Heapsort

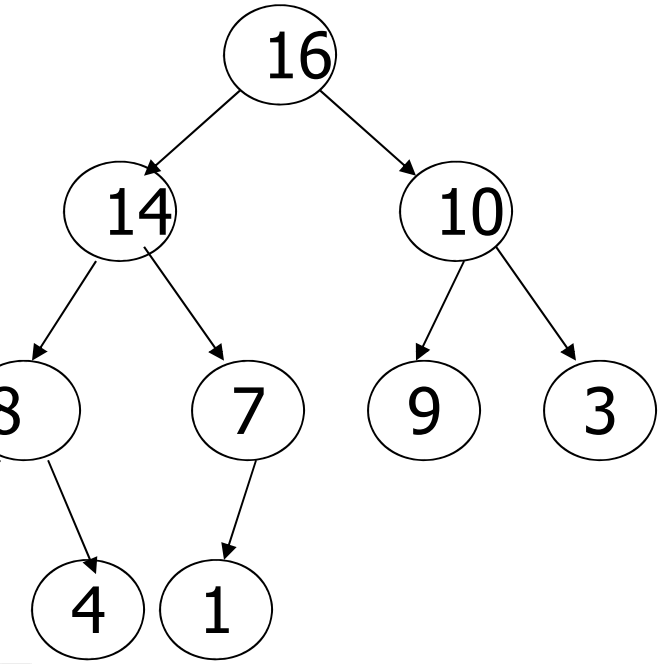
1. Consider array *x* as a complete binary tree and use the *Heapify* algorithm to convert this tree to a heap.

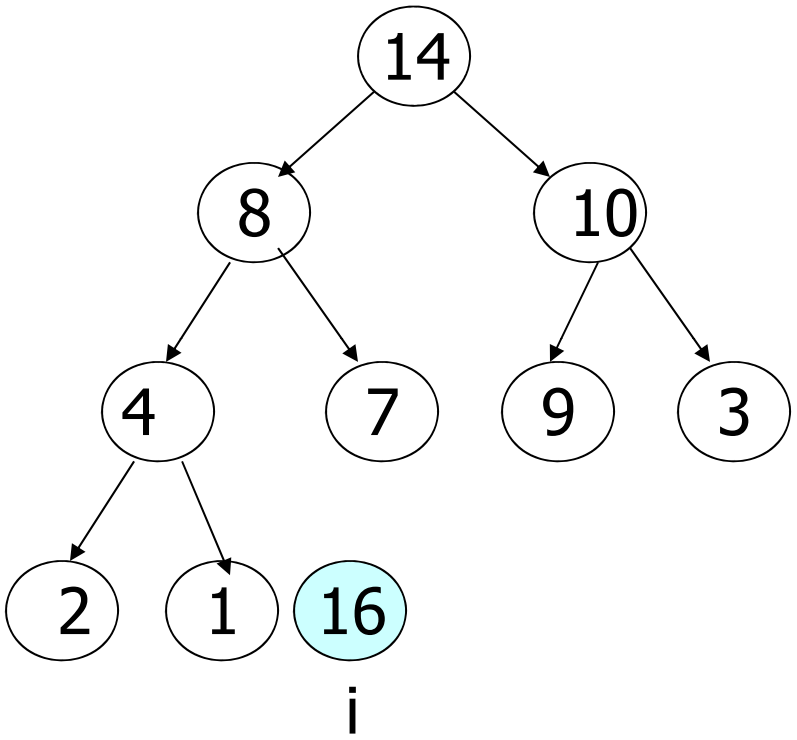
2. For *i* = *n-1* down to 1:

a. Interchange *x*[0] and *x*[*i*], *thus putting the largest element in the sublist x[0],...,x[i] at end of sublist.*

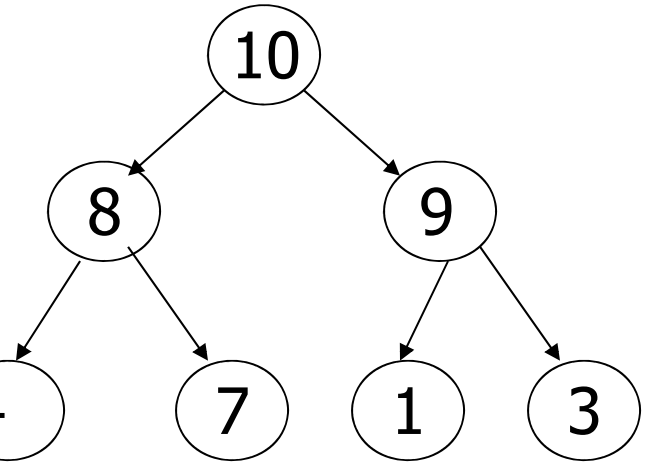
b. Apply the *TrickleDown* algorithm to convert the binary tree corresponding to the sublist stored in positions 0 through *i* - 1 of *x*.

