in 28 minutes so really fast. Nice inversion problems but I made a little bit the confusion with some other permutation property where you can make any swap, not necessarily on consecutive cells. I will look a little bit into a problem with this concept

Score: 50 + 30 + 10 -> 90 points

Solved <https://codeforces.com/problemset/problem/1082/E> (2000) with the help of some solutions and tutorials from comments in editorial. I made a dp solution and a divide and conquer one. I understood them both. I thought about a segment tree solution initially but no success, also binary search, dp but I couldn’t see how to oprimize and of it and get to a solution. Pretty hard for my first 2000 but the solutions were so nice, I always feel stupid after seeing them.

Score: 10 + 0 + 10 -> 20 points

Solved <https://codeforces.com/problemset/problem/1781/D> (1800) after a small hint from editorial.. I really didn’t think to try and get an equation out of 2 numbers to find all possible values of x.. as soon as I saw for a moment this idea I managed to implement the solution by myself :(((. Tip for myself: try to write more things down and find things that are unknown..

Score: 20 + 10 + 10 -> 40 points

Solved <https://codeforces.com/problemset/problem/1148/D> (1800) in 31 minutes alone so that is a success. Another adhoc problem, glad I solved it.

Score: 50 + 20 + 10 -> 80 points

Solved <https://codeforces.com/contest/623/problem/A> (1800) in 42 minutes with a little bit of help by looking at tests. I didn’t think it’s necessary to check the validity of the graph at the end. Also, nice catch with the fact that nodes with b are only the ones connected to all other nodes, idk why I didn’t made that ovservation.

Score: 40 + 20 + 10 -> 70 points

Day 15: 30/04/2025 -> Unrated

Solved <https://codeforces.com/problemset/problem/540/D> (1900) in 47 minutes because it felt vague on how the probability at each turn is calculated, my bad..

Score: 40 + 20 + 10 -> 70 points

Solved <https://codeforces.com/problemset/problem/1585/D> (1900) in 51 minutes fully by myself. Nice problem using FenwickTree actually. Cool observations and I was a little bit slow on time but hey.. at least I solved it. After this I spent some time to better understand what a 3 cycle is and how it can be represented as 2 separate transpositions on the array. Now it makes so much more sense. I actually solved it by creativity, how am I so bad at math ? :)

Score: 50 + 10 + 10 -> 70 points

Day 16: 01/05/2025 -> Unrated

Participated in <https://codeforces.com/contest/2108> (Div2) with a performance of a 1540, solving A, B, C. It’s pretty frustrating to be honest.. This was my 6th contest and now my rating is stabilized. I will work on my skills for 3 months and starting with august I will participate again for 2 months. Hope that I will reach 1900 in those 3 months and have an average performance over 1850, I think this is decent expectations.

Solved <https://codeforces.com/problemset/problem/1674/F> (1800) in 37 minutes. This was an implementation problem, really nice for me to start not overcomplicate solutions. I also red after a really nice solution that transforms the matrix into an actual array, really cool concept

Score: 50 + 20 + 10 -> 80 points

Day 17: 02/05/2025 -> Unrated

Solved <https://codeforces.com/contest/1500/problem/A> (1800) but only after a small peak at the editorial.. I really didn’t think that bruteforce was the right call here, lool. The idea was pretty easy once realizing that we can’t go more than min(n^2, 2\*2.5\*10^6)…

Score: 20 + 0 + 10 -> 30 points

Solved <https://codeforces.com/contest/1619/problem/D> (1800) but again... I thought about binary search but not on the simple idea that I just need to make sure there is at least one shop that can buy a gift for 2 people.. idk man, how am I so bad?

Score: 20 + 0 + 10 -> 30 points

Attempted <https://codeforces.com/contest/1552/problem/D> (1800) but with no success. Even after editorial it feels really off and I can’t understand it properly. Will come back to this after a while with new powers.

