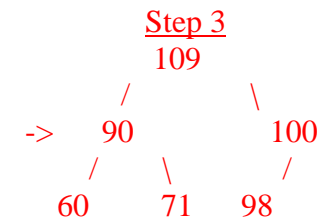
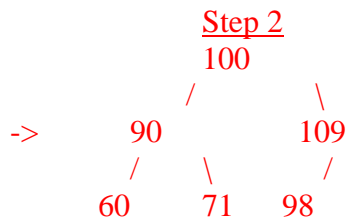
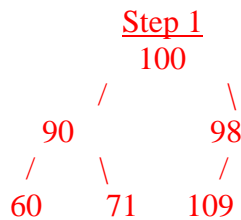
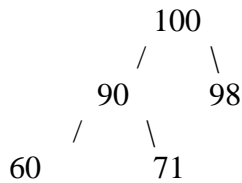


## 2) (5 pts) ALG (Heaps)

Suppose we are storing integers in a **Max-Heap** using the tree representation of heaps. The following tree shows the Max-Heap after 5 insertions. Show the result of inserting 109 into this heap, showing each step of the process. (Hint: You should draw 3 separate tree pictures.) Then, place each value from the resulting heap of 6 values into the array in the appropriate indexes corresponding to how a heap is typically stored in an array.



Index	1	2	3	4	5	6
Heap Value	109	90	100	60	71	98

**Grading: 1 pt for each drawing, 2 pts for correct array, 1 pt for minor error in the array, 0 pt for major error in array.**