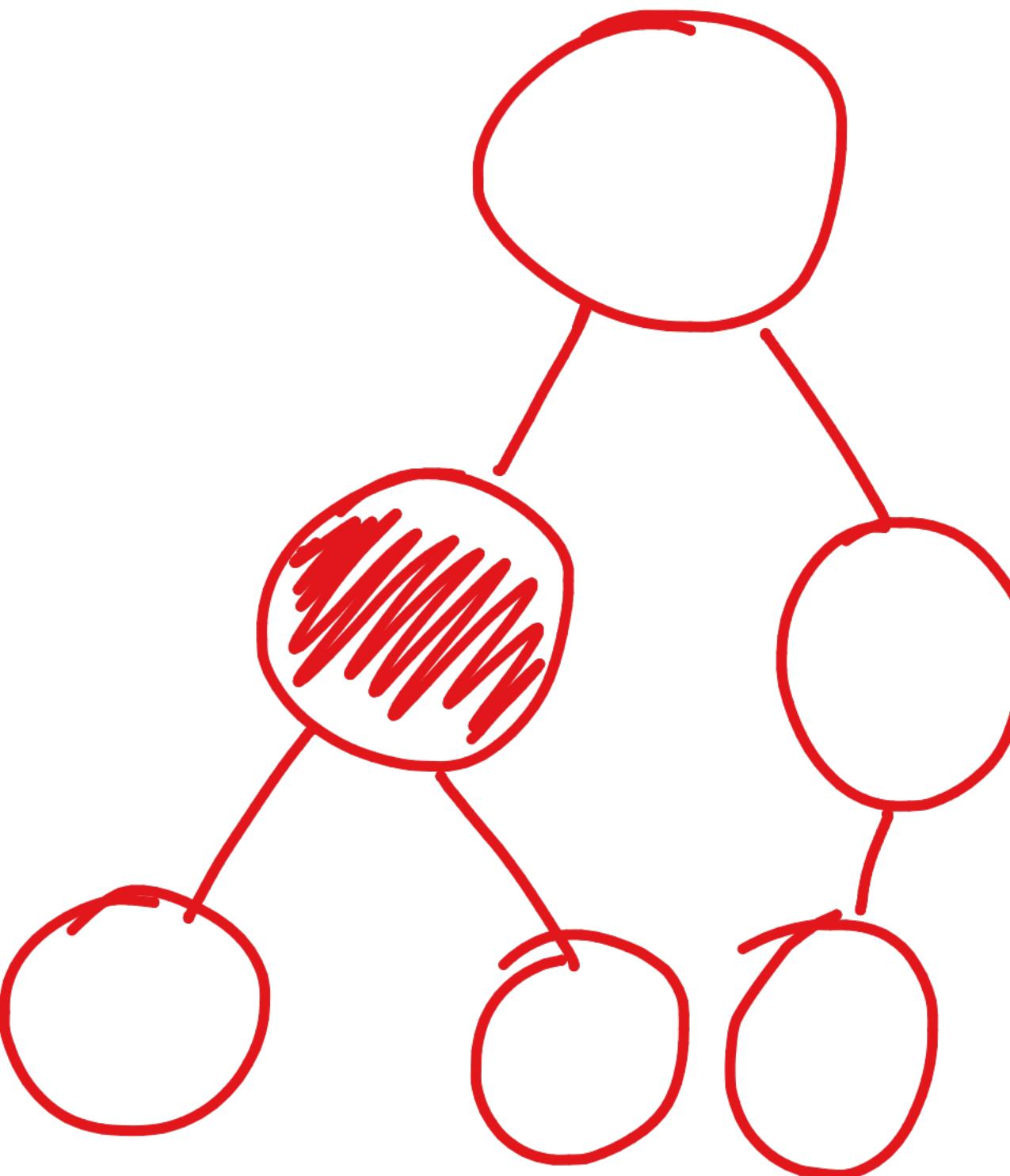
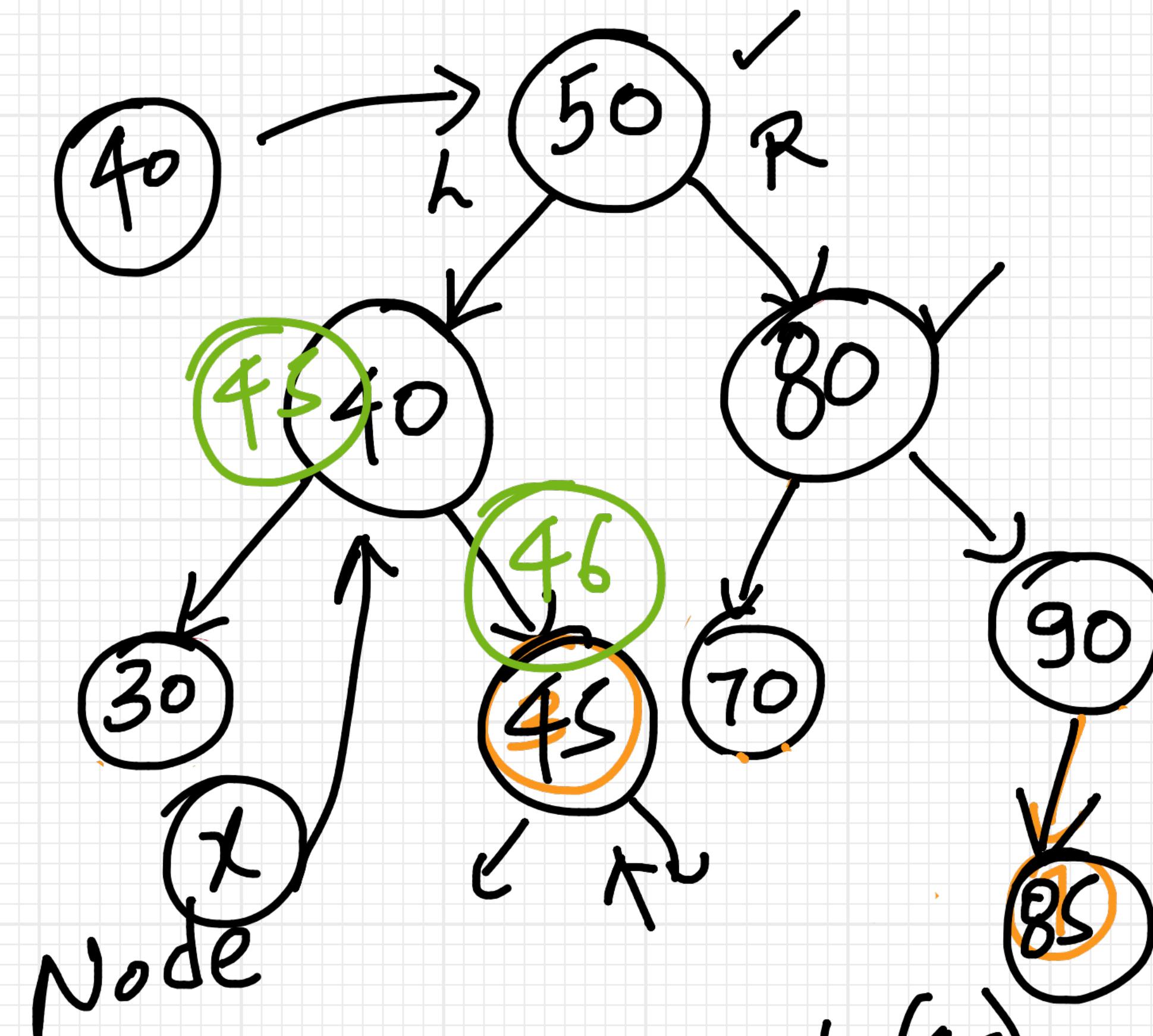