Score: 0 + 0 + 0 -> 0 points

Ok, now important. I think about starting a “Group Solving”, what I mean is selecting 5 problems from each of 3 diffculties above my rating, that being 1800, 1900 and 2000, 15 problems total. I will try to not waste more than 1 hour and 15 minutes on a problem + editorial that should be max 2 hours per problem. I will see how many points I can get per group and what is the total time of completion. Once I consistently get 70+ points and I have decent solving time I will upgrade to next difficulty like in a window. Wish me luck. Starting with group 2 I will not upsolve the problems immediately. I will try and if I don’t see the solution I will leave them as they are and when getting through other 3 groups I will get back to that group. For example If I have an unsolved problem in group 2 I will try it again after finishing group 5.

GROUP #1:

1800:

<https://codeforces.com/problemset/problem/300/C> 1800 - Score: 90 Time: 22 minutes

<https://codeforces.com/problemset/problem/1841/C> 1800 - Score: 70 Time: 56 minutes

<https://codeforces.com/problemset/problem/1861/D> 1800 – Score: 0 Time: 70 minutes

<https://codeforces.com/problemset/problem/721/C> 1800 – Score 30 Time: 90 minutes

<https://codeforces.com/contest/1466/problem/E> 1800 - Score 90 Time: 25 minutes

Time to fully get through 1800’s: 263 minutes with average score of 56 so not too amazing

1900:

<https://codeforces.com/problemset/problem/1238/D> 1900 - Score 70 Time: 52 minutes

<https://codeforces.com/contest/459/problem/E> 1900 - Score 80 Time: 38 minutes

<https://codeforces.com/problemset/problem/1920/D> - Score 80 Time: 29 minutes

<https://codeforces.com/problemset/problem/1918/D> - Score 10 Time:

<https://codeforces.com/problemset/problem/2040/D> - Score 10 Time: 100 minutes

Time to fully get through 1900’s: 319 minutes with average score of 50. I would say okish.. I hope to get a +40 score for 2000 problems.

2000:

<https://codeforces.com/problemset/problem/1900/D> 2000 - Score 10 Time: 130 minutes

<https://codeforces.com/contest/598/problem/E> 2000 - Score 60 Time: 60 minutes

<https://codeforces.com/contest/1416/problem/C> 2000 - Score 80 Time: 46 minutes

<https://codeforces.com/problemset/problem/1370/D> 2000 - Score 70 Time 37 minutes

<https://codeforces.com/contest/1200/problem/E> 2000 – Score 10: Time 120 minutes

Time to fully get through 2000’s: 393 minutes with average score of 46 so not that bad, hopefully in next group I will beat these results

Total Group Points: 50.66

Group1, problem1 (1800) - <https://codeforces.com/problemset/problem/300/C>

Solved it nicely with modinverse in 22 minutes, nice problem. Seemed dp at first but then I got it, I just used bruteforce for it to find how many a’s and b’s the number has.

Score: 50 + 30 + 10 -> 90 points

Group 1, problem 2 (1800) <https://codeforces.com/problemset/problem/1841/C>

Solved it in 56 minutes with greedy approach somehow keeping count of the sum to right and sum to left and elements in the left not affected yet by any bigger number after them. This way I could bruteforce every position pretty nicely. I also spent some time and solved it with dp as the editorial suggested. I didn’t think of keeping max till now actually, that’s why dp was not working in my head at first. Also greedy approach is very nice as well, didn’t think of that

Score: 50 + 10 + 10 -> 70 points

Day 18: 03/05/2025 -> Unrated

Group 1, problem 3 (1800) <https://codeforces.com/problemset/problem/1861/D>

Really annoying implementation and case forces problem, I really didn’t like it but I also missed some core ideas so yeah.. bad problem for me overall. I would give myself a 0 score on this

Score: 0 + 0 + 0 -> 0 points

Group 1, problem 4 (1800) <https://codeforces.com/problemset/problem/721/C>

I really enjoyed this problem. I tried to solve it with Dijkstra but I got wrong answer on test 26 because this isn’t a correct approach. Then I got a hint from editorial that it’s dp on a graph and I did it by myself but with TLE on test 11 because I tried to manually verify that all parents of current node are already processed and this was slow. Then I made the solution with TopologicalSort and it was really nice.