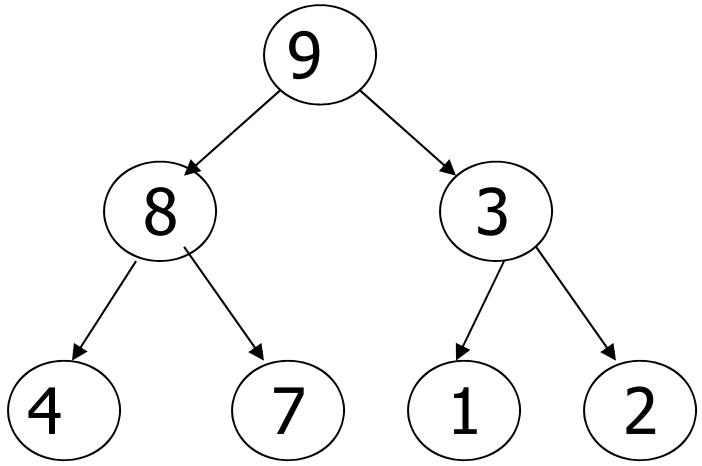
Example for HeapSort

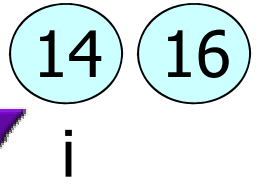


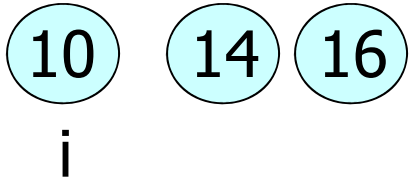


