James Gordon
Section: 02
HW # 3
Version A
Username: Gordon7
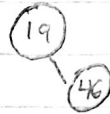
1

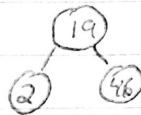Insert 19:   (19)   19 is first object
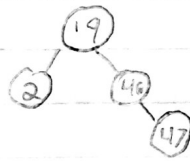   becomes root

Insert 46:   (19)   46 > 19 becomes
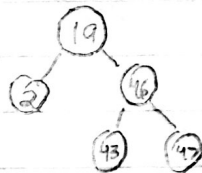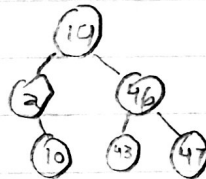   (46)   Right node of 19

Insert 2:   (19)   2 < 19 becomes
                            (2)   (46)   Left node of 19

Insert 47:   (19)   47 > 19; 47 > 46
                            (2)   (46)   becomes right node
                                    (47)   of 46

Insert 43:   (19)   43 > 19, 43 < 46
                            (2)   (46)   becomes left node
                                (43) (47)   of 46

Insert 10:   (19)   10 < 19; 10 > 2
                           (2)   (46)   becomes right node
                            (10) (43) (47)   of 2

2   (19)   search 43
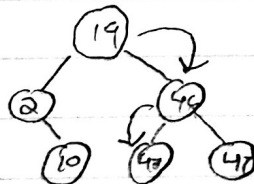   (2)   (46)
                            (10) (43) (47)
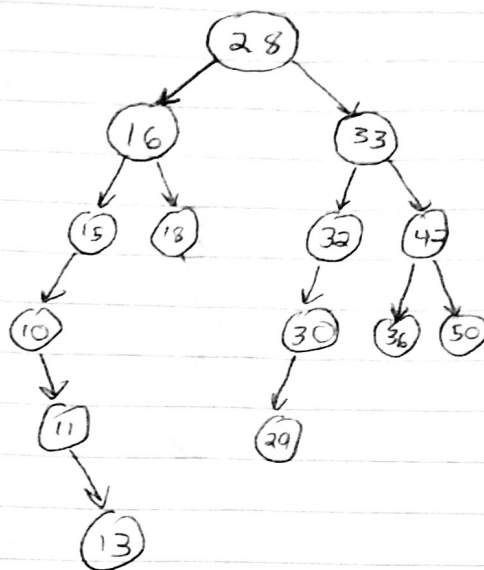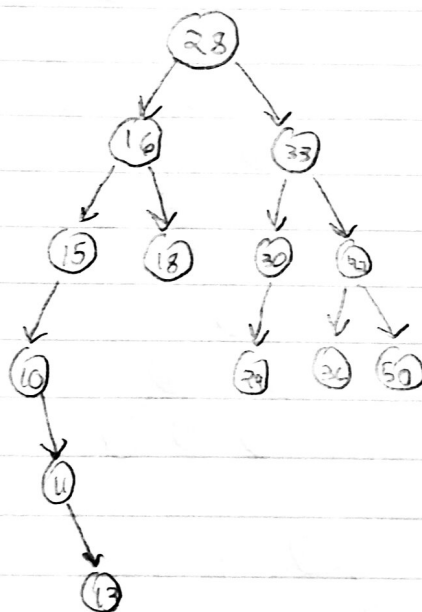
Is 43 > 19? Yes, Then go to right node
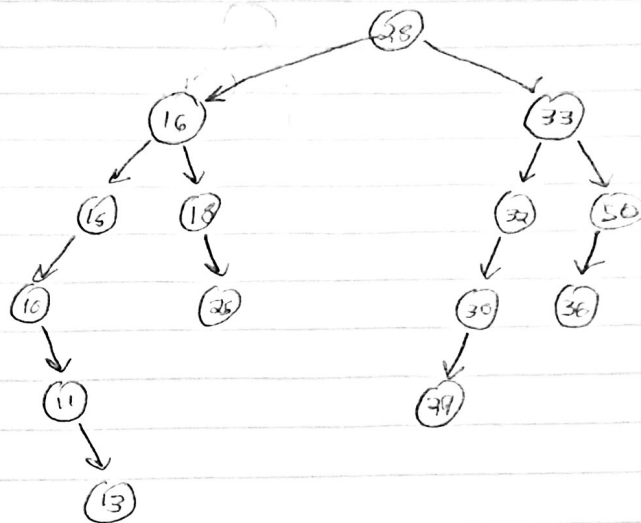Is 43 > 46? No, Then go to left node
43 = 43

3

25 is a leaf, so the node
that pointed to 25, 18, will
no longer have it as a node

4

32 has one child, so the original
node that point to 32, 33, will now
point to 32's child, 30,

5

42 has two children, so it is replaced by 50 since it is the smallest value in 42's right subtree

6

PRE-ORDER   16, 14, 9, 27, 26, 48, 40, 49
PLR

IN-ORDER   9, 14, 16, 26, 27, 40, 48, 49
LPR

POST-ORDER   9, 14, 26, 40, 49, 48, 27, 16
LRP