1650. Lowest Common Ancestor of a Binary Tree III

Medium 1107 37 Add to List Share

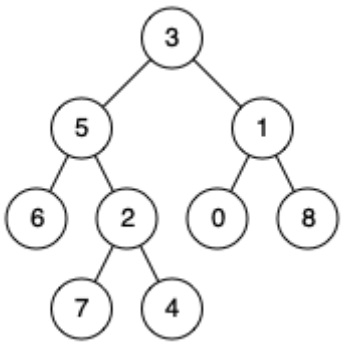
Given two nodes of a binary tree `p` and `q`, return *their lowest common ancestor (LCA)*.

Each node will have a reference to its parent node. The definition for `Node` is below:

```
class Node {
    public int val;
    public Node left;
    public Node right;
    public Node parent;
}
```

According to the **definition of LCA on Wikipedia**: "The lowest common ancestor of two nodes p and q in a tree T is the lowest node that has both p and q as descendants (where we allow **a node to be a descendant of itself**)."

Example 1:




```
Input: root = [3,5,1,6,2,0,8,null,null,7,4], p = 5, q = 1
Output: 3
Explanation: The LCA of nodes 5 and 1 is 3.
```

Example 2: