

Given the root of a binary tree, return the view you would see if you were standing on the right hand side of it ordered from top to bottom (assume a node blocks all nodes to the left of it so you can only see the right-most node of a level).

```
# breadth first search
# for each level, go L to Right
# append the result accordingly
# []
# [ 1]
#[1, 2] see 5, update so now [1,5]
# [ 1,5,3] see 4 update [1,5,4]
# if we go to a new level, append otherwise replace
```

```
def right_side_view(root_node):
    if not root_node:
        return []
    queue = deque([(root, 0)])
    visited = seen()
    result = []
    previous_level = -1
    while queue:
        # current = deque.pop_left
        # current_node = current[0]
        # current_level = current[1]
        current_node, current_level = deque.popleft()
        if current_level != previous_level:
            result.append(current_node)
        else:
            result[-1] = current_node
        if current_node.left:
            queue.append((current_node.left, current_level + 1))
        if current_node.right:
            queue.append((current_node.right, current_level + 1))
        previous_level = current_level
    return result
```

$Q = (1, 0)$
 $(2, 1) (5, 1)$

$(3, 2) (4, 2)$

$(6, 2)$

*

BFS

DFS

BFS

←