Score: 20 + 0 + 10 -> 30 points

Group 1, problem 5 (1800) <https://codeforces.com/contest/1466/problem/E>

Interesting bits operations problem, solved it in 25 minutes so pretty good result.

Score: 50 + 30 + 10 -> 90 points

Day 19: 04/05/2025 -> Unrated

Group 1, problem 6 (1900) <https://codeforces.com/problemset/problem/1238/D> I solved it in 52 minutes which is very slow I am honest but I kept discovering more and more properties, of.. I feel like I could have been way faster

Score: 50 + 10 + 10 -> 70 points

Group 1, problem 7 (1900) <https://codeforces.com/contest/459/problem/E> I solved it in 38 minutes which is really nice, I also solved it the most optimal way possible.

Score: 50 + 20 + 10 -> 80 points

Day 20: 05/05/2025 -> Unrated

Group 1, problem 8 (1900) <https://codeforces.com/problemset/problem/1920/D> I solved it in 29 minutes. To be fair I had a small hint because I solved this problem a bit more than a year ago so I knew it was with binary search. Nice problem overall

Score: 40 + 30 + 10 -> 80 points

Group 1, problem 9 (1900) <https://codeforces.com/problemset/problem/1918/D> I didn’t solved it but understood the solution. Nice way of keeping best possible candidates in a set with sliding window technique. I will upsolve it tomorrow. I though about using binary search but couldn’t figure out how to calculate dp[i] or how to truly check if a value <= m is possible or not.

Score: 0 + 0 + 10 -> 10 points

Day 21: 07/05/2025 -> Unrated

Group 1, problem 10 (1900) <https://codeforces.com/problemset/problem/2040/D> I didn’t solved it.. :(( I tried different solution but missed some simple ones.. I solved it easily after the editorial, of..

Score: 0 + 0 + 10 -> 10 points

Day 22: 09/05/2025 -> Unrated

Group 1, problem 11 (2000) <https://codeforces.com/problemset/problem/1900/D> . Hard problem in my opinion, I couldn’t solve it as I didn’t know the trick:

In order to calculate how many pairs (x, y) have gcd(x, y) = k

you can have the formula:

gcd(x, y, k) = how many pairs x, y have gcd = k

cnt(x, y, k) = how many pairs x, y have the divizor k (not gcd)

Then:

gcd(x, y, k) = cnt(x, y, k) - gcd(x, y, 2k) - gcd(x, y, 3k) - gcd(x, y, 4k) ....

So you can go backwards and calculate gcd(x, y, k) for all k from 1 to MAX with compelxity

O(M \* log2(M))

For this you can also use mobius formula but it's not that flexible inbetween calculations

So I red the editorial and also some adjacent ideas with mobius formula and solved it by myself. Nice idea and execution, will remember it for future.

Score: 0 + 0 + 10 -> 10 points

Group 1, problem 12 (2000) <https://codeforces.com/contest/598/problem/E> I actually solved it by myself with dp with memoization, nice problem. The only issue is that I thought I can use symmetry that for example to find k in x by y is the same like finding x\*y - k in x by y which was wrong. So I got a little help here

Score: 40 + 10 + 10 -> 60 points

Group 1, problem 13 (2000) <https://codeforces.com/contest/1416/problem/C> I actually solved this completely alone, I am so happy. What I have noticed is that I am kinda good on bits related problems, feels like my strongest area, weird. I also constructed a template for InversionCounter with mergesort.

Score: 50 + 20 + 10 -> 80 points

Day 23: 10/05/2025 -> 0

I participated virtually in contest <https://codeforces.com/contest/1623> and solved A, B, C with place 583 if I would have participated officially then so pretty nice. Will upsolve problem D later.