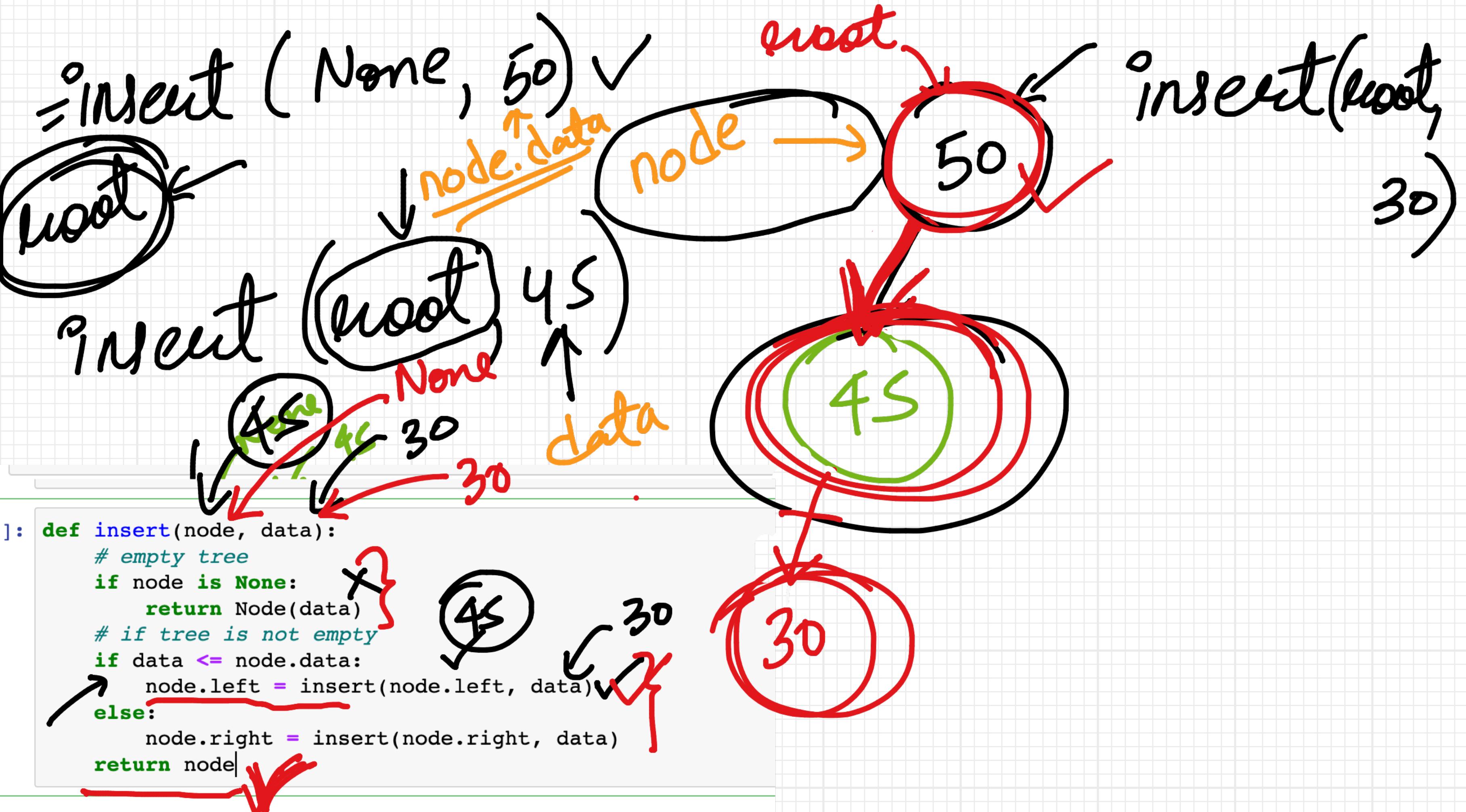
Node

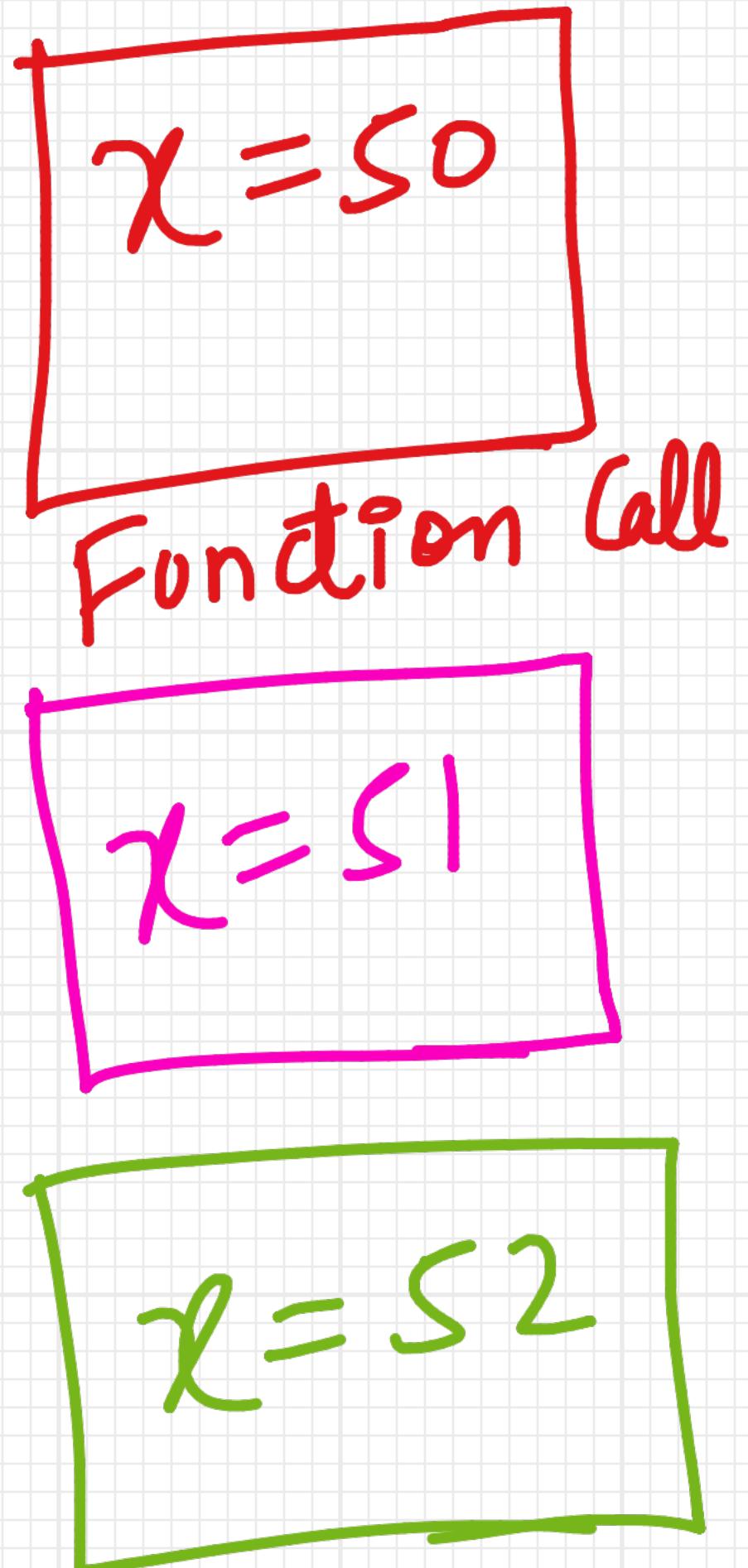
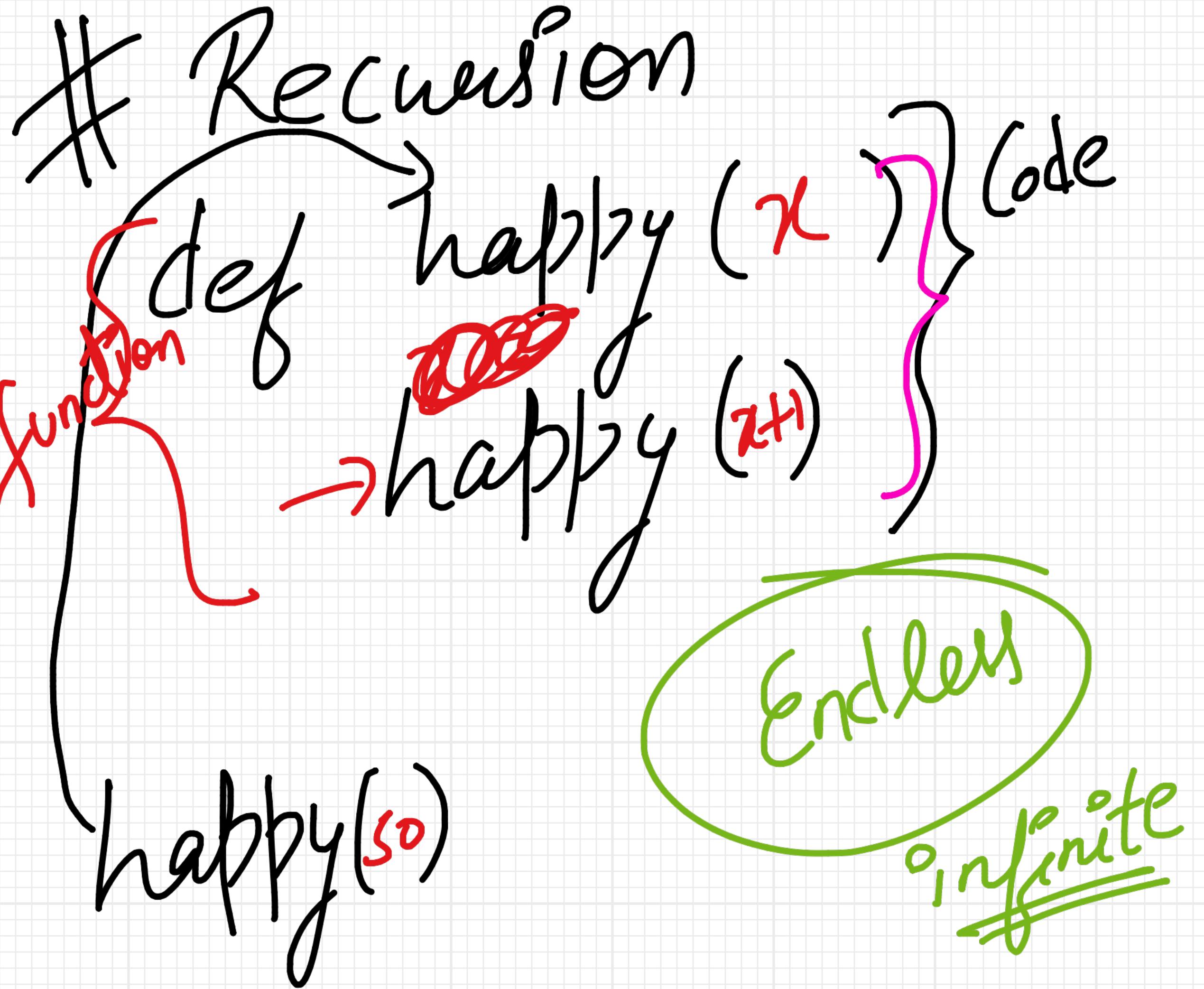


insert 50 ✓
 insert 40 ✓
 insert 45
 insert 36 ✓
 insert 80 ✓
 insert 70 ✓
 insert 90 ✓
 insert 45 ✓
 insert 46
 insert 85



