Used Links: - Birthday Paradox Problem: [https://www.geeksforgeeks.org/birthda...](https://www.youtube.com/redirect?event=video_description&redir_token=QUFFLUhqa2dPeDZ3TElERDhxSTJOUWY1cHhIR0xGVEJJQXxBQ3Jtc0tsNWZqeW9CSU15UU9hLUVFWWhzNjRqMnU0aG5WVVFhVkxJd2Z4VW9Da01yZ0VZTUI1VzBvZV9kdGNHR1owS25PTlgwZEhQMmtCMnZwS3cxVmFiT1BKSEhhTTdzZTRQMkY3QVh6OS1ZRVZmMXVBdC1vQQ&q=https%3A%2F%2Fwww.geeksforgeeks.org%2Fbirthday-paradox%2F)​ -

Codeforces Link: [https://codeforces.com/problemset?tag...](https://www.youtube.com/redirect?event=video_description&redir_token=QUFFLUhqbDlKZW5BTlBIS251WkNhcVdoOXpjaHgtR1NDUXxBQ3Jtc0ttSjVkdzU1bS1xeE5pb0tkd2RyamRuUzBNRlVld1BKU1N6RVV0V0E1Q1JzcklHb0x0QnVTOEd5OXROMlp5dEo1NUNCSV9hYzk0a0xST2xGZnNmbVlReThlSjBNejhLejZhTHBVVFRHSEhiXzc4SExvdw&q=https%3A%2F%2Fcodeforces.com%2Fproblemset%3Ftags%3Dmath%2Cbrute%2520force)​ –

Big Integer: [https://www.geeksforgeeks.org/biginte...](https://www.youtube.com/redirect?event=video_description&redir_token=QUFFLUhqbkp0aDVDVkZaVUpCN2dYX084Nnh6bWZ3cHV6UXxBQ3Jtc0trU2ZGRzN1MzVvNm5KT1l2UDZlV2RrX3FjaFhrY2wxUU9jcG9RYzBiMG95c2tQZDRCU2hkVko3WmZ0YmIzT1c1WE42OEFmd1lTS1VmZ0dkWE5YNWhYVnpuaXlTdGpTTWtpQ0RWNmtSeDVWLVhBQU4zbw&q=https%3A%2F%2Fwww.geeksforgeeks.org%2Fbiginteger-class-in-java%2F)​ -

Factorial of Large Number: [https://practice.geeksforgeeks.org/pr...](https://www.youtube.com/redirect?event=video_description&redir_token=QUFFLUhqbWRtMFBtOFMweXdqWV9tbFhjbmhid1ZVaFVKd3xBQ3Jtc0trWkt2dHBINV9nNHZLLVVlaWFoS1VqQTNQTGl4SzhKaHJJZ3UwdEFUOHBGUFVGWUNmcVVlWVZKaHdpNlItWGVKTVFGSm54OU9WVThQY2lTdFlqVnhZMDF4cW90dW41TGhCa3l1NXNrZGFEWExvVjBybw&q=https%3A%2F%2Fpractice.geeksforgeeks.org%2Fproblems%2Ffactorials-of-large-numbers%2F0)​ -

Modular Arithmetic Properties: [http://theoryofprogramming.com/2014/1...](https://www.youtube.com/redirect?event=video_description&redir_token=QUFFLUhqbTk0TW9kLTg5c19PV0VLZUM3MWh0YmRzQTliUXxBQ3Jtc0tsUnBqVTVvRTdPRkpFVWtJN3JSbzJUTkhfWmdpcG1UaUIwaWFrVlE4Q0lTSlF1U1BYVG5MczJGZFF4a05pT3dGdG9Pcjc0eWVmZzFsbWFraVd4THp2WEwzaTRXRUkxUWt4SDNvM09HZ0QtdHJ2bVFQdw&q=http%3A%2F%2Ftheoryofprogramming.com%2F2014%2F12%2F24%2Fmodular-arithmetic-properties%2F)​ -

