Problem Summary

- Given the roots of two binary trees, determine if they are structurally identical and have the same node values

Key Idea

Two trees are the same if:

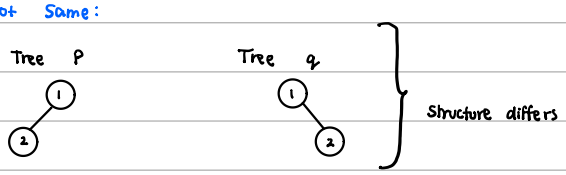
→ Both nodes are None (match)

→ OR both nodes exist, values match, and their left + right subtrees match

Diagram Examples

Same:

Not Same:



Approach

→ DFS Recursion

1) If both nodes are None → True

2) If one is None → False

3) If values differ → False

4) Return Same left AND Same right

Time Complexity : O(n) → Each node is compared once

Space Complexity : O(h) → Recursion stack, where h is tree height