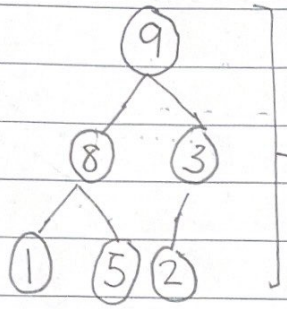
Heap Sort

Heap: order binary tree

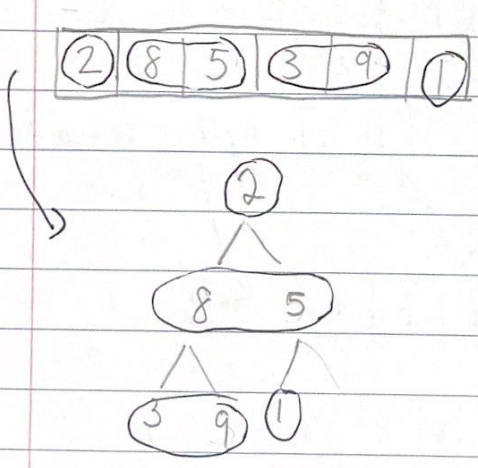
max heap: parent > child



example of a max heap

build-max-heap: Creates max heap from unsorted array

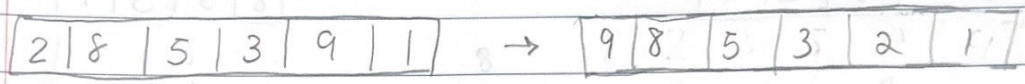
heapify: Similar to build-max-heap, but assumes part of array is already sorted.

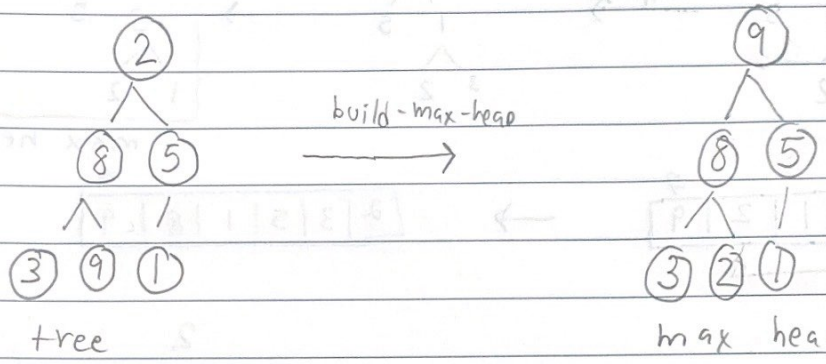


1) create max heap

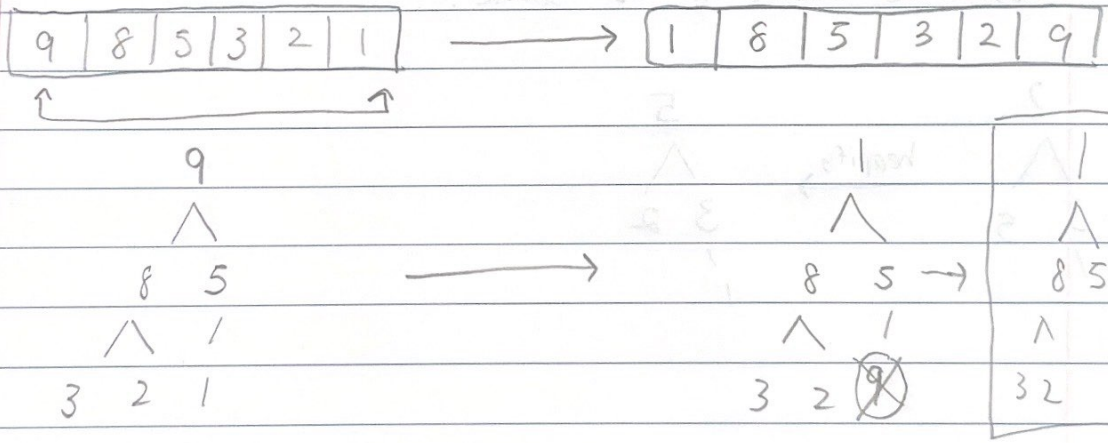
2) Remove largest item

3) Place item in sorted partition



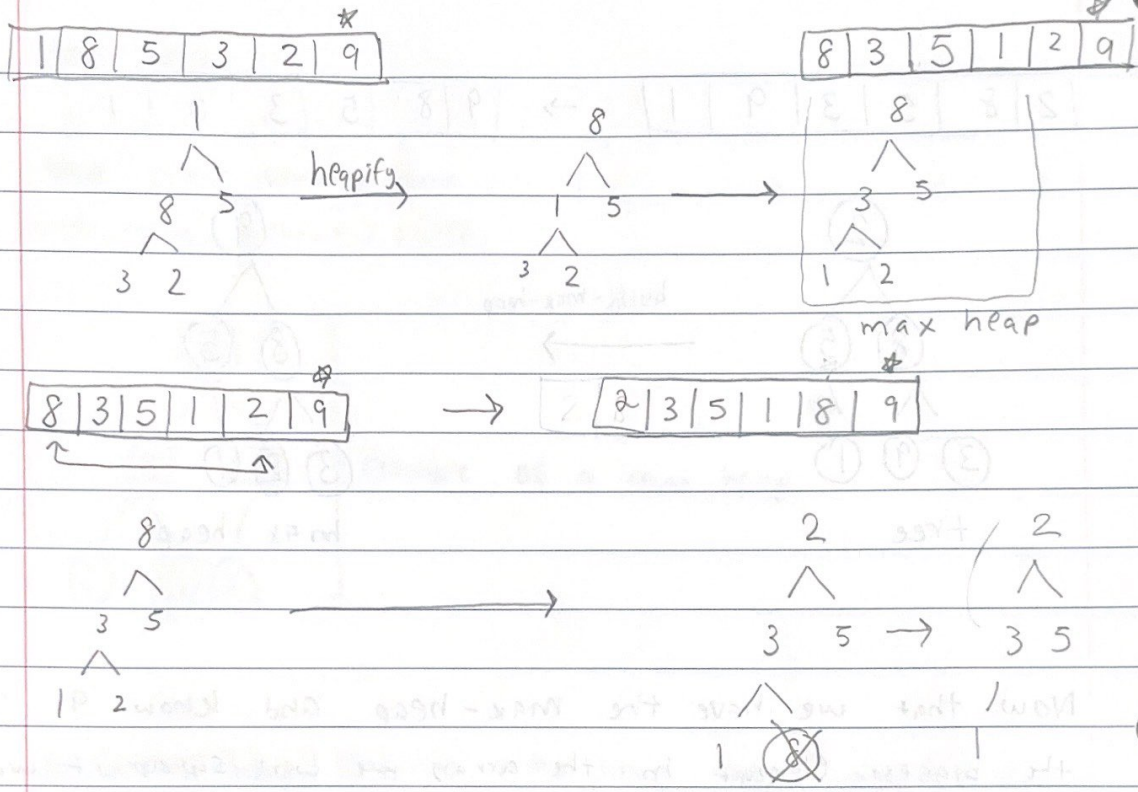


Now that we have the max-heap and know 9 is the biggest element in the array we will swap it with 1. And remove 9 from the tree



And then we mark 9 as sorted!

☆ → sorted



Now we count 8 as sorted!