

# Delete\_item

item = 13

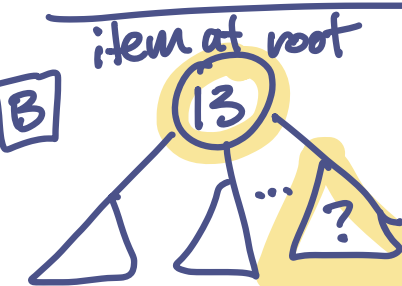
Scenario

Recursive calls  
+ what they mutate/  
return

What we do

**A** empty tree

return False



merge?

later

**C** one node +  
root == 13

```
graph TD; 13((13));
```

make this an  
empty tree

return True

one node

**D** 42

```
graph TD; 42((42));
```

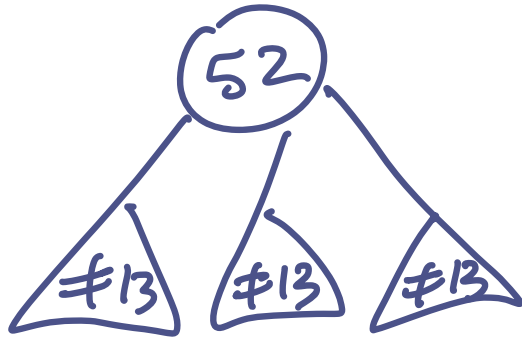
?

return False

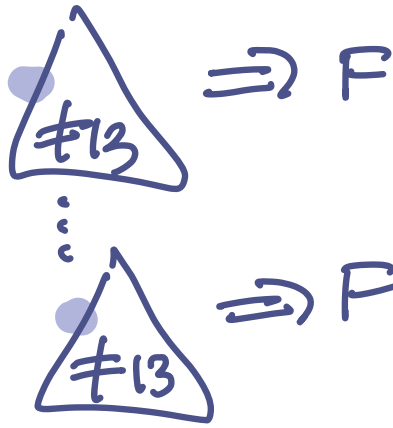
iterate over  
all nodes

⇒ F

(E) more than 1 node, no 13



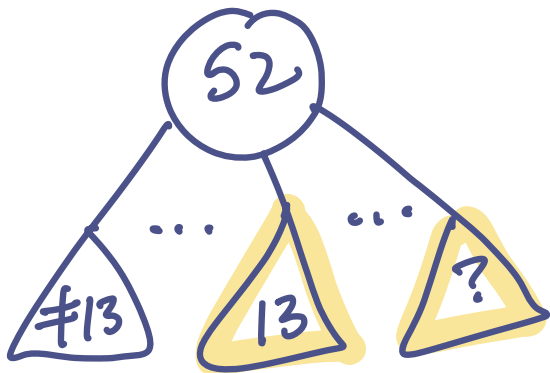
≠13



subtrees.  
if we get back  
no True  
return False

merge

(F) more than 1 node, 13 is in a subtree



iterate over  
subtrees  
if we back  
a True  
return True  
+  
STOP