3-3. Practice Skills – From Rating 1900 to 2200

If you want to be rating 2200, at first, you should be Div1 and compete in Div1 contests. It means you should solve a lot of difficult problems. (e.g. R1900 or more in Codeforces)

Even if you are good at fast-solving or solving typical problems very much, competing in Div1 is very different. Sadly, there was a lot of coders which travelling between blue and purple.

To be rating 2200, skills as follows are needed:

- You know and can use 10 algorithms which I stated in pp.11 and segment trees (including lazy propagations)
- You can solve problems very fast: For example, 5 mins for R1100, 10 mins for R1500, 15 mins for R1800, 40 mins for R2000.
- You have decent skills for mathematical-thinking or considering problems
- Strong mental which can think about the solution more than 1 hours, and don't give up even if you are below average in Div1 in the middle of the contest

[[How to Practice]]

This is only my way to practice, but I did many virtual contests when I was rating 2000. In this page, virtual contest does not mean "Virtual Participation" in Codeforces. It means choosing 4 or 5 problems which the difficulty is near your rating (For example, if you are rating 2000, choose R2000 problems in Codeforces) and solve them within 2 hours.

You can use https://vjudge.net/. In this website, you can make virtual contests from problems on many online judges. (e.g. AtCoder, Codeforces, Hackerrank, Codechef, POJ, …)

If you cannot solve problem within the virtual contests and could not be able to find the solution during the contest, you should read editorial. Google it. (e.g. If you want to know editorial of Codeforces Round #556 (Div. 1), search "Codeforces Round #556 editorial" in google)

There is one more important thing to gain rating in Codeforces. To solve problem fast, you should equip some coding library (or template code). For example, I think that equipping segment tree libraries, lazy segment tree libraries, modint library, FFT library, geometry library, etc. is very effective.