Binary Tree Right Side View

Key Idea:

You need to collect the rightmost node at each level of the binary tree:

- Traverse level by level (BFS) or depth-first (DFS) prioritizing the right child.
- For BFS: Take the last node in each level.
- For DFS: Visit right first, then left; the first node you visit at a depth is the visible one.

Approach 1: BFS (Level Order):

1. Use a queue for level-order traversal.
2. For each level:
    - Iterate over nodes.
    - Add the last node's value (rightmost) to the result.

Complexity:

- Time: O(n) – visit each node once.
- Space: O(n) – queue size in worst case.

Approach 2: DFS (Right-First):

1. Perform preorder traversal: root → right → left.
2. If depth == result size, push current node (first node at that level).

Complexity:

- Time: O(n)
- Space: O(h) recursion depth (h = height of tree).