Fast Exponentiation: [https://www.geeksforgeeks.org/modular...](https://www.youtube.com/redirect?event=video_description&redir_token=QUFFLUhqa0t3R3pkVDd1bndnZVZyc3dJR1VYcy1IS0tTQXxBQ3Jtc0trWkFkLUFsbTNyQVhTSVVVRUg1QjBzMk9ta1JiczNfVU5KVk11Tm90anBGa1J0SDdERm5Wdmp3NzJnSXRJb0MwWXVpbjhLRC1abmItaTdETjJOU2dLb2U4OHZFM045Mk9IN0hFdkRpVzhYYXVHdm1KVQ&q=https%3A%2F%2Fwww.geeksforgeeks.org%2Fmodular-exponentiation-power-in-modular-arithmetic%2F)​ -

Catalan Number: [https://www.geeksforgeeks.org/program...](https://www.youtube.com/redirect?event=video_description&redir_token=QUFFLUhqa0VSTlFISmJrQUxVUHM4eHpWdEllLWJaN0ZxQXxBQ3Jtc0tubV96WFdUeExLemxnTHprR1ZVX1Z3Q3hWam9qNGVDU2dFLW9HV2tFMEZPdkk3MndlTDJ3anBWY0pFUmtma1Viejdfak9PVm1jYjdCUGpEMXRxZFZXQ3M1bkJMdEpUN1J1TDdWQmRNNE05Tm1kWWRHSQ&q=https%3A%2F%2Fwww.geeksforgeeks.org%2Fprogram-nth-catalan-number%2F)​ -

Solving Linear Recurrence Relation - [https://www.hackerearth.com/practice/...](https://www.youtube.com/redirect?event=video_description&redir_token=QUFFLUhqbUJ3WThFRUNjWVJheTU5OFpGdTFYR2NvSXl3Z3xBQ3Jtc0treTk5Vl81V0ExNWNRSWkxZzRuT0lGRWRvUm5EQnloMzR1WXR5QmRJM0xudVYySjFXUTVBb1B4V1pqQ1VvVmV0d1d5ZkJIdF9VYlNTLVZEc1R6cS1ZTG1nbThCcEFoY3pNckVHdDBkN1Y1ME9wdnE1UQ&q=https%3A%2F%2Fwww.hackerearth.com%2Fpractice%2Fnotes%2Fsolving-linear-recurrence-relation%2F)​ –

Recursive Subsequence: [https://www.spoj.com/problems/SEQ/](https://www.youtube.com/redirect?event=video_description&redir_token=QUFFLUhqbGlfb2JJY3hGVXNYTm9FTWd5NVdyRnk0TkMwUXxBQ3Jtc0trdExtWGNCams5RjhSZGk2WWhadmJfSjhmWm5neVFEMVBvMHhFMGZIVzVWamVMcVZhYjlOeW0xek8wVk9iTU9ONkZEZnBkR2NkNFBvanh0bTJtS1ZmUm5Yc29XeXRkeUUyTlRZc1dycmFEemRRQVNwNA&q=https%3A%2F%2Fwww.spoj.com%2Fproblems%2FSEQ%2F)​ -

Divisible Subset: [https://www.codechef.com/problems/DIV...](https://www.youtube.com/redirect?event=video_description&redir_token=QUFFLUhqbU5qUzRfSHJNeVoyd0RyWEEwUFgxQnZmQVIwZ3xBQ3Jtc0ttMjN2SVFfWlBrUGJnekljOGVkNVBQTkU5eTgtRGhXNEFCR3R4bnV5YU9lSmpPbzNmcC1kbVpxX2dQSnlNVzdnUFI5SUhTNFUtU24tUkpwRmt2LW5IdGdMRXlPM2Y1d2dKZlp3ZXNyODR3TVpwUnJ4cw&q=https%3A%2F%2Fwww.codechef.com%2Fproblems%2FDIVSUBS)​ -

