

Mathematics:

Used Links: -

Birthday Paradox Problem: <https://www.geeksforgeeks.org/birthda...>

- Codeforces Link: <https://codeforces.com/problemset?tag...> - Big Integer: <https://www.geeksforgeeks.org/biginte...> - Factorial of Large Number: <https://practice.geeksforgeeks.org/pr...> - Modular

Arithmetic Properties: <http://theoryofprogramming.com/2014/1...> -

Fast Exponentiation: <https://www.geeksforgeeks.org/modular...> -

Catalan Number: <https://www.geeksforgeeks.org/program...> -

Solving Linear Recurrence Relation -

<https://www.hackerearth.com/practice/...> - Recursive Subsequence:

<https://www.spoj.com/problems/SEQ/> - Divisible Subset:

<https://www.codechef.com/problems/DIV...> - Pigeonhole Principle:

<https://www.geeksforgeeks.org/discret...> - SPOJ HOLI:

<https://www.spoj.com/problems/HOLI/> - The Grey Similar Code:

<https://www.codechef.com/problems/GRAYSC> - Inclusion and

Exclusion Principle: <https://www.geeksforgeeks.org/inclusi...> -

Sereja and LCM: <https://www.codechef.com/problems/SEALCM> -

Mathematical expectation and Bernoulli Trials:

<https://www.codechef.com/wiki/tutoria...> - OEIS: <http://oeis.org/>

More Question: - SPOJ JULKA:

<https://www.spoj.com/problems/JULKA/> - Hair Counting Problem:

<https://www.mathscareers.org.uk/artic...> - Prime looking number:

<https://www.cut-the-knot.org/arithmet...> - Coupon collector problem:

<https://www.youtube.com/watch?v=3mu47...> - SPOJ FAVDICE:

<https://www.spoj.com/problems/FAVDICE/> - SPOJ FIBOSUM:

<https://www.spoj.com/problems/FIBOSUM/> - Modulo Sum

Codeforces: <https://codeforces.com/problemset/pro...> - Tavas and

SaDDas Codeforces: <https://codeforces.com/problemset/pro...> -

Summing Sums SPOJ: <https://www.spoj.com/problems/SUMSUMS/>

- Marbles SPOJ: <https://www.spoj.com/problems/MARBLES/>

## Number Theory:

- <https://www.spoj.com/problems/AMR11E/> - easy sieve -
- <https://www.spoj.com/problems/GCDEX/> - read this -
- <https://discuss.codechef.com/t/a-danc...> -
- <https://www.spoj.com/problems/ANARC09C/> -
- <https://www.spoj.com/problems/CPRIME/...> -
- <https://www.spoj.com/problems/CSQUARE/> -
- <https://www.spoj.com/problems/NFACTOR/> -
- <https://www.spoj.com/problems/CUBEFR/> -
- <https://www.spoj.com/problems/DCEPC13D/> - this is CRT + Lucas + Fermat - <https://www.codechef.com/problems/SPOTWO> -
- <https://www.spoj.com/problems/DCEPC11B/> - Wilson theorem -
- <https://www.spoj.com/problems/AMR10C/> - factorisation -
- <https://www.spoj.com/problems/ALICESIE/> - formula -
- <https://www.spoj.com/problems/FACTCG2/> - factorisation -
- <https://www.spoj.com/problems/FACTMUL/> - CRT -
- <https://www.spoj.com/problems/PRIME1/> - Segmented Sieve -
- <https://www.spoj.com/problems/TDKPRIME/> - simple sieve with precompute - <https://www.spoj.com/problems/TDPRIMES/> - same as above - <https://www.spoj.com/problems/FINDPRM/> -
- <https://www.spoj.com/problems/LCPCP2/> - very simple -
- <https://www.spoj.com/problems/GCD2/> - tricky -
- <https://www.spoj.com/problems/NDIVPHI/> - use BigInteger -
- <https://www.spoj.com/problems/DIVSUM/> - pre computation or multiplication formula - <https://www.spoj.com/problems/DIVSUM2/> -
- Multiplication formula - <https://www.spoj.com/problems/MAIN74/> - find first few values and observe the pattern