112. Path Sum

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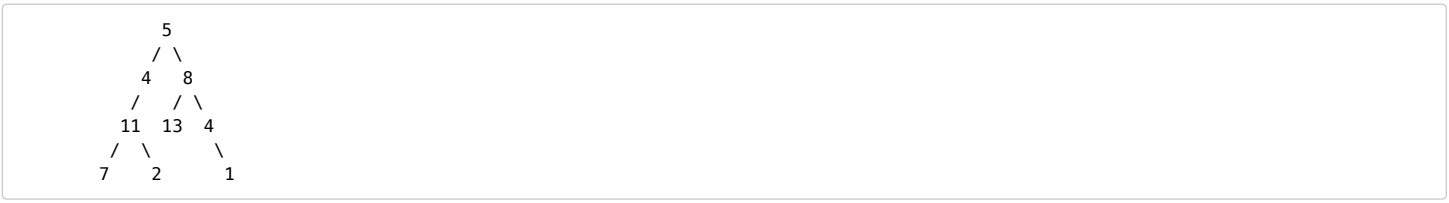
Total Accepted: **142022** Total Submissions: **429973** Difficulty: **Easy** Contributors: **Admin**

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.

For example:

Given the below binary tree and `sum = 22`,



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

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Notes

C++

```cpp
/**
 * Definition for a binary tree node.
 * struct TreeNode {
 *     int val;
 *     TreeNode *left;
 *     TreeNode *right;
 *     TreeNode(int x) : val(x), left(NULL), right(NULL) {}
 * };
 */
class Solution {
public:
    bool hasPathSum(TreeNode* root, int sum) {
        if(root==NULL) return false;
        if(!root->left&&!root->right&&root->val==sum) return true;
        sum -= root->val;
        return hasPathSum(root->left,sum)||hasPathSum(root->right,sum);
    }
};
```

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