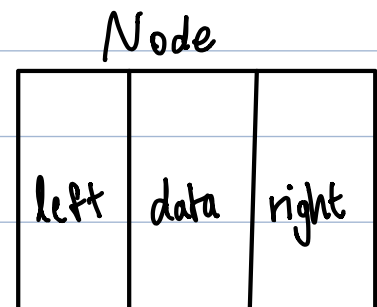
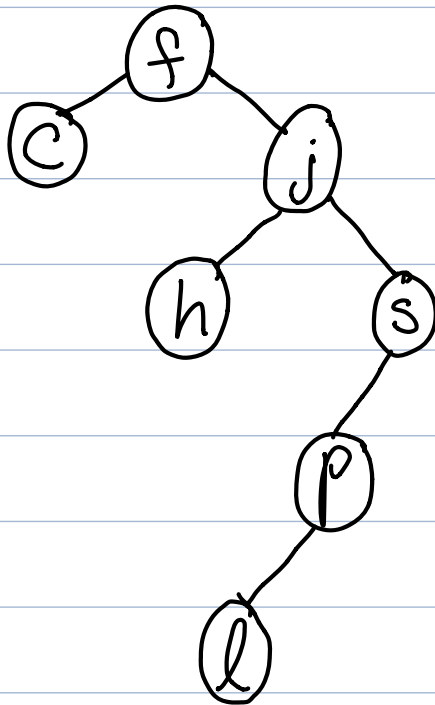


f, j, h, s, p, c, l



BST

insert (String key)

{

if (mRoot == null)

{

Node

insert (key)

