# Maximum Width of Binary Tree

Given the root of a binary tree, return *the **maximum width** of the given tree*.

The **maximum width** of a tree is the maximum **width** among all levels.

The **width** of one level is defined as the length between the end-nodes (the leftmost and rightmost non-null nodes), where the null nodes between the end-nodes that would be present in a complete binary tree extending down to that level are also counted into the length calculation.

It is **guaranteed** that the answer will in the range of a **32-bit** signed integer.
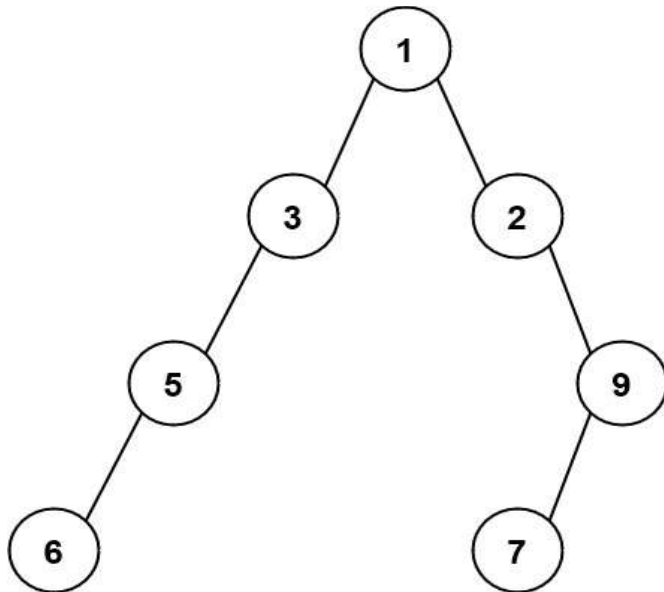
Example 1:
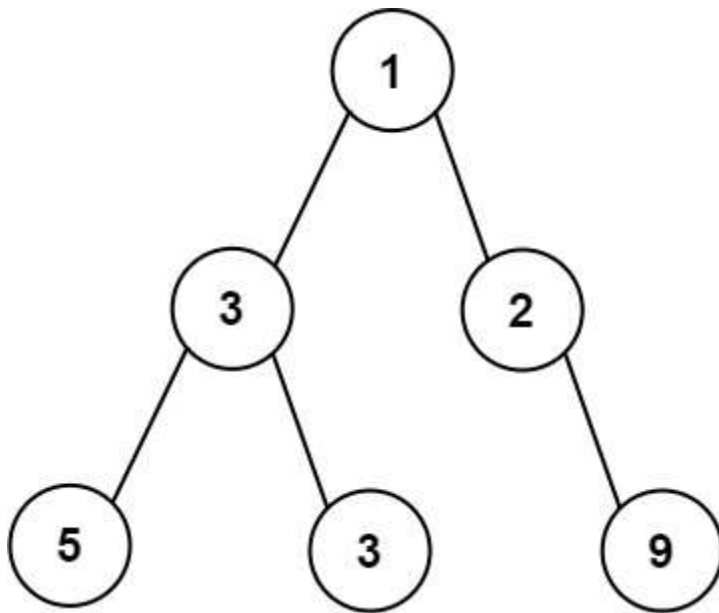
Input: root = [1,3,2,5,3,null,9]

Output: 4

Explanation: The maximum width exists in the third level with length 4 (5,3,null,9).
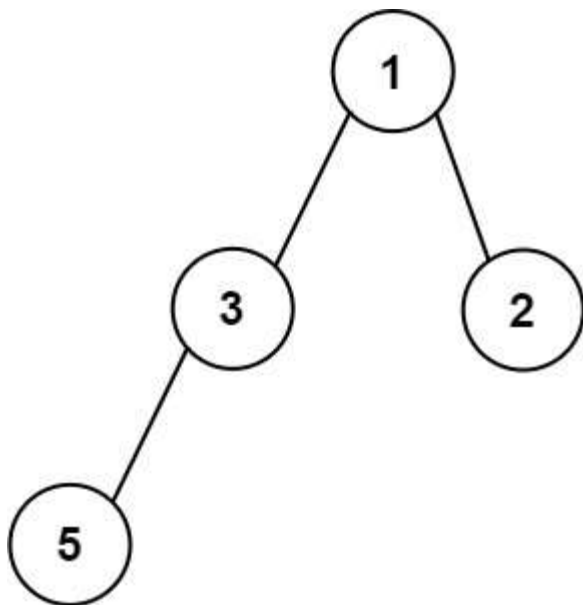
Example 2:

Input: root = [1,3,2,5,null,null,9,6,null,7]

Output: 7

Explanation: The maximum width exists in the fourth level with length 7 (6,null,null,null,null,null,7).

Example 3:

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

Output: 2

Explanation: The maximum width exists in the second level with length 2 (3,2).

Constraints:

- The number of nodes in the tree is in the range [1, 3000].

- -100 <= Node.val <= 100