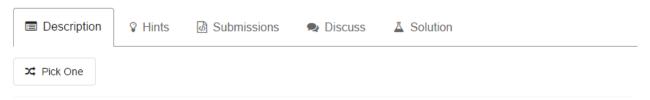
112. Path Sum



Given a binary tree and a sum, determine if the tree has a root-to-leaf path such that adding up all the values along the path equals the given sum.

Note: A leaf is a node with no children.

Example:

Given the below binary tree and sum = 22,

```
5
/\
4 8
//\
11 13 4
/\\
7 2 1
```

return true, as there exist a root-to-leaf path 5->4->11->2 which sum is 22.

```
public class L112 {

public class TreeNode {
    int val;
    TreeNode left;
    TreeNode right;
    TreeNode(int x) { val = x; }
}

public boolean hasPathSum(TreeNode root, int sum) {
    if(root == null)
        return false;
    if(root.left == null && root.right == null && sum - root.val == 0)
        return true;

    return hasPathSum(root.left, sum - root.val) || hasPathSum(root.right, sum - root.val);
}
```