/\*\*

\* Definition for a binary tree node.

\* struct TreeNode {

\* int val;

\* struct TreeNode \*left;

\* struct TreeNode \*right;

\* };

\*/

typedef struct TreeNode TreeNode;

TreeNode\* find( int\* preorder, int\* inorder, int left , int right , int \*indexCount){

if(left >= right){

return NULL;

}

TreeNode\* root = (TreeNode\*)malloc(sizeof(TreeNode));

root->val = preorder[\*indexCount];

int mid=0;

for(int j = left ; j < right ; j++){//比對preorder[\*indexCount]是在inorder[j]哪個，切出mid

if( inorder[j] == preorder[\*indexCount] ){

mid=j;

break;

}

}

(\*indexCount)++;//在preorder[]中一個個檢查

root->left = find(preorder,inorder,left ,mid ,indexCount);

root->right = find(preorder,inorder,mid+1,right,indexCount);

return root;

}

struct TreeNode\* buildTree(int\* preorder, int preorderSize, int\* inorder, int inorderSize){

struct TreeNode \*sol=NULL;

int indexCount=0;

sol=find(preorder,inorder,0,inorderSize,&indexCount);

return sol;

}