R.Eight = Node(45)



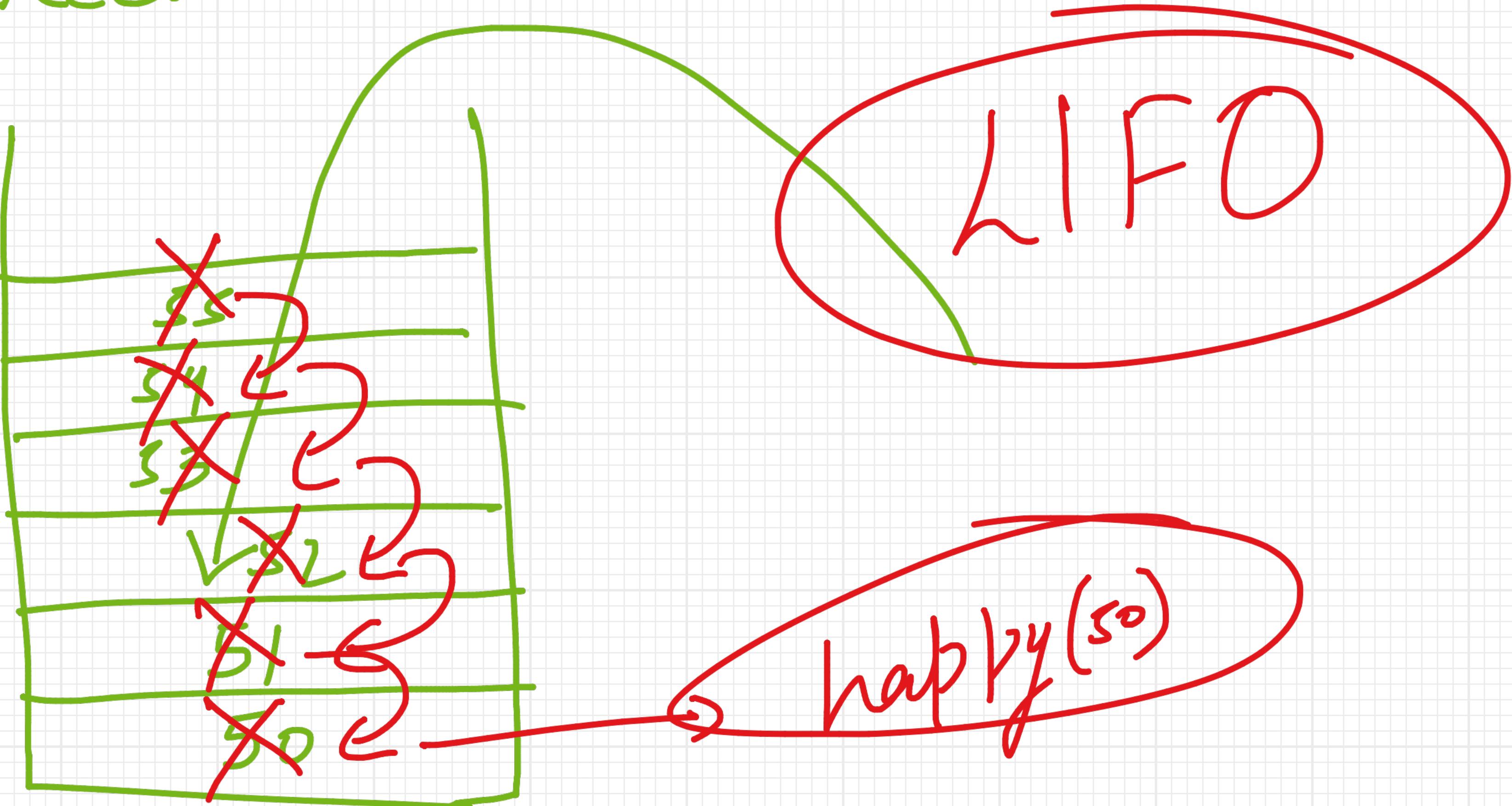


How to end a recursion
→ exit condition (if)

```
def happy(x)
    if x == 55:
        return None
    else:
        return happy(x+1)

y = happy(50)
```

