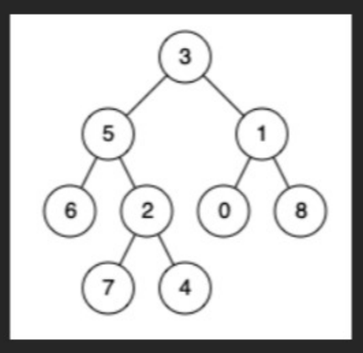
1740. Find Distance in a Binary Tree Premium

Medium | Topics | Companies | Hint

Given the root of a binary tree and two integers `p` and `q`, return *the **distance** between the nodes of value* `p` *and value* `q` *in the tree.*

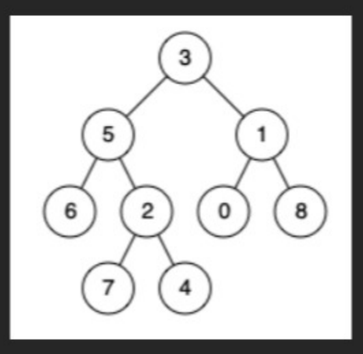
The **distance** between two nodes is the number of edges on the path from one to the other.

Example 1:



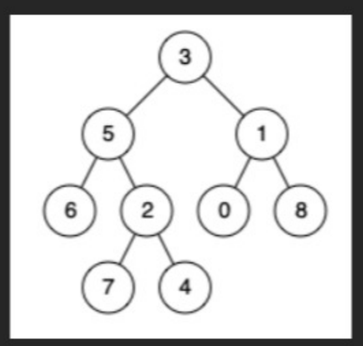

```
Input: root = [3,5,1,6,2,0,8,null,null,7,4], p = 5, q = 0
Output: 3
Explanation: There are 3 edges between 5 and 0: 5–3–1–0.
```

Example 2:




```
Input: root = [3,5,1,6,2,0,8,null,null,7,4], p = 5, q = 7
Output: 2
Explanation: There are 2 edges between 5 and 7: 5–2–7.
```

Example 3:




```
Input: root = [3,5,1,6,2,0,8,null,null,7,4], p = 5, q = 5
Output: 0
Explanation: The distance between a node and itself is 0.
```

Constraints:

- The number of nodes in the tree is in the range `[1, 10^4]`.
- `0 <= Node.val <= 10^9`
- All `Node.val` are **unique**.
- `p` and `q` are values in the tree.

Seen this question in a real interview before? 1/5

Yes No

Accepted 32K | Submissions 43.5K | Acceptance Rate 73.7%

Topics

Hash Table Tree Depth-First Search Breadth-First Search Binary Tree

Companies

0 - 6 months

Amazon 2

6 months ago

Google 2 Meta 2

Hint 1

Get the LCA of p and q.

Hint 2

The answer is the sum of distances between p-LCA and q-LCA

Similar Questions

Step-By-Step Directions From a Binary Tree Node to Another Medium

Discussion (6)