

222. Count Complete Tree Nodes

题目描述: <https://leetcode.com/problems/count-complete-tree-nodes/>

给定一个完全二叉树，求这个完全二叉树中的结点个数。

解题思路:

如果本树不是满的，则迭代去求左子树和右子树的结点个数。

代码:

```
/**
 * 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:
    int countNodes(TreeNode* root) {
        if(root == NULL)
            return 0;
        int hl = 0, hr = 0;
        TreeNode *l = root, *r = root;
        while(l) {
            hl++;
            l = l -> left;
        }
        while(r) {
            hr++;
            r = r -> right;
        }
        if(hl == hr) {
            return pow(2, hl) - 1;
        }
        return 1 + countNodes(root->left) + countNodes(root->right);
    }
};
```