Group 1, problem 14 (2000) <https://codeforces.com/problemset/problem/1370/D> I solved it in 37 minutes with just a look at test number 30 that made me see that we can take 2 options in case first 2 elements are both good. Easy problem for a 2000 in my opinion

Score: 40 + 20 + 10 -> 70 points

Day 24: 11/05/2025 -> Unrated

I participated in <https://codeforces.com/contest/2102> (Div2) and solved A, B, C, D with place 1101 so pretty good performance.

Day 25: 12/05/2025 -> 591

Group 1, problem 15 (2000) <https://codeforces.com/contest/1200/problem/E> . I tried it for almost an hour but couldn’t think of a fast solution to check longest prefix/suffix match. But after I learned about KMP failure function and also I made a template for it + a template for a nice solution with StringHash made by neal.. I got accepted after so nice ideas.

Score: 0 + 0 + 10 -> 10 points

GROUP #2:

1800:

<https://codeforces.com/contest/1721/problem/D> 1800 – Score 45, Time : 144 minutes

<https://codeforces.com/contest/706/problem/D> 1800 – Score 75, Time 45 minutes

<https://codeforces.com/contest/1151/problem/C> 1800 – Score 75, Time: 40 minutes

<https://codeforces.com/problemset/problem/747/D> 1800 – Score 90, Time 29 minutes

<https://codeforces.com/problemset/problem/1575/D> 1800 – Score 100, Time 15 minutes

Time to fully get through 1800’s: 273 minutes with average score of 77 so pretty good this time actually

1900:

<https://codeforces.com/contest/1264/problem/B> Score : 60, Time 76 minutes

<https://codeforces.com/problemset/problem/1994/D> Score: 30: Time: 55 minutes

<https://codeforces.com/contest/1119/problem/E> Score: 65: Time: 45 minutes

<https://codeforces.com/problemset/problem/1029/D> Score: 90 Time: 25 minutes

<https://codeforces.com/contest/496/problem/D> Score: 60 Time: 62 minutes

Time to fully get through 1900’s: 263 minutes with average score of 61 so better than last time

2000:

<https://codeforces.com/problemset/problem/1487/E> Score : 80, Time 34 minutes

<https://codeforces.com/problemset/problem/1872/G> Score: 70, Time 107 minutes

<https://codeforces.com/problemset/problem/400/D> Socre 75, Time 44 minutes

<https://codeforces.com/problemset/problem/196/B> Score 60, Time 72 minutes

<https://codeforces.com/contest/1862/problem/G> Score 70, Time 121 minutes

Time to fully get through 2000’s: 378 minutes with average score of 71 so amazing I would say

Day 26: 13/05/2025 -> Unrated

Group 2, Problem 1: I solved <https://codeforces.com/contest/1721/problem/D> 1800 after 1 hour theoretically after a small look at editorial. But I got TLE because I overlooked the fact that I was keeping partitions of invalid length.. and that’s why I got TLE.. I spent a lot of time on this to understand why it happens.. fuck me. I also made 2 different solutions because of this. I also spent some time after and solved with the intended solution.

Score: 30 + 5 + 10 -> 45 points

Group 2, Problem 2: I solved <https://codeforces.com/contest/706/problem/D> 1800 with trie which was the intended solution. I also created some templates for different trie cases. I solved in in 45 minutes so pretty good.

Score: 50 + 15 + 10 -> 75 points

Group 2, Problem 3: Solved <https://codeforces.com/contest/1151/problem/C> 1800 in 40 minutes with some math basically.

Score: 50 + 15 + 10 -> 75 points

Group 2, Problem 4: Solved <https://codeforces.com/problemset/problem/747/D> 1800 in 29 minutes, nice greedy problem. I first thought it’s a dp problem but pretty fast switched my idea

Score: 50 + 30 + 10 -> 90 points

Day 27: 14/05/2025 -> Unrated

Group 2, Problem 5: Solved <https://codeforces.com/problemset/problem/1575/D> 1800 in 15 minutes, pretty straight forward bruteforce solution, nothing wow.

