

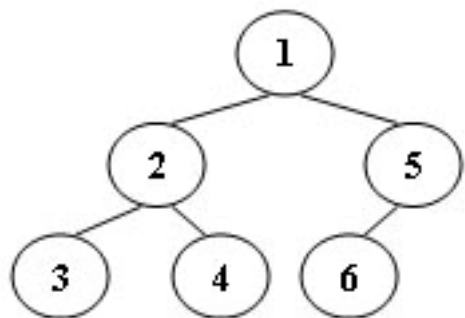
# 第十讲 习题选讲

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## 03-3. Tree Traversals Again

# 题意理解

- 非递归中序遍历
  - Push的顺序为先序遍历
  - Pop的顺序给出中序遍历

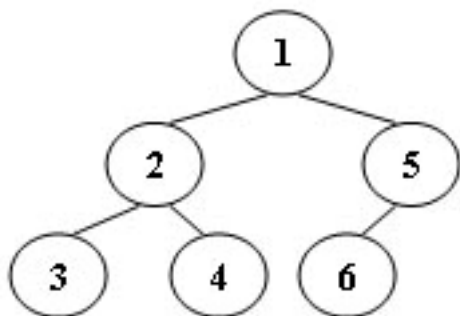
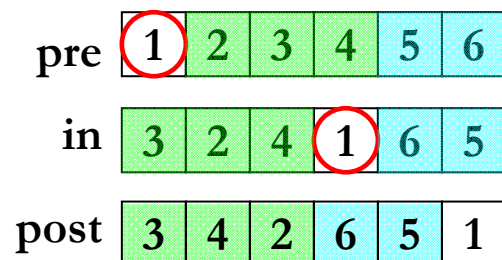


Sample Input:

```
6
Push 1
Push 2
Push 3
Pop
Pop
Push 4
Pop
Pop
Push 5
Push 6
Pop
Pop
```

pre	1	2	3	4	5	6
in	3	2	4	1	6	5

# 核心算法



```
void solve( int preL, int inL, int postL, int n )
{
    if (n==0) return;
    if (n==1) {post[postL] = pre[preL]; return;}
    root = pre[preL];
    post[postL+n-1] = root;
    for (i=0; i<n; i++)
        if (in[inL+i] == root) break;
    L = i; R = n-L-1;
    solve(preL+1, inL, postL, L);
    solve(preL+L+1, inL+L+1, postL+L, R);
}
```