

Starting soon!

CCC Take-up

JFSS CS Club 2022/23
William, Tony, Roy



CCC '23 S1 - Trianglane



Process

Count all possible edges
(Number of filled triangles * 3)

Minus the edges that are
adjacent (Left and Right)

Minus the edges that are
adjacent (Top and Bottom)

Left with total amount of
edges

CCC '23 S2 -

Symmetric Mountains

Process

Subtask 1

$O(N^3)$

Nested For Loop

Outer loop: left point

Inner loop: right point

Another Nested For Loop

Loop through to find sum of absolute differences

Full Solution

$O(N^2)$

Two For Loops

Select a center point to expand from

Expand Outwards With Another Loop

Keep track of current sum, and use that to your advantage

CCC '23 S3 -

Palindromic Poster

Process

- Impossible if: $(R == N \text{ and } C \% 2 \neq 0 \text{ and } M \% 2 == 0) \text{ or } (C == M \text{ and } R \% 2 \neq 0 \text{ and } N \% 2 == 0)$
- Use letter "A" exclusively as column palindromes
- Use letter "B" exclusively as row palindromes except for row 1 which is represented by "A"
- Start by adding all column palindromes starting at index 0, M, 1, M - 1, 2, M - 2...
- Add row palindromes going from row 1 to row N
- Fill in remaining empty squares with random letters ensuring that no new palindromes are formed



Thanks!

Any questions?