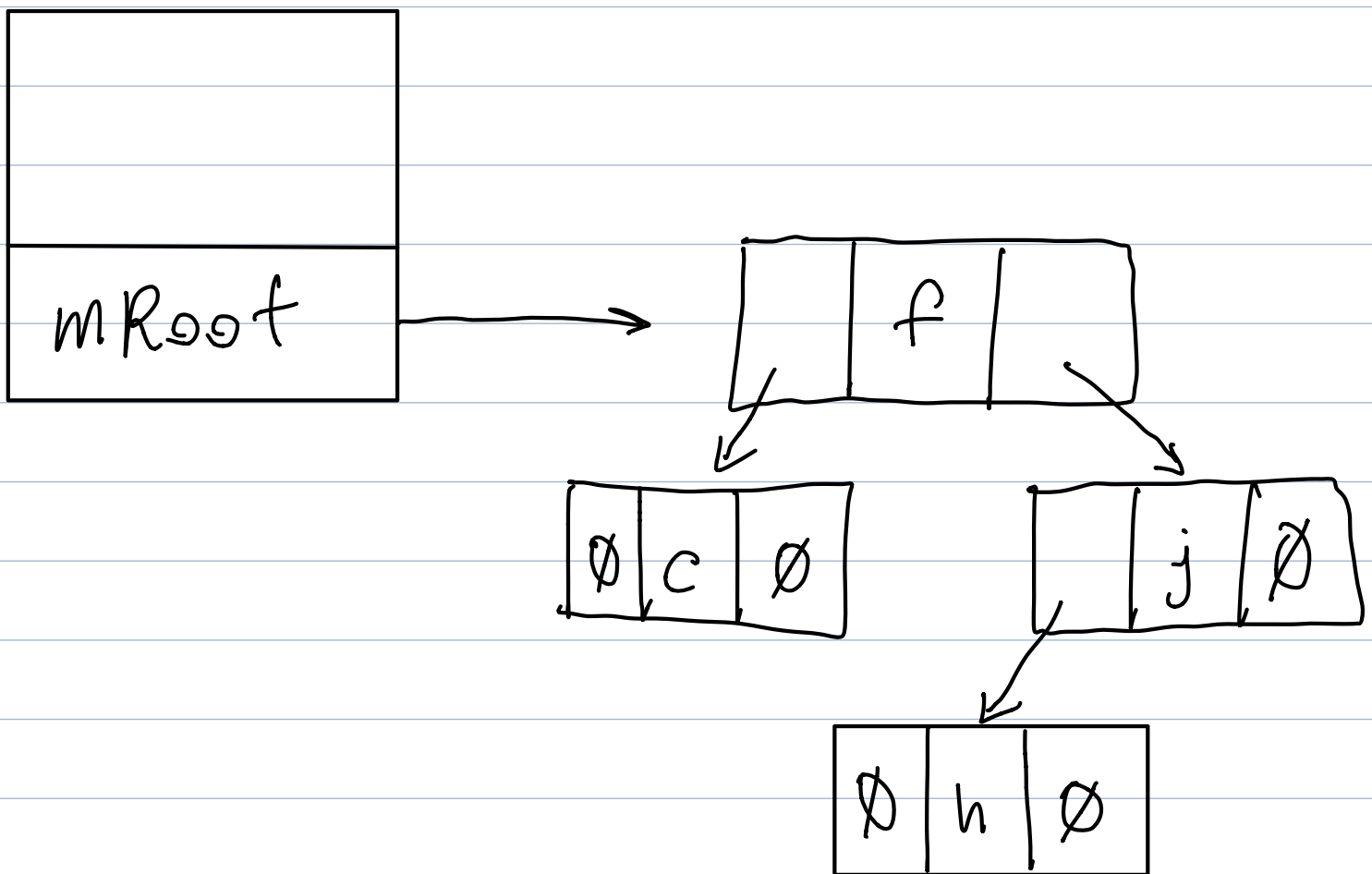
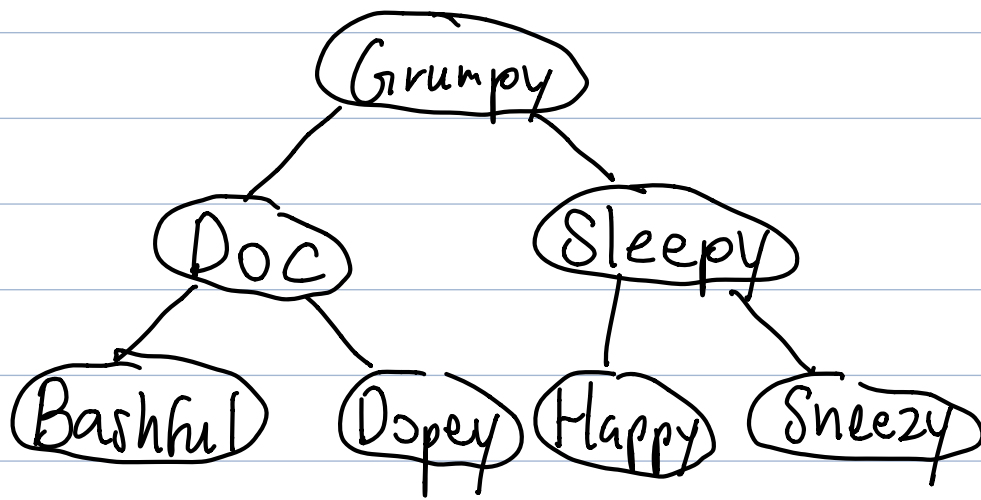
{

if (key.compareTo(mData) < 0)

{

```
mRoot = new Node(key);  
{  
else  
{  
    mRoot.insert(key);  
}  
}
```

```
if (mLeft == null)  
{  
    mLeft = new Node(key);  
}  
else  
{  
    mLeft.insert(key);  
}  
}  
else  
{  
    if (mRight == null)  
    {  
        mRight = new Node(key);  
    }  
    else  
    {  
        mRight.insert(key);  
    }  
}  
}
```

