Some Problem Solving Techniques

Two Pointers

Sliding Window

Prefix sum

Difference Array

Two Pointers

২ টা পয়েন্টের হিসাব-নিকাশ।

Palindrome or Not

Two Pointers

২ টা পয়েন্টের হিসাব-নিকাশ।

$O(N^2) \rightarrow O(N)$

https://cses.fi/problemset/task/1640

Two Pointers + Sliding Window

২ টা পয়েন্টের মাঝখানের হিসাব-নিকাশ।

$O(N^3) \rightarrow O(N)$ or $O(N \log n)$

https://cses.fi/problemset/task/3420

https://cses.fi/problemset/task/1141

Two Pointers + Sliding Window

২ টা পয়েন্টের মাঝখানের হিসাব-নিকাশ।

$O(N^3) \rightarrow O(N)$ or $O(N \log n)$

https://cses.fi/problemset/task/2428

Prefix Sum

Pre-Calculation
$O(N) \rightarrow O(1)$

https://cses.fi/problemset/task/1646

Prefix Sum

Invertible Operation

✅

Addition(+) → Subtraction(-)
Multiplication(*) → Division(/)
Xor(^) → Xor(^)

❌

GCD/LCM
Min/Max
AND/OR

Prefix Sum

Prefix Sum makes two pointers powerful

https://cses.fi/problemset/task/1661/

Prefix Sum

Conversion to Prefix Sum

Problem - 313B

Codeforces. Programming competitions and contests, programming community

Codeforces

Difference Array

Opposite use case of prefix sum
Different Point of View

Problem - 295A

Codeforces. Programming competitions and contests, programming community

Codeforces

Difference Array

Opposite use case of prefix sum
Different Point of View

Problem - 816B

Codeforces. Programming competitions and contests, programming community

Codeforces