Recursive Function Calls



```

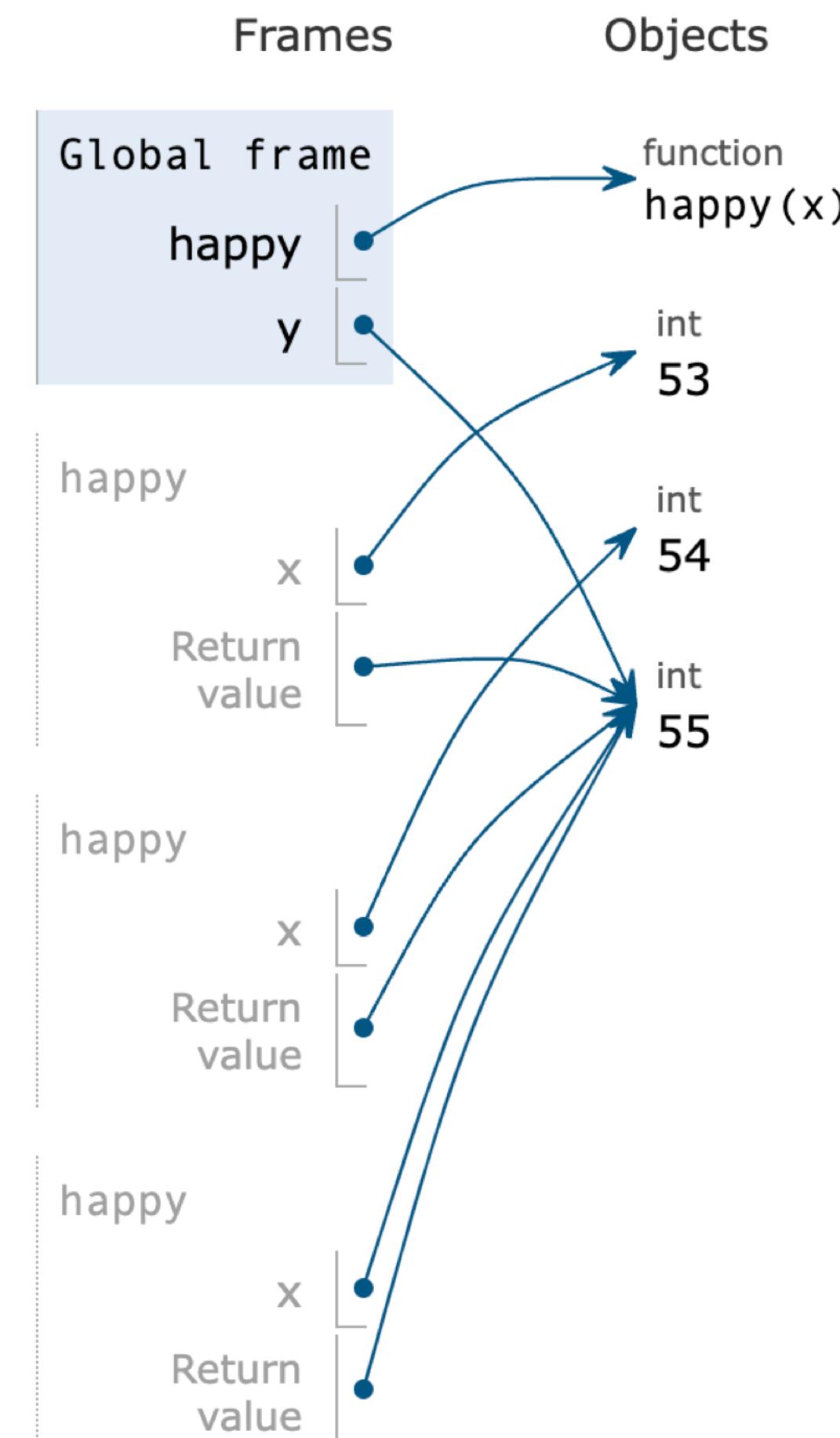
1 def happy(x):
2     if x == 55:
3         return x
4     return happy(x+1)
5
6 y = happy(53)
7 print(y)
8