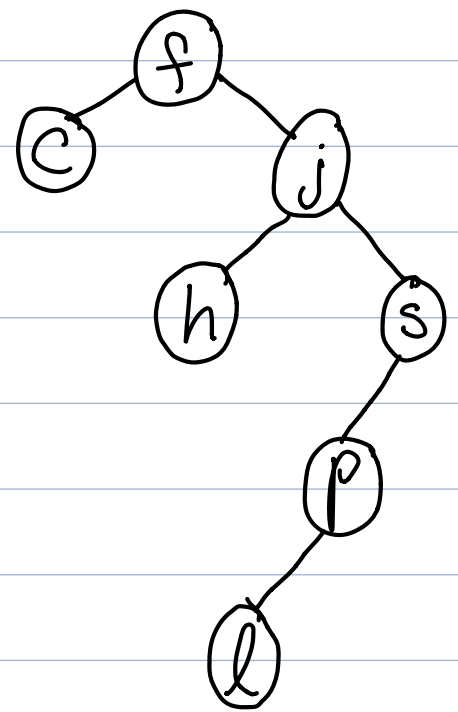


BST

traverse (TraversalType order)  
{

System.out.println (order + " tree traversal");  
if (mRoot == null) return;  
mRoot.traverse(order);

}



PREORDER (visit, left, right)  
f, c, j, h, s, p, l

INORDER (left, visit, right)  
c, f, h, j, l, p, s


POSTORDER (left, right, visit)  
c, h, l, p, s, j, f

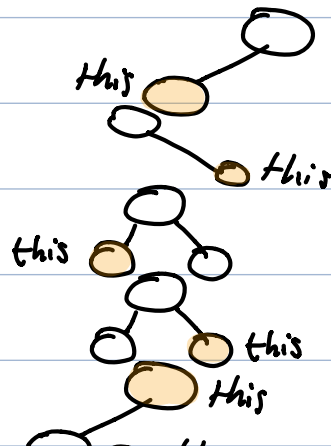
getCount (audio)

getCount  $\rightarrow$  POSTORDER,

## REMOVE



- ① Leaf + Root  this
- ② Leaf + no sibling + left
- ③ Leaf + no sibling + right
- ④ Leaf + Left + Sibling
- ⑤ Leaf + Right + Sibling
- ⑥ Int. Node Root + Left only (i.n.)

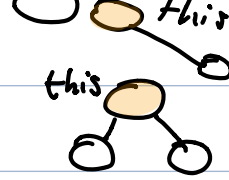


⑦ I.N. Root + Right Only

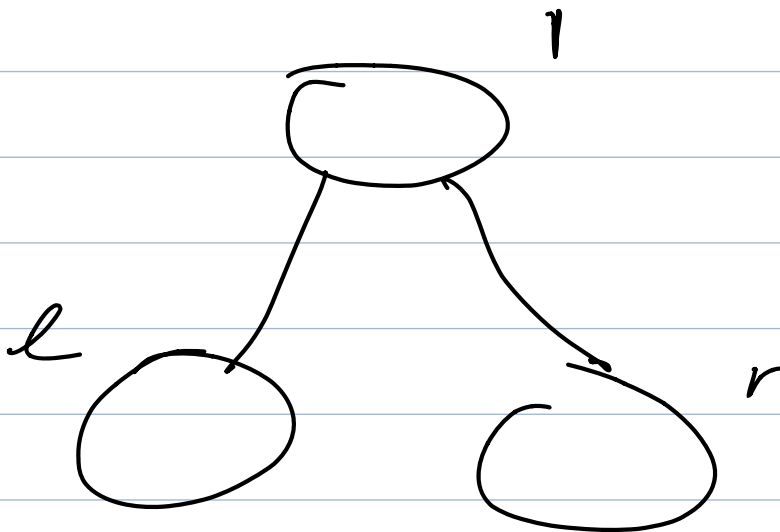
⑧ I.N. Root, Left + Right

⑨ Rpt. 6-8 except w/ non-root + left

⑩ Rpt. 6-8 except w/ non-root + right



# NO O-NOTATION ON FINAL!



$1 + l.\text{count}() + r.\text{count}()$