Pigeonhole Principle: [https://www.geeksforgeeks.org/discret...](https://www.youtube.com/redirect?event=video_description&redir_token=QUFFLUhqa0dXMjNiMHgtd2pHcVpPY2hHTlV0VHdaTXAwZ3xBQ3Jtc0tsdThtN0E1Vk5UTk55MXB6UkJ2dGlvS05XX0NkUEZYNEptN0lnb0xCTXdEZXlGZjR4MVNtdGszYVJwTnA3aEJxYzNDc1RsZTAtNjJNMFBMV0RrR0FwTzhacXE3MzAteEZCdnd3aEpZOUI1WUNmSl9yNA&q=https%3A%2F%2Fwww.geeksforgeeks.org%2Fdiscrete-mathematics-the-pigeonhole-principle%2F)​ -

SPOJ HOLI: [https://www.spoj.com/problems/HOLI/](https://www.youtube.com/redirect?event=video_description&redir_token=QUFFLUhqbWFCeXZvWGJvcmVwME9CV213RjA0UDFTZEU1d3xBQ3Jtc0trS0MyUWlOU1puaEZUaWhJQ1VTalBtTld3VWFQZHZqQklrRWd6M0FVNGxfY2lSU3pNOFEzUFpCbjZtTHZMeUFRTGY5Z0UwelRZdjRJa3c5c2xqZmNNWjktbWFWSHNYUjh5QW1HZ2xQT3QzVjZydnY3VQ&q=https%3A%2F%2Fwww.spoj.com%2Fproblems%2FHOLI%2F)​ -

The Grey Similar Code: [https://www.codechef.com/problems/GRAYSC](https://www.youtube.com/redirect?event=video_description&redir_token=QUFFLUhqa2E5RWI0S2czbmtRQzJydjhXdnhtMUJ5ZzRKZ3xBQ3Jtc0tuLU1nay1VemNhanJyTm9uQVFIb2NfcW10UFYxemhyMmtmbVU5TDdnZWQ4Qk9vV0JBZ2dFNUZtc09zeU1SelVmOVdSdFVxWHdiaVA1c3VzTnNWOXRUSEdGZmhtY0ZNczJNZlpFQ2R6aUlQaDl4RW9lMA&q=https%3A%2F%2Fwww.codechef.com%2Fproblems%2FGRAYSC)​ -

Inclusion and Exclusion Principle: [https://www.geeksforgeeks.org/inclusi...](https://www.youtube.com/redirect?event=video_description&redir_token=QUFFLUhqa1laQ3RORjV0WVZCd0c2NU1wZklnWHdiR3dXUXxBQ3Jtc0tuWXh6MmJFTWxsTElZVDI5WTc2TVRnRzBfRmVfUWJHTHcwcU9zS1Y1dlkzbG9aQV9PRkZScjY3V0VaRUg4cHctbi1ldHJWZDBWb05jMVNtR2ZQQnAtZzYzZDdXWlllekxsTXRMc01mUGhCaDI2TjF4bw&q=https%3A%2F%2Fwww.geeksforgeeks.org%2Finclusion-exclusion-principle-and-programming-applications%2F)​ -

Sereja and LCM: [https://www.codechef.com/problems/SEALCM](https://www.youtube.com/redirect?event=video_description&redir_token=QUFFLUhqbjZHYTBydnlQdzFMVW9paEpWQklvMG5XOV8zUXxBQ3Jtc0tuQnlDakxGdHZ2SkZ4SlV3SURlcFpJaVk3OHZrS2pwdXY0OHoycVZ3RGxyYlJfYjRjZ1VuVFFlR2kyM2kxVFl0LUwzZnE0ZWwtdGc5U2hEYndlSHlyOEdBNms4U2M2Tlk5QS1XTzZuT0N1LV9vQ2tKbw&q=https%3A%2F%2Fwww.codechef.com%2Fproblems%2FSEALCM)​ -

Mathematical expectation and Bernoulli Trials: [https://www.codechef.com/wiki/tutoria...](https://www.youtube.com/redirect?event=video_description&redir_token=QUFFLUhqa2dicDRZREFCRlpxX2pMZlgwX29YekdaTE1rQXxBQ3Jtc0treEI3R3RUZGRMX0Jxc2VwckdHS2lZdmtyQl9DUktTRmdOVkdGYnJvUHBtZzRCYW5WVzVRS3FTZzdfRWJEekRvWHowdEF0OW1UQlAtVl8tLW9QMWhpalJHSWRoeTJ3ck5ubWlZVk95Si1FZ294emZBOA&q=https%3A%2F%2Fwww.codechef.com%2Fwiki%2Ftutorial-expectation)​ -