```



- line that just executed
- next line to execute

55

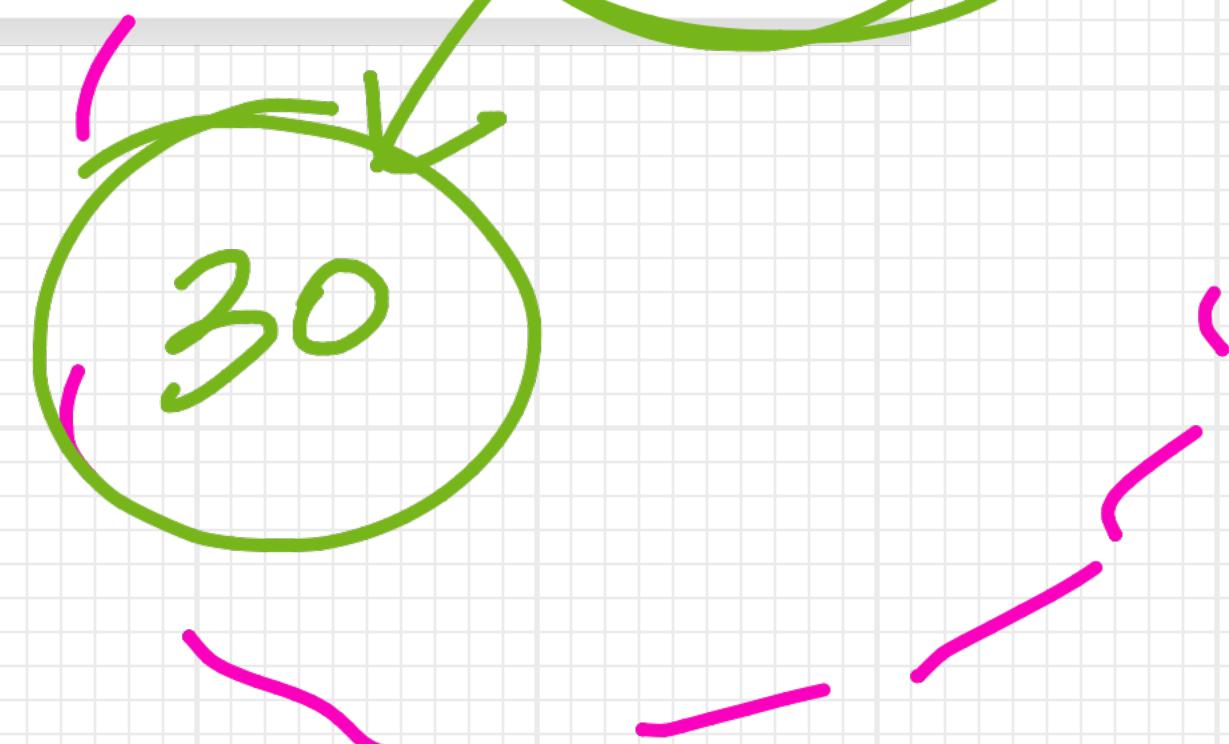
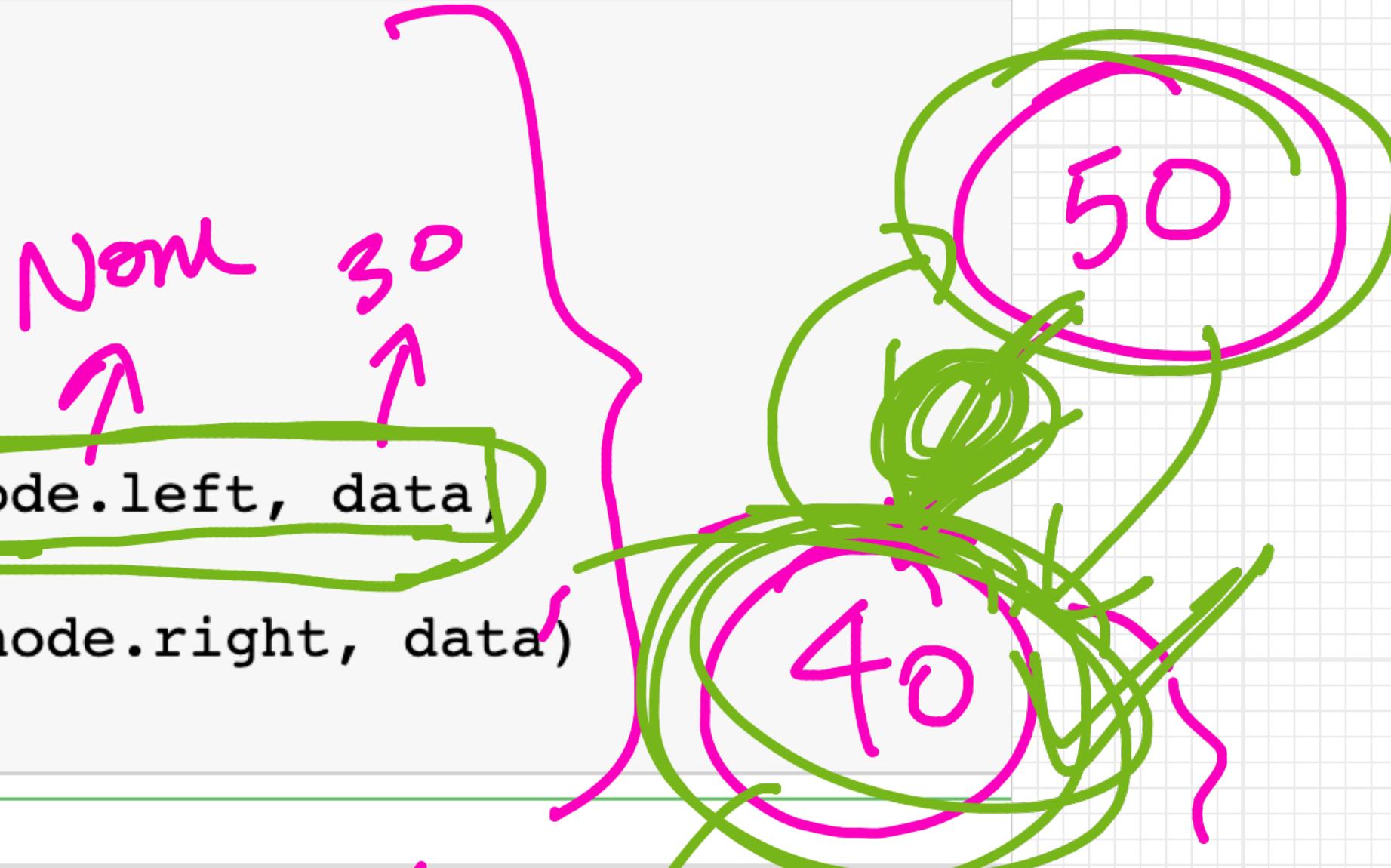


