2583. Kth Largest Sum in a Binary Tree

Description

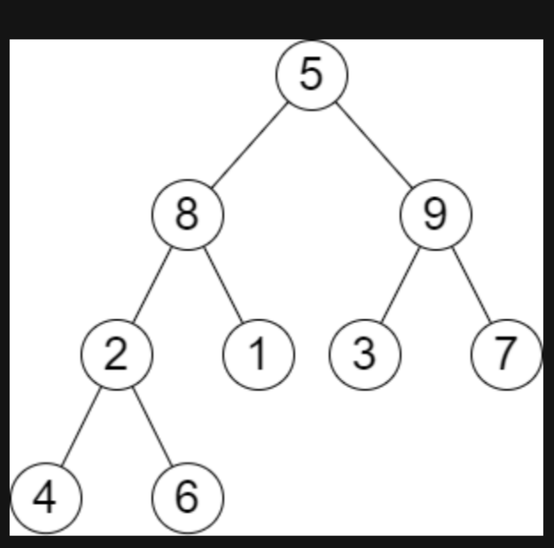
You are given the `root` of a binary tree and a positive integer `k`.

The **level sum** in the tree is the sum of the values of the nodes that are on the **same** level.

Return *the* `k^th` ***largest*** *level sum in the tree (not necessarily distinct)*. If there are fewer than `k` levels in the tree, return `-1`.

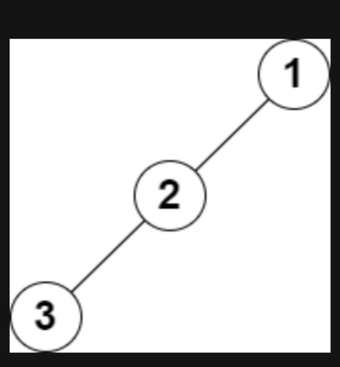
Note that two nodes are on the same level if they have the same distance from the root.

Example 1:




```
Input: root = [5,8,9,2,1,3,7,4,6], k = 2
Output: 13
Explanation: The level sums are the following:
- Level 1: 5.
- Level 2: 8 + 9 = 17.
- Level 3: 2 + 1 + 3 + 7 = 13.
- Level 4: 4 + 6 = 10.
The 2nd largest level sum is 13.
```

Example 2:




```
Input: root = [1,2,null,3], k = 1
Output: 3
Explanation: The largest level sum is 3.
```

Constraints:

- The number of nodes in the tree is `n`.
- `2 <= n <= 10^5`
- `1 <= Node.val <= 10^6`
- `1 <= k <= n`