

543. Diameter of Binary Tree

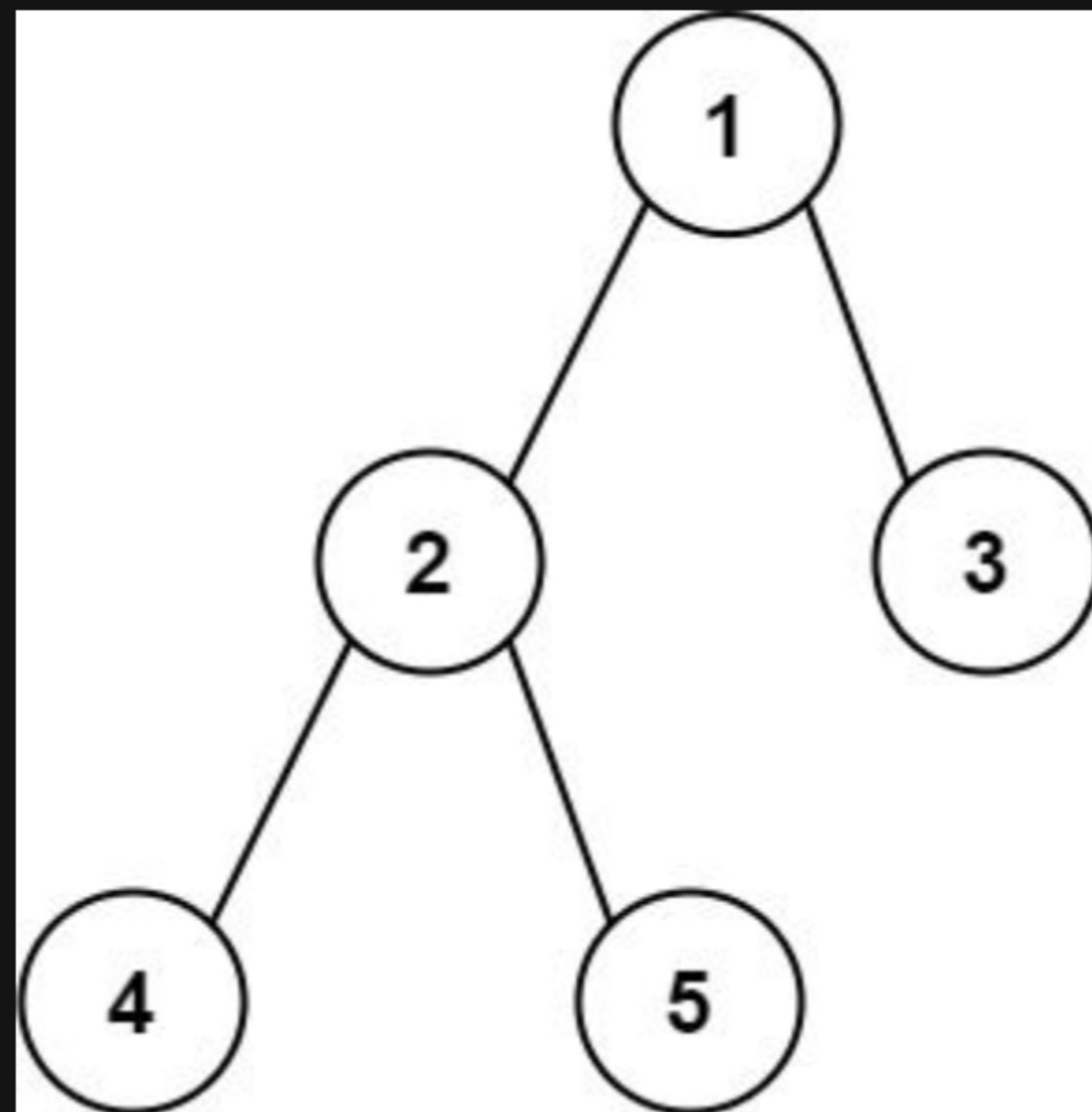
Description

Given the `root` of a binary tree, return *the length of the **diameter** of the tree*.

The **diameter** of a binary tree is the **length** of the longest path between any two nodes in a tree. This path may or may not pass through the `root`.

The **length** of a path between two nodes is represented by the number of edges between them.

Example 1:



Input: `root = [1,2,3,4,5]`

Output: 3

Explanation: 3 is the length of the path [4,2,1,3] or [5,2,1,3].

Example 2:

Input: `root = [1,2]`

Output: 1

Constraints:

- The number of nodes in the tree is in the range `[1, 104]`.
- `-100 <= Node.val <= 100`

