

## Build Tree from Preorder & Inorder

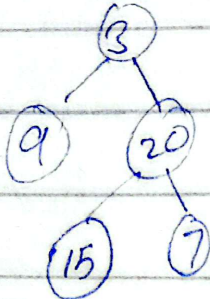
preorder = [3, 9, 20, 15, 7]

root, left, right

?

Inorder = [9, 3, 15, 20, 7]

left, root, right  
L M R



Pseudocode

```
Buildtree(&Preorder[], &Inorder[], &preIdx, left, right) {  
    if (left > right) return NULL  
    Node* root = preorder[preIdx]
```

preIdx++

inIdx = search(inorder, left, right, preorder[preIdx])

root->left = BT(preorder, left, inorder, preIdx, inIdx-1)

root->right = BT(preorder, right, inorder, preIdx, inIdx+1)

return root;

}

search(inorder, val, left, right)  
{  
 idx (inIdx)