236. Lowest Common Ancestor of a Binary Tree

题目描述：https://leetcode.com/problems/lowest-common-ancestor-of-a-binary-tree/

> 找到两个节点的最近公共父节点

解题思路：

如果当前root == NULL或者root == p 或者 root == q。
如果非上述情况递归找左边和右边，
如果左边和右边都返回节点说明两个节点分别在本节点左子树和右子树，则返回本节点。
否则返回有结果的那边。

代码：

```
/**
 * Definition for a binary tree node.
 * struct TreeNode {
 *     int val;
 *     TreeNode *left;
 *     TreeNode *right;
 *     TreeNode(int x) : val(x), left(NULL), right(NULL) {}
 * };
 */
class Solution {
public:
    TreeNode* lowestCommonAncestor(TreeNode* root, TreeNode* p, TreeNode* q) {
        if(root == NULL || p == root || q == root) return root;
        TreeNode* left = lowestCommonAncestor(root->left, p, q);
        TreeNode* right = lowestCommonAncestor(root->right, p, q);
        if(left != NULL && right != NULL) {
            return root;
        }
        if(left) return left;
        return right;
    }
};
```