Tasks

Juniors

- https://www.hackerrank.com/challenges/sherlock-and-counting
- https://www.hackerrank.com/challenges/manasa-and-factorials
- https://www.hackerrank.com/challenges/coin-change

Seniors

- https://www.hackerrank.com/challenges/manasa-and-combinatorics
- https://www.hackerrank.com/challenges/ichigo-and-cubes
- https://www.hackerrank.com/challenges/lucky-numbers

Counting

- Given integers N and K
- Find the number of $0 < X < N$ such that $X \cdot (N-X) > N \cdot K$

Factorial

- Given integer N
- Find smallest M for which M! ends with at least N zeroes

Change

- Given unlimited number of coins with values C[1], C[2], …, C[M]
- Find the number of distinct ways to pay the given amount N

String

- Given integer N
- Find the number of sequences of A and B that
  - contain exactly N letters A
  - contain exactly 2·N letters B
  - contain no more letters A than letters B in any prefix
  - contain no more letters A than letters B in any suffix
- Output the result mod 99991

Cubes

- Given a box composed of PxQxR unit cubes
  - gcd(P, Q) = gcd(Q, R) = gcd(R, P) = 1
- Find the number of cubes split by the diagonal

Lucky Numbers

- We call a number lucky, if
  - the sum of its digits is prime, and
  - the sum of squares of its digits is prime
- Given integers $A \leq B$
- Find the number of lucky numbers $A \leq X \leq B$