

# CS180 - AVL trees

Note Title

4/18/2011

## Announcements

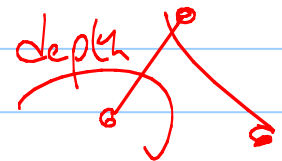
- Program due tonight
- office hours: 1:30-3:30  
also tutoring today

Graft.cpp

Strategy: (for unconverted)

Base Case:

'd' then 'u'  $\Rightarrow$  leaf  
return 0



Recursive step:

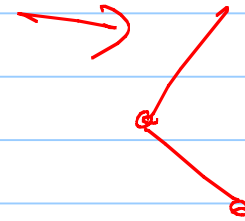
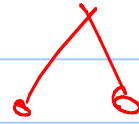
'd'  $\rightarrow$  'd', call depth(it)

while (\*i == 'd')  
call depth(i)  
return max + 1

Strategy: (for converted)

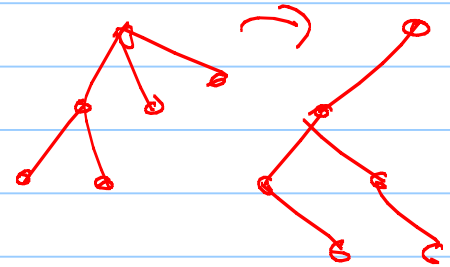
Base Case:

if no children & no sibling  
return 0

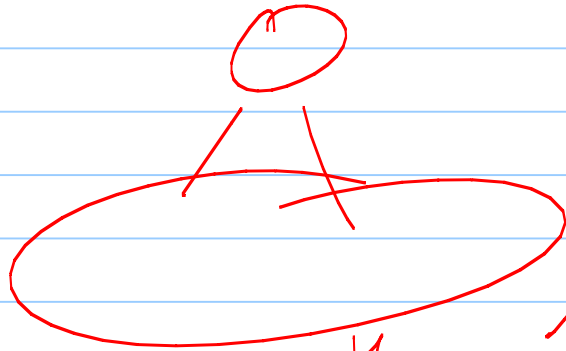


Recursive step:

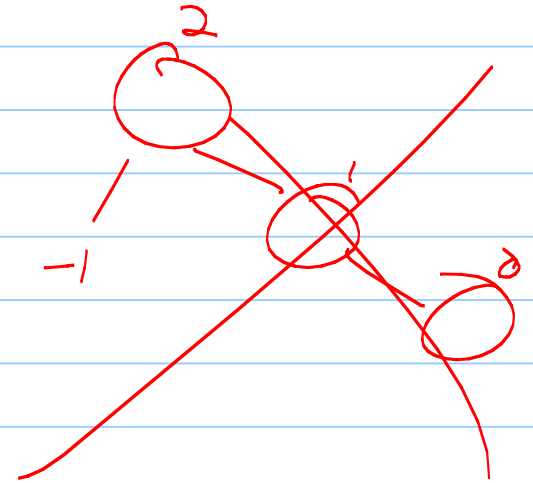
find leftmost child  
call (converted) depth  
find next sibling  
call (conv.) depth  
return max + 1

