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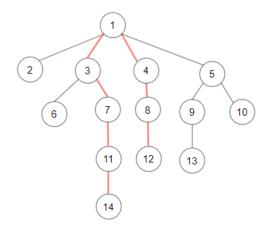
Example 2:

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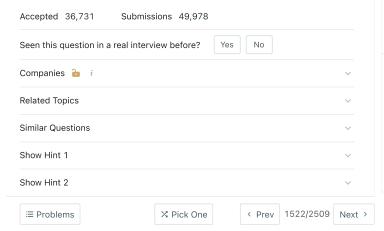**Output:** 4

Example 3:

Input: root =
[1,null,2,3,4,5,null,null,6,7,null,8,null,9,10,null,null,11,nu
Output: 7

Constraints:

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

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Seen this question in a real interview before? | Yes | No |

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i C++ ▼   Autocomplete   *i* {} ↺ ⚙ ⛶

```cpp
/*
// Definition for a Node.
class Node {
public:
    int val;
    vector<Node*> children;

    Node() {}

    Node(int _val) {
        val = _val;
    }

    Node(int _val, vector<Node*> _children) {
        val = _val;
        children = _children;
    }
};
*/

class Solution {
public:
    int diameter(Node* root,int &maxLen)
    {
        int maxi = 0,secondMaxi = 0;
        for(Node* children : root->children)
        {
            int len = diameter(children,maxLen);
            if(len>maxi)
            {
                secondMaxi = maxi;
                maxi = len;
            }
            else if(len>secondMaxi)
            {
                secondMaxi = len;
            }
        }
        maxLen = max(maxLen,maxi+secondMaxi);
        return maxi+1;
    }

    int diameter(Node* root) {
        int maxLen = 0;
        diameter(root,maxLen);
        return maxLen;
    }
};
```

NEW

Testcase   Run Code Result   Debugger 🔒   ⌄

Accepted   Runtime: 0 ms   ⓘ

Your input   [1,null,2,3,4,5,null,null,6,7,null,8,null,9,10,null,null,

Output | 7 | | Diff |

Expected | 7 |

Console...   Use Example   ⓘ   ▶ Run Code ^   Submit
              Testcases