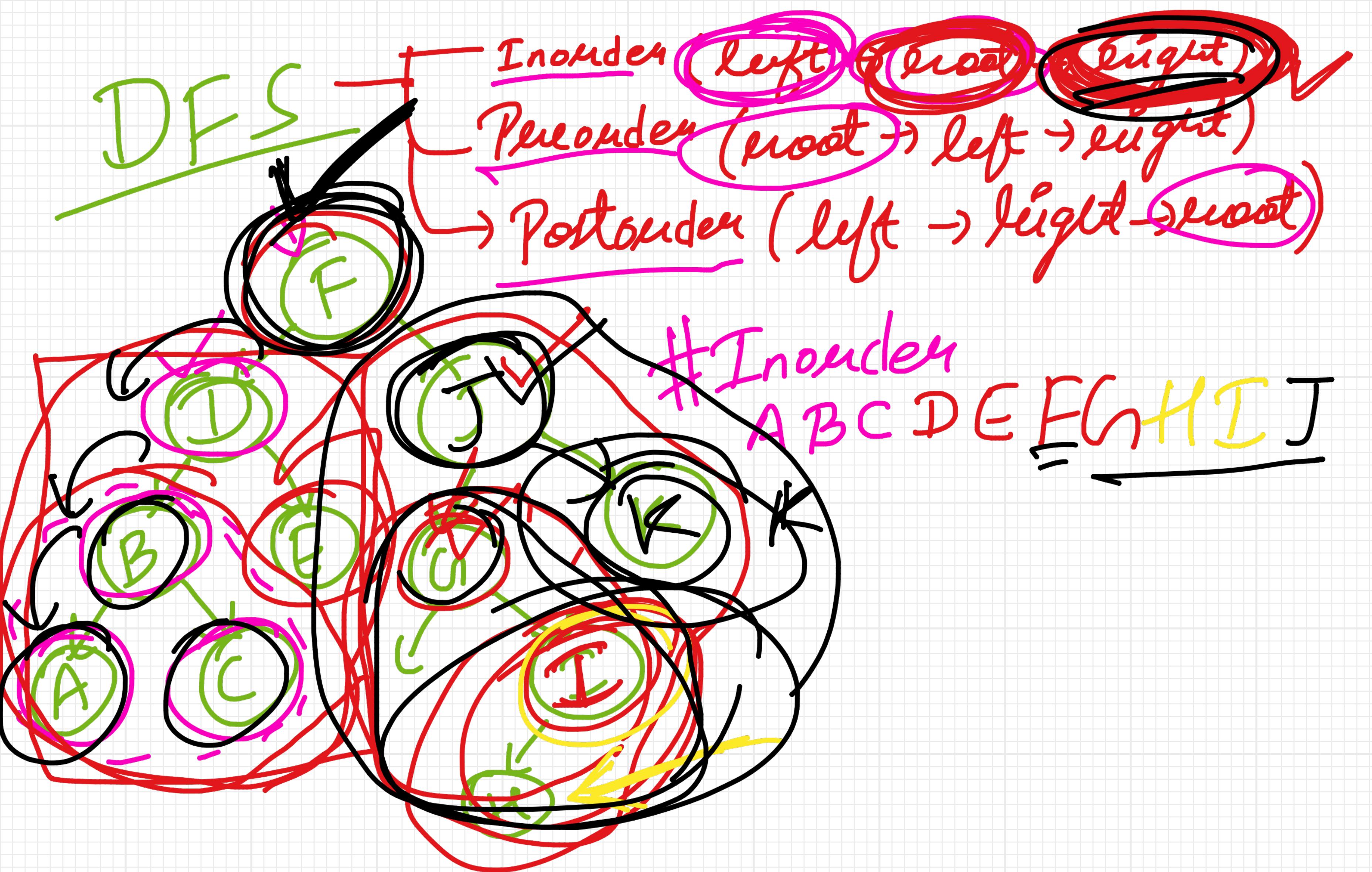
```

def insert(node, data):
    # empty tree
    if node is None:
        return Node(data)
    # if tree is not empty
    if data <= node.data:
        node.left = insert(node.left, data)
    else:
        node.right = insert(node.right, data)
    return node

```

node = insert(





Inorder

left

point
current
root

right

explore