OEIS: [http://oeis.org/](https://www.youtube.com/redirect?event=video_description&redir_token=QUFFLUhqbkFQM3cxZ28tenRjaGZmN0pLeENZMmVTd1FvZ3xBQ3Jtc0tseTRPNkxrZmU3VFJCb2N2a0hOa1dsX3pNS29mdXhHR3Z4ZmRBb2VOV3RfZTlqYWRlZHhQV1dEVDQzYTlmN2VhTDVKa2phempvdUV6LXlWdFdhZUpNM191eFNnRzRETUtHdnpFcUh3aDV6MHFGZG1HQQ&q=http%3A%2F%2Foeis.org%2F)​

More Question: - SPOJ JULKA: [https://www.spoj.com/problems/JULKA/](https://www.youtube.com/redirect?event=video_description&redir_token=QUFFLUhqbDg5UXJCMDhrQU81cEtMLXVhVEgzRGFfNFY0d3xBQ3Jtc0tsZElPbUkxMWVRXzlBZTVnQlh4eDFpSHgtdnJ6VjB6Z1FNZktyUUNMa1NXaXhNOE1jME9uZVNMcFVrQTNuQnRNMmxBV0Uzcmhnd3N5OVZOLVViQUQyLWFURWJGVERvUnlNZGxJc2E3NWpZR2xLWHo2NA&q=https%3A%2F%2Fwww.spoj.com%2Fproblems%2FJULKA%2F)​

- Hair Counting Problem: [https://www.mathscareers.org.uk/artic...](https://www.youtube.com/redirect?event=video_description&redir_token=QUFFLUhqa25MbHFQUU4wZnp0MDVQVDl5by1kRThJWWpnQXxBQ3Jtc0tubXZuTTg5T2FWVmZJZnBkQVBtVVNXaDhhYkNnSmRVdmhDNmlpeXJUQklHY0dXZ2c5bzU3ODMxbGZBYVNFb3BjWGpvR0l1Wk8zTGJVQXYyYjdabGJGMVUwLUFBNmdyWWQtZWNoRWNzazBGVTNzOHQ0aw&q=https%3A%2F%2Fwww.mathscareers.org.uk%2Farticle%2Fpigeonhole-principle%2F)​

- Prime looking number: [https://www.cut-the-knot.org/arithmet...](https://www.youtube.com/redirect?event=video_description&redir_token=QUFFLUhqazhJbEUzSmZlRTRYa3NOdldRZEpFN0wyQXEzZ3xBQ3Jtc0tsc1hZQWN2SVA5N1llM1NObE5mdVptbUtZYmNnTVBfMnpoOXFyNERSeWlCVmxheFFfcnhRMWFWdkZWcWlXMmlXX0NxandOdlczTWp4M3d0ajg2NS1rblNYSGRNSWpzMmFhTklOQ0M4cDdzMGVFN2xYQQ&q=https%3A%2F%2Fwww.cut-the-knot.org%2Farithmetic%2Fcombinatorics%2FInclExclEx.shtml)​

- Coupon collector problem: [https://www.youtube.com/watch?v=3mu47...](https://www.youtube.com/watch?v=3mu47FWEuqA&t=0s)​

- SPOJ FAVDICE: [https://www.spoj.com/problems/FAVDICE/](https://www.youtube.com/redirect?event=video_description&redir_token=QUFFLUhqbjdhUmxkS1VwSHpKN3cybmVENU83SEhBQmZVd3xBQ3Jtc0tuNzNjeUdyM2hmUERpdVpNZWdnekpmMVFOckJJY0t1Y09qVzdKWXdGUVl2OERtbGFFR3JCazd6ZWRsTUdGcUhOX3lBMm43VjlRNnE5M2VyNUl0SlVIYXhuSHJyUmRrSzZ2N3RocGdfS2hEcEFqUmJLSQ&q=https%3A%2F%2Fwww.spoj.com%2Fproblems%2FFAVDICE%2F)​