Score: 50 + 40 + 10 -> 100 points

Group 2, Problem 6: Solved <https://codeforces.com/contest/1264/problem/B> 1900 in 76 minutes just because it was really annoying to implement, I am pretty weak at problems with a lot of case work.. :(. Also I looked at test after 1 hour because I was tilted.

Score: 40 + 10 + 10 -> 60 points

Day 28: 15/05/2025 -> Unrated

Group 2, Problem 7: Solved <https://codeforces.com/problemset/problem/1994/D> 1900 but not by myself. I couldn’t figure out that it’s pigeonhole principle.. sad. But once I got the main idea I did a solution from scratch.

Score: 20 + 0 + 10 -> 30 points

Solved <https://www.codechef.com/problems/SEGTREECON> from Codechef along with other problems before but this one was actually really nice and kinda harder, nice problem on graphs.

Day 29: 16/05/2025 -> Unrated

Group 2, Problem 8: Solved <https://codeforces.com/contest/1119/problem/E> 1900 but I had to look at test 21 just to realise that 2 equal powers of 2 together gives me exactly the next power of 2, not enough to form a triangle, I don’t know what I was thinking, lol. Otherwise, nice problem, solved it in 45 minutes.

Score: 40 + 15 + 10 -> 65 points

Group 2, Problem 9: Solved <https://codeforces.com/problemset/problem/1029/D> 1900 in 25 minutes. It felt easier actually, nice math problem.

Score: 50 + 30 + 10 -> 90 points

Group 2, Problem 10: Solved <https://codeforces.com/contest/496/problem/D> 1900 in 62 minutes after also looking at test 7 and saw the condition I missed from this, It was 98% correct. Sometimes I get impatient and it’s very tempting to look at tests. Anyway, pretty interesting problem, I used lower\_bound instead of classic binary search and I am glad.

Score: 40 + 10 + 10 -> 60 points

Day 30: 17/05/2025 -> Unrated

Group 2, Problem 11: Solved <https://codeforces.com/problemset/problem/1487/E> 2000 in 34 minutes with multiple segment trees, really nice problem. I also build a getWithExcludedIndices method now in my template exactly for this, really cool.

Score: 50 + 20 + 10 -> 80 points

Participated in <https://codeforces.com/contest/2109> Div2 with a very bad performance… I solved only A and B with place 4000+ and on C1 I just took a wrong approach with division.. also the trick for C2 was well known actually but I spent more time on C1.. oh man, I feel so bad and weak now.. will take a brake for today, will be back tomorrow on training. What I mean is that I hate when doing so well on hard problems alone but during virtual contests I fuck up like this.

I now decided to start a fresh acound from 0 that will track my CP career, the account name is AlexandruINV

Day 31: 19/05/2025 -> Unrated

Solved <https://codeforces.com/problemset/problem/1872/G> 2000 in 2 different days, one day I spent 90 minutes but couldn’t find a final solution but the second day after 7 minutes it hit me that I can actually check all positions for where it can start or end in the case where the total product of elements is less than 1e15 for example.. now I feel bad that it took me so long, uof :((

Score: 50 + 10 + 10 -> 70 points

Solved <https://codeforces.com/problemset/problem/400/D> 2000 in 44 minutes, nice problem with graph compression, I also created a template for Floyd Warshall with this opportunity.

Score: 50 + 15 + 10 -> 75 points

Day 32: 20/05/2025 -> Unrated

Solved <https://codeforces.com/problemset/problem/196/B> 2000 in 72 minutes but actually I got the idea much faster but I was using a map to save the previous apparitions in the graph and it was too slow.. really nice trick to use the visited matrix as a pair to store the x and y of the point that visited that position.. I was missing only that for optimization.