Example for HeapSort

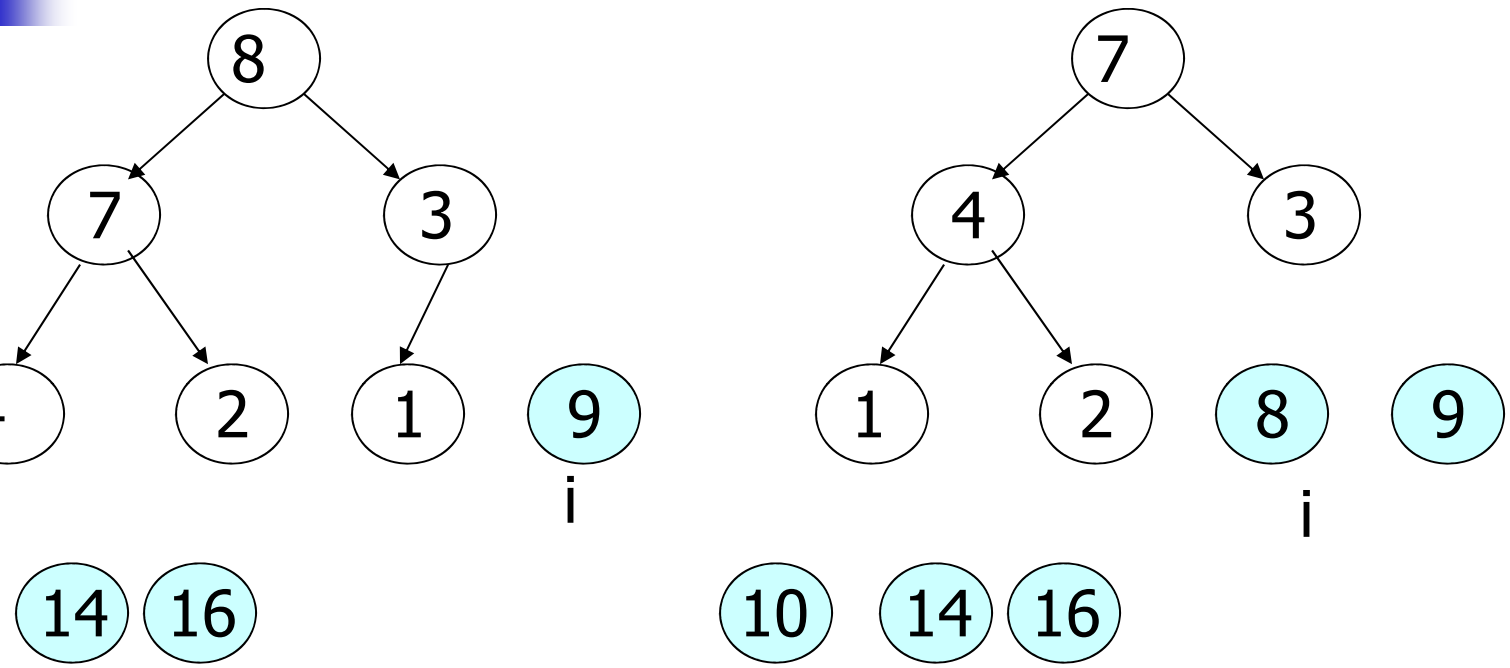




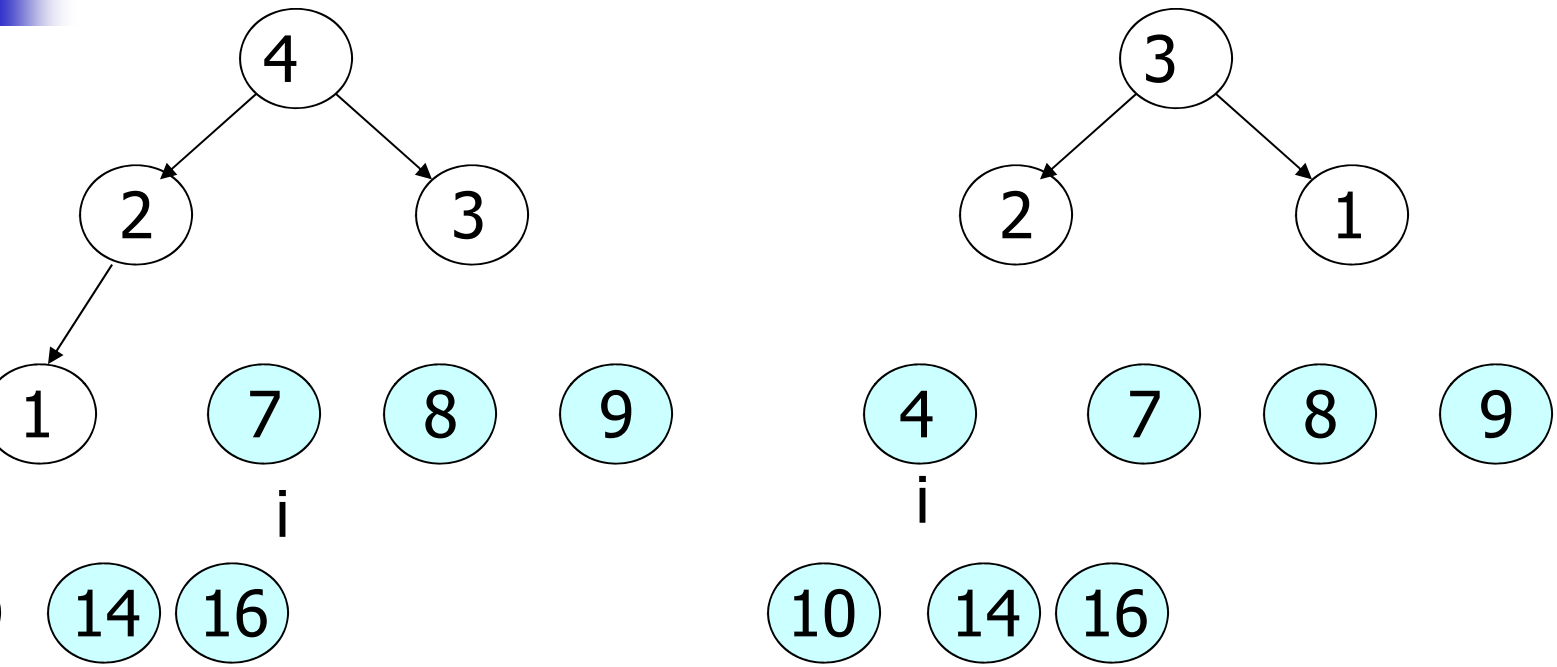




