

# count of number of single child node

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class TreeNode:
    def __init__(self, val):
        self.data = val
        self.left = None
        self.right = None

class Pair:
    def __init__(self, level, node):
        self.level = level
        self.node = node

import collections

def nodeWithSingleChild(root):
    if root is None:
        return 0
    if root.left is None and root.right is None:
        return 0
    left = nodeWithSingleChild(root.left)
    right = nodeWithSingleChild(root.right)
    ans = left + right
    if root.left is None or root.right is None:
        ans += 1
    return ans

root = TreeNode(1)
root.left = TreeNode(2)
root.right = TreeNode(3)
root.left.left = TreeNode(4)
# root.left.right = TreeNode(5)
# root.right.left = TreeNode(6)
root.right.right = TreeNode(7)

res = []
print(nodeWithSingleChild(root))
```

