# 1530. Number of Good Leaf Nodes Pairs

## SOLUTION IN JAVA

class Solution {

public int countPairs(TreeNode root, int distance) {

dfs(root, distance);

return ans;

}

private int ans = 0;

private int[] dfs(TreeNode root, int distance) {

int[] d = new int[distance + 1]; // {distance: the number of leaf nodes}

if (root == null)

return d;

if (root.left == null && root.right == null) {

d[0] = 1;

return d;

}

int[] dl = dfs(root.left, distance);

int[] dr = dfs(root.right, distance);

for (int i = 0; i < distance; ++i)

for (int j = 0; j < distance; ++j)

if (i + j + 2 <= distance)

ans += dl[i] \* dr[j];

for (int i = 0; i < distance; ++i)

d[i + 1] = dl[i] + dr[i];

return d;

}

}