- SPOJ FIBOSUM: [https://www.spoj.com/problems/FIBOSUM/](https://www.youtube.com/redirect?event=video_description&redir_token=QUFFLUhqbGFwVV9WcWlOcEQ4VTVnSWp5UFZrZndfb3ZTd3xBQ3Jtc0ttaDVfSWRSclNNbWJNc2FRbDNoQW1LWktyNTF2WV9tZE1MVjBHM3FOSW9BcGplaXJTTkdpR29GRlBBSTNrT3lKTTV2WGhNRjBicnRldTZPSGM2M215ZUcwbC1TQmpYejZhczJaVW5waHB3Vy13SjYwQQ&q=https%3A%2F%2Fwww.spoj.com%2Fproblems%2FFIBOSUM%2F)​

- Modulo Sum Codeforces: [https://codeforces.com/problemset/pro...](https://www.youtube.com/redirect?event=video_description&redir_token=QUFFLUhqa0NRN19NaTBWc0pHazJVWmY1SzJlUVo4Z255d3xBQ3Jtc0traDNXZmU1dUptck1XTXFHekRpQzZ6M19abDdySXNvZWdLTTdFb0lkTmN6Nlpid0pCY0dITEp2VGFYNHZYT0tpS0NiWlVFQlJ3aGFRTnFtdzlRdnU4ekY1bDhCYURQWU9DUk1DYy1oTlZnWXhVeUh0Zw&q=https%3A%2F%2Fcodeforces.com%2Fproblemset%2Fproblem%2F577%2FB)​

- Tavas and SaDDas Codeforces: [https://codeforces.com/problemset/pro...](https://www.youtube.com/redirect?event=video_description&redir_token=QUFFLUhqa1lrSUp3NDBDN1dOQ2pPSXF1VGNLQlRhV3FiQXxBQ3Jtc0tscDZ3enpMZ01TdWdodm1PTGFic1NnY2JoVXRtMFRhejBES3RvSTVfREdrcF9pbXJtY2VtdF83N2k1ckxCelhfSC1QMFJPLWlNT1R1ZWhzOGxNRGZrZnRBTW9Sdl9LanhoQWh2ckNDQ3lWYkVvOWFJRQ&q=https%3A%2F%2Fcodeforces.com%2Fproblemset%2Fproblem%2F535%2FB)​

- Summing Sums SPOJ: [https://www.spoj.com/problems/SUMSUMS/](https://www.youtube.com/redirect?event=video_description&redir_token=QUFFLUhqbDlERVE5YVktdW51VEFTTi1kTDh1QVh1Mi1PZ3xBQ3Jtc0tuS0J4bWY5dG4tMDJ3b2hkdUFFU0dYNGVsX1c1Zl8teEUwTlhHQXpIX09TZ21nWERPdVJRWlB2R0x4UVpON012RlNQbG9pZ3hkNnVUaUlxZmhOd28xVE4yYzdYZWFnWnQ3MTJmVHFXUUlxTGdJcVVzTQ&q=https%3A%2F%2Fwww.spoj.com%2Fproblems%2FSUMSUMS%2F)​

- Marbles SPOJ: [https://www.spoj.com/problems/MARBLES/](https://www.youtube.com/redirect?event=video_description&redir_token=QUFFLUhqbXpNVFgyUzBjQjFHekI1YXBhX0Y1X3VrNE1jQXxBQ3Jtc0tsLXYxR2NvUU1hbW9lLTNleGtwaWIwbTBVMHVjQnBteTcydHFXWkcxbW5lc29SMWpzb3lCWEVBUnZuaW1xaUt1ZXdTeHBuRjFMX0t0UU5sVnFKTTUtQnpkelVzNkxsZEJaOWRvU3hhZXVESGhKZVd3aw&q=https%3A%2F%2Fwww.spoj.com%2Fproblems%2FMARBLES%2F)