HW5-Heap Sort

1. As for the big-oh notation, both heapSort and mergeSort run in O(NlgN) while insertion sort runs in O(N^2), where N is the input list’s size,
2. The best-case should be O(N), where the running time on building a heap is O(N), and the time spent on moving all the elements from heap to the objective list is also O(N) if each extractMin operation only spends O(1) (e.g. when there are lots of elements with the same value).

On the other hand, the worst-case should be O(nlgn), where each extractMin operation runs in O(lgN) and thus total running time is O(NlgN).

3. Because there is no need to heapify leaf nodes, they are already a one-element heap.