Problem Challenge 1

We'll cover the following

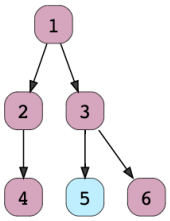
Tree Diameter (medium)

Given a binary tree, find the length of its diameter. The diameter of a tree is the number of nodes on the **longest path between any two leaf nodes**. The diameter of a tree may or may not pass through the root.

Note: You can always assume that there are at least two leaf nodes in the given tree.

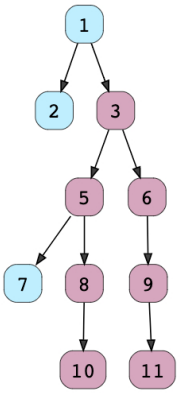
Example 1:

Output: 5
Explanation: The diameter of the tree is: [4, 2, 1, 3, 6]



Example 2:

Output: 7
Explanation: The diameter of the tree is: [10, 8, 5, 3, 6, 9, 11]



Try it yourself

Try solving this question here:

Java | Python3 | JS | C++

```
class TreeNode {
  int val;
  TreeNode left;
  TreeNode right;

  TreeNode(int x) {
    val = x;
  }
};

class TreeDiameter {

  public static int findDiameter(TreeNode root) {
    // TODO: Write your code here
    return -1;
  }

  public static void main(String[] args) {
    TreeNode root = new TreeNode(1);
    root.left = new TreeNode(2);
    root.right = new TreeNode(3);
    root.left.left = new TreeNode(4);
    root.right.left = new TreeNode(5);
```

```
24      root.right.right = new TreeNode(6);
25      System.out.println("Tree Diameter: " + TreeDiameter.findDiameter(root));
26      root.left.left = null;
27      root.right.left.left = new TreeNode(7);
28      root.right.left.right = new TreeNode(8);
```

Run Save Reset

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Count Paths for a Sum (medium)

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Solution Review: Problem Challenge 1

Mark as Completed