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\* Definition for a binary tree node.

\* struct TreeNode {

\* int val;

\* TreeNode \*left;

\* TreeNode \*right;

\* TreeNode() : val(0), left(nullptr), right(nullptr) {}

\* TreeNode(int x) : val(x), left(nullptr), right(nullptr) {}

\* TreeNode(int x, TreeNode \*left, TreeNode \*right) : val(x), left(left), right(right) {}

\* };

\*/

class Solution {

public:

struct node

{

TreeNode \*parent;

int level;

};

inline void helper(TreeNode \*root, int val, int level, node &ans)

{

if (root == NULL)

return;

if (root->left && root->left->val == val || root->right && root->right->val == val)

{

ans.level = level;

ans.parent = root;

return;

}

helper(root->left, val, level + 1, ans);

helper(root->right, val, level + 1, ans);

}

bool isCousins(TreeNode\* root, int x, int y)

{

node n1, n2;

helper(root, x, 0, n1);

helper(root, y, 0, n2);

if (n1.level == n2.level)

return n1.parent != n2.parent;

return false;

}

};