The thief has found himself a new place for his thievery again. There is only one entrance to this area, called the "root." Besides the root, each house has one and only one parent house. After a tour, the smart thief realized that "all houses in this place forms a binary tree". It will automatically contact the police if two directly-linked houses were broken into on the same night.

Determine the maximum amount of money the thief can rob tonight without alerting the police.

**Example 1:**

**Input:** [3,2,3,null,3,null,1]

3

/ \

2 3

\ \

3 1

**Output:** 7

**Explanation:** Maximum amount of money the thief can rob = 3 + 3 + 1 = **7**.

**Example 2:**

**Input:** [3,4,5,1,3,null,1]

  3

/ \

4 5

/ \ \

1 3 1

**Output:** 9

**Explanation:** Maximum amount of money the thief can rob = 4 + 5 = **9**.