Score: 40 + 10 + 10 -> 60 points

Day 33: 21/05/2025 -> Unrated

Solved <https://codeforces.com/contest/1862/problem/G> 200 after 121 minutes. The main evervation came after 26 minutes I think and then I spent some time thinking of how can I update the differences and so.. I overcomplicated it a lot with an ordered\_set and some maps but it worked in the end after some bugs tweaks.. I also looked over editorial just to find out how easier was to implement with just 2 multisets by using the find function, sad situation but hey, it’s a 2000 after all. :)

Score: 50 + 10 + 10 -> 70 points

GROUP #3:

1800:

<https://codeforces.com/problemset/problem/1316/C> Score: 75, Time 41 minutes

<https://codeforces.com/problemset/problem/442/B> Score 75, Time 42 minutes

<https://codeforces.com/problemset/problem/280/B> Score 90, Time 15 minutes

<https://codeforces.com/problemset/problem/483/B> Score 90, Time 15 minutes

<https://codeforces.com/contest/132/problem/C> Score 60, Time 80 minutes

Time to get through 1800’s: 193 minutes with average score of 78 so way better than last time, nice

1900:

<https://codeforces.com/contest/191/problem/C> Score: 80, Time 36 minutes

<https://codeforces.com/problemset/problem/1647/D> Score: 60, Time 70 minutes

<https://codeforces.com/problemset/problem/1834/D> Score 20, Time 120 minutes

<https://codeforces.com/problemset/problem/552/D> Score 70, Time 70 minutes

<https://codeforces.com/contest/327/problem/D> Score 80, Time 37 minutes

Time to get through 1900’s: 333 minutes with average score of 62 so a little better than last time

2000:

<https://codeforces.com/problemset/problem/1632/D> Score 30, Time 79 minutes

<https://codeforces.com/problemset/problem/1956/D> Score 70, Time 71 minutes

<https://codeforces.com/contest/641/problem/E> Score 70, Time 71 minutes

<https://codeforces.com/contest/2020/problem/E> Score 30, Time 120 minutes

<https://codeforces.com/problemset/problem/388/C> Score 70, Time 120,

Time to get through 2000’s: 461 minutes with average score of 54 so worse than last time

Day 34: 22/05/2025 -> Unrated

Solved <https://codeforces.com/problemset/problem/1316/C> 1800 after 41 minutes, took me pretty long to actually see the catch of starting from biggest indices to smallest.. but it was ok in the end

Score: 50 + 15 + 10 -> 75 points

Solved <https://codeforces.com/problemset/problem/442/B> 1800 in 42 minutes. It was kinda guessing and some math proof that it’s always best to combine 2 closest and smallest propabilities if you have to combine so I made a O(n^4) solution that worked quite good. I just had to make sure that it’s not possible to have a good set consisting of not consecutive values. Nice problem

Score: 50 + 15 + 10 -> 75 points

Solved <https://codeforces.com/problemset/problem/280/B> 1800 in 15 minutes, pretty easy observation to maximize XOR actually, but again, I feel like bit operations is the best topic for me

Score: 50 + 30 + 10 -> 90 points

Solved <https://codeforces.com/problemset/problem/483/B> 1800 in 15 minutes but it was a div2 B, it didn’t feel like a 1800, lol. Pretty easy number theory problem.

Score: 50 + 30 + 10 -> 90 points

Solved <https://codeforces.com/contest/132/problem/C> 1800 in 80 minutes, pretty hard dp problem with many cases in my opinion.. I also missed some overflow issue that I fixed by looking at test 9, sad :(

Score: 40 + 10 + 10 -> 60 points

Solved <https://codeforces.com/contest/191/problem/C> 1900 in 36 minutes with LCA and some cool lazy updates on the paths, I really liked this problem and I really start to feel better and better to be honest.

Score: 50 + 20 + 10 -> 80 points

Day 35: 23/05/2025 -> Unrated

Participated virtually in <https://codeforces.com/contest/1567> taking place 1342 solving A, B, C. I was almost able to solve D as well, sad.. anyway..

Day 36: 24/05/2025 -> Unrated

Solved <https://codeforces.com/problemset/problem/1647/D> 1900 in 70 minutes so pretty slow.. and also after taking a peek at a test. I am kinda bad at number theory problems it looks like unfortunately, I will try to look more into this area

Score: 40 + 10 + 10 -> 60 points

Participated virtually in <https://codeforces.com/contest/1594> and took place 740 solving A, B, C, D, E1, way better than previous 3300+ when I participated 4 years ago, really nice improvement

Participated in <https://codeforces.com/contest/2110> Div2 and got place 771 solving A, B, C, D, really good performance I would say, I will also upsolve E and F.

