1522. Diameter of N-Ary Tree

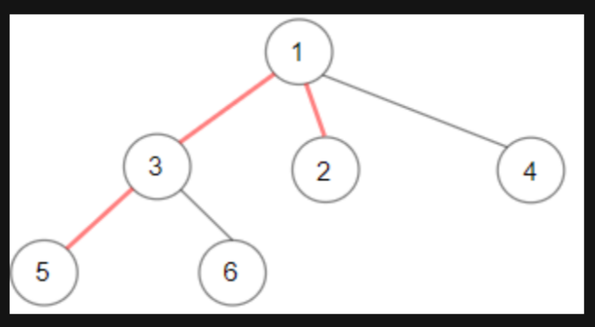
Description

Given a `root` of an `N-ary tree`, you need to compute the length of the diameter of the tree.

The diameter of an N-ary tree is the length of the **longest** path between any two nodes in the tree. This path may or may not pass through the root.

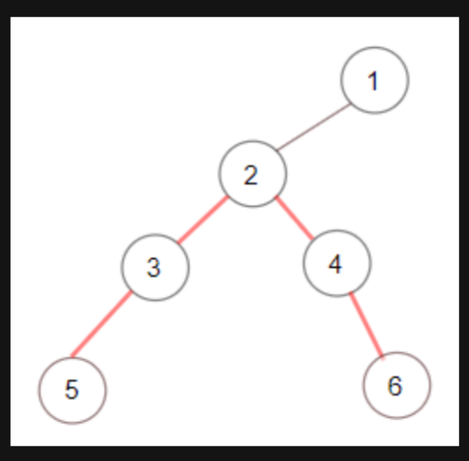
(*Nary-Tree input serialization is represented in their level order traversal, each group of children is separated by the null value.)*

Example 1:



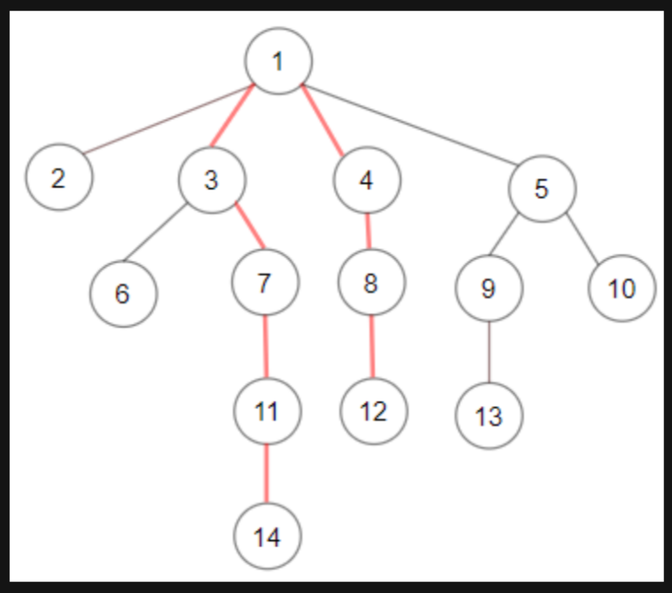

```
Input: root = [1,null,3,2,4,null,5,6]
Output: 3
Explanation: Diameter is shown in red color.
```

Example 2:




```
Input: root = [1,null,2,null,3,4,null,5,null,6]
Output: 4
```

Example 3:




```
Input: root = [1,null,2,3,4,5,null,null,6,7,null,8,null,9,10,null,null,11,null,12,null,13,null,null,14]
Output: 7
```

Constraints:

- The depth of the n-ary tree is less than or equal to `1000`.
- The total number of nodes is between `[1, 10^4]`.