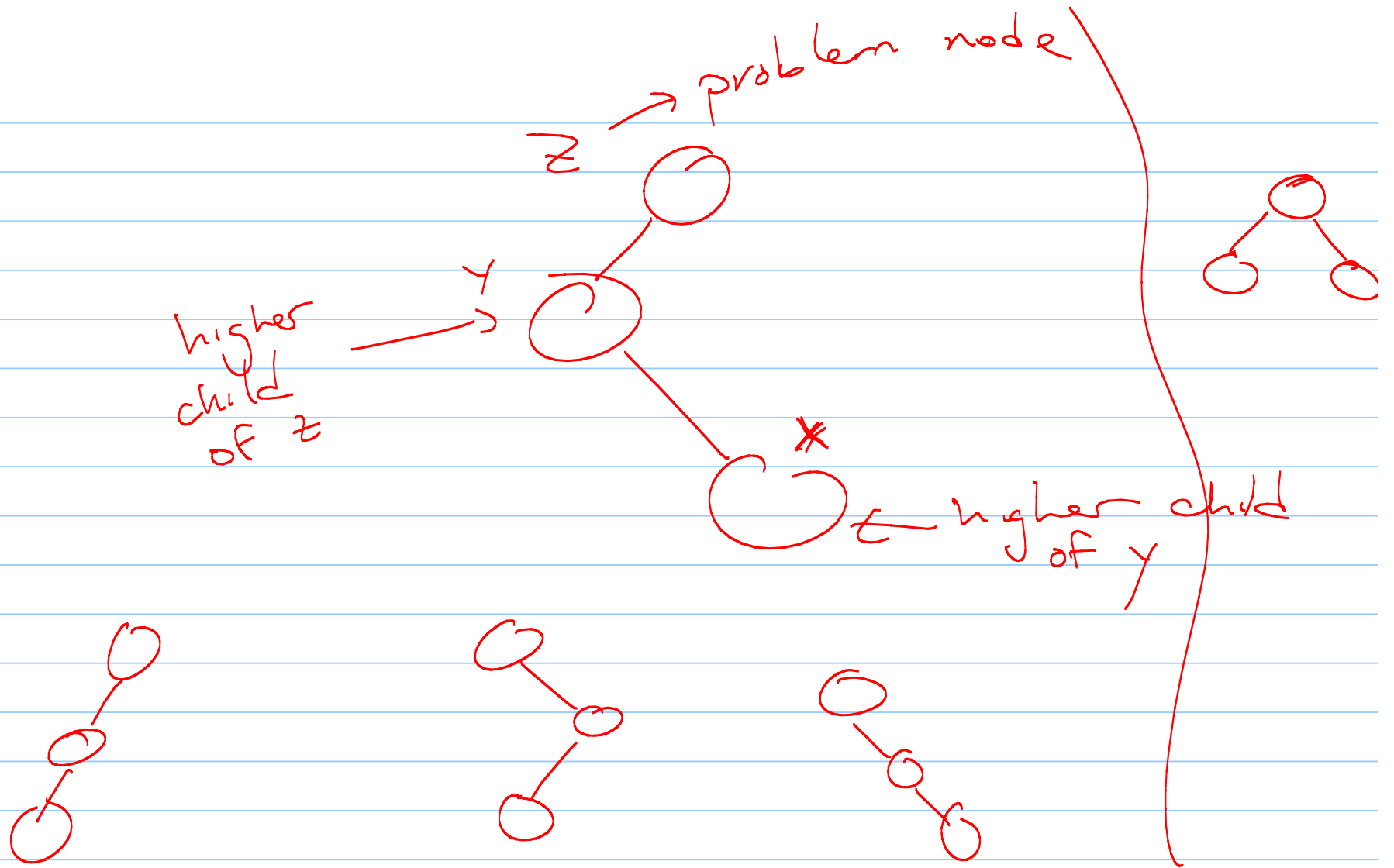


# AVL trees



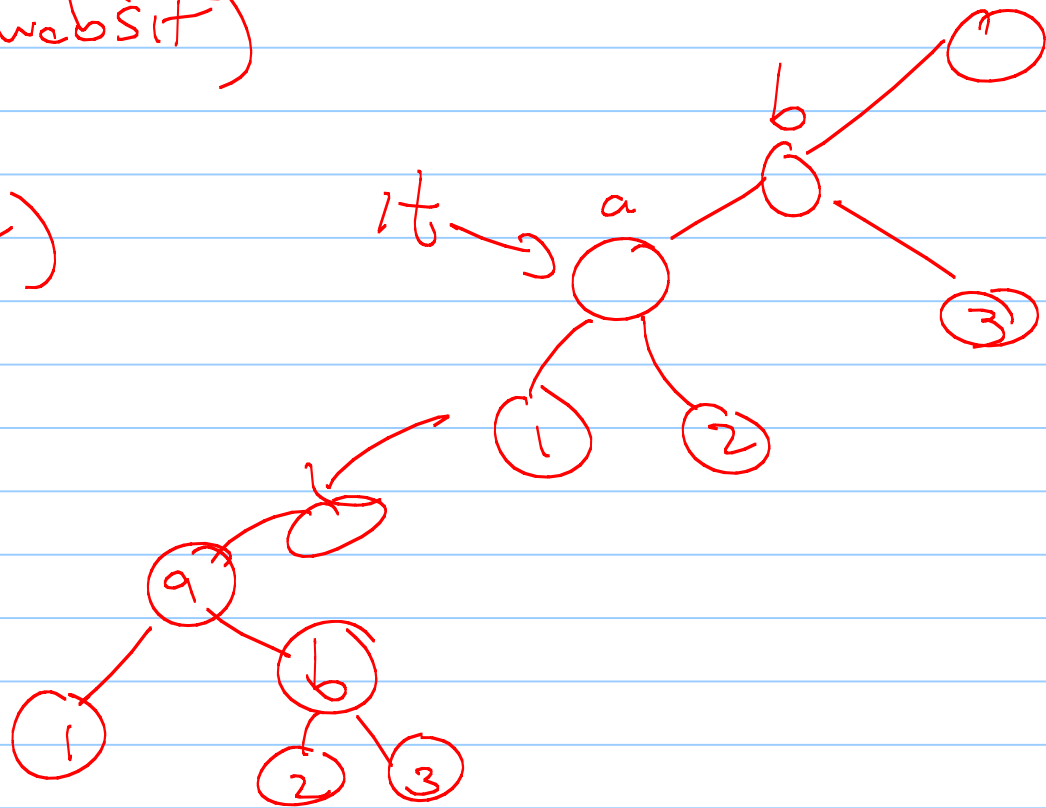
within 1 in height





pivot in Binary Tree  
(code on website)

pivot(ct)



# insert

insert(9)