Day 37: 25/05/2025 -> 650

Upsolved <https://codeforces.com/contest/2110/problem/E> from last Div2 and also created an EulerPath template, nice use of this concept..

Day 38: 26/05/2025 -> 650

Participated in [https://codeforces.com/contest/2114 Div3](https://codeforces.com/contest/2114%20Div3) and got place around 800+, sad that I couldn’t solve the 6th problem :(

Day 39: 27/05/2025 -> 1042

Solved <https://codeforces.com/problemset/problem/1834/D> 1900 but not by myself.. somehow I couldn’t realise that it’s always better to take the lowest segment in length as for the one fully intersecting my segement.. I feel stupid but that’s it. Implemented it myself after all but sad.

Score: 10 + 0 + 10 -> 20 points

Upsolved <https://codeforces.com/contest/2114/problem/F> from last Div3 and did it by myself.. apparently the bottleneck was my dp not the factorization. Either way I solved it with gcd and smart dp based on sorted k’s

Solved <https://codeforces.com/problemset/problem/552/D> 1900 in 70 minutes, I had such a stupid bug, it could have been done way sooner, sad :((

Score: 50 + 10 + 10 -> 70 points

Day 40: 28/05/2025 -> 1042

Solved <https://codeforces.com/contest/327/problem/D> 1900 in 37 minutes, pretty standard bfs problem, I spent more time implementing it actually

Score: 50 + 20 + 10 -> 80 points

Day 41: 29/05/2025 -> 1042

Solved <https://codeforces.com/problemset/problem/1632/D> 2000. I thought about different soutions but couldn’t realise that the length rises while the gcd is going down so for a fixed L there is maximum 1 R so that [L, R] has gcd == R – L + 1.. I know it’s logical but I didn’t think about the problem this way, I was always thinking how can I solve it looking at previous indices for current index.. anyway, after I got this hint I was able to fully solve the problem by myself in 19 minutes. I will try to remember that the gcd is lower and lower as the interval is bigger and maybe it can be a hint for future problems. Total solve time was 79 minutes

Score: 20 + 0 + 10 -> 30 points

Solved <https://codeforces.com/problemset/problem/1956/D> 2000 in 71 minutes. I spent a lot on the actual operations implementation, the idea came to me pretty quickly. I also saw that editorial and other solutions shared similar ideas. Nice problem

Score: 50 + 10 + 10 -> 70 points

Day 42: 30/05/2025 -> 1042

Solved <https://codeforces.com/contest/641/problem/E> 2000 in 71 minutes. Really nice problem with multiple Segment trees, I feel really good when actually solving harder problems like these.

Score: 50 + 10 + 10 -> 70 points

Tried to solve <https://codeforces.com/contest/2020/problem/E> 2000 but I got a too slow complexity of O(n \* 1024).. so I TLE on test 12. Well, I will still give myself 25 points for this implementation, will upsolve it later, the editorial was kinda weird a little, I want to let some time to pass.

Score: 25 + 0 + 5 -> 30 points

Day 43: 01/06/2025 -> 1042

Solved <https://codeforces.com/problemset/problem/388/C> 2000 with greedy aproach.. I didn’t think it can be that wasy for this difficulty but after many minutes I decided to submit like this :))

Score: 50 + 10 + 10 -> 70 points

GROUP #4:

1800:

I will also start a FAST group made to be faster on easier problems. For now I will practice only contests on Div4 (A, B, C, D, E), Div3 (A, B, C, D) and Div2 (A, B, C). I will start with groups formed of 1 div2, 1 div3 and 1Di4 till no more Div3 then go to 1Div2 and 2Div3 until no more Div3 and then only Div2.

FAST GROUP #1

Div4:

Div3:

Div2:

Day 44: 02/06/2025 -> 1042