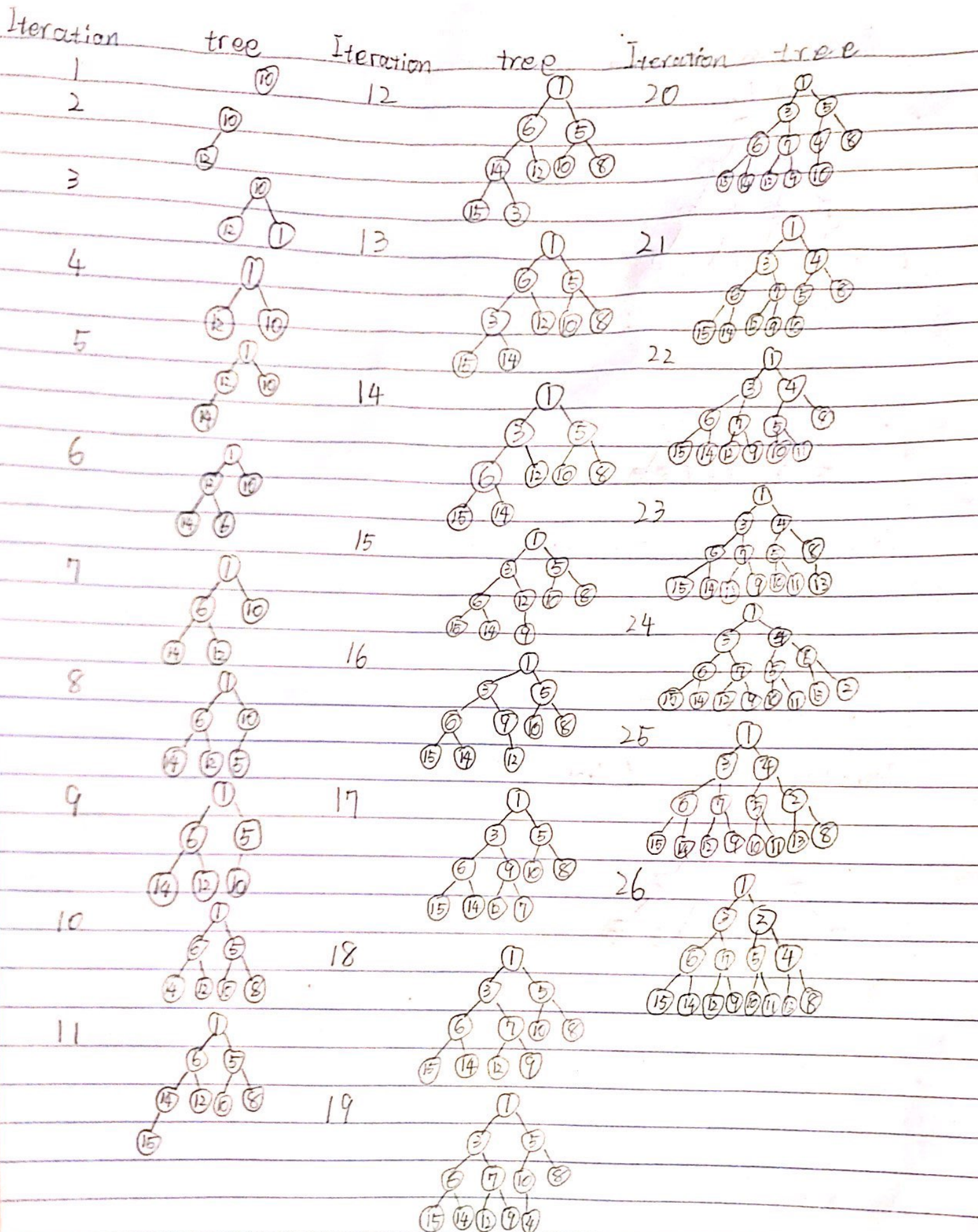


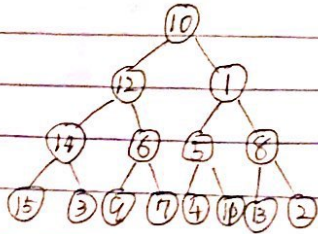
runtime $n \log n$



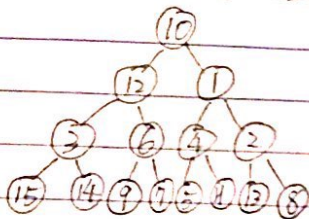
take O(n) to build tree

linear time algorithm places values in tree in the order as they occur

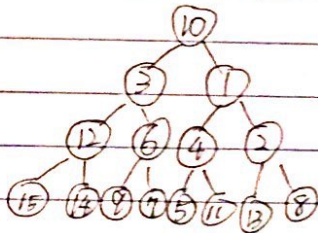
Iteration 1:



Check on last level: Iteration 2:



Iteration 3: check 2nd last level:



Iteration 4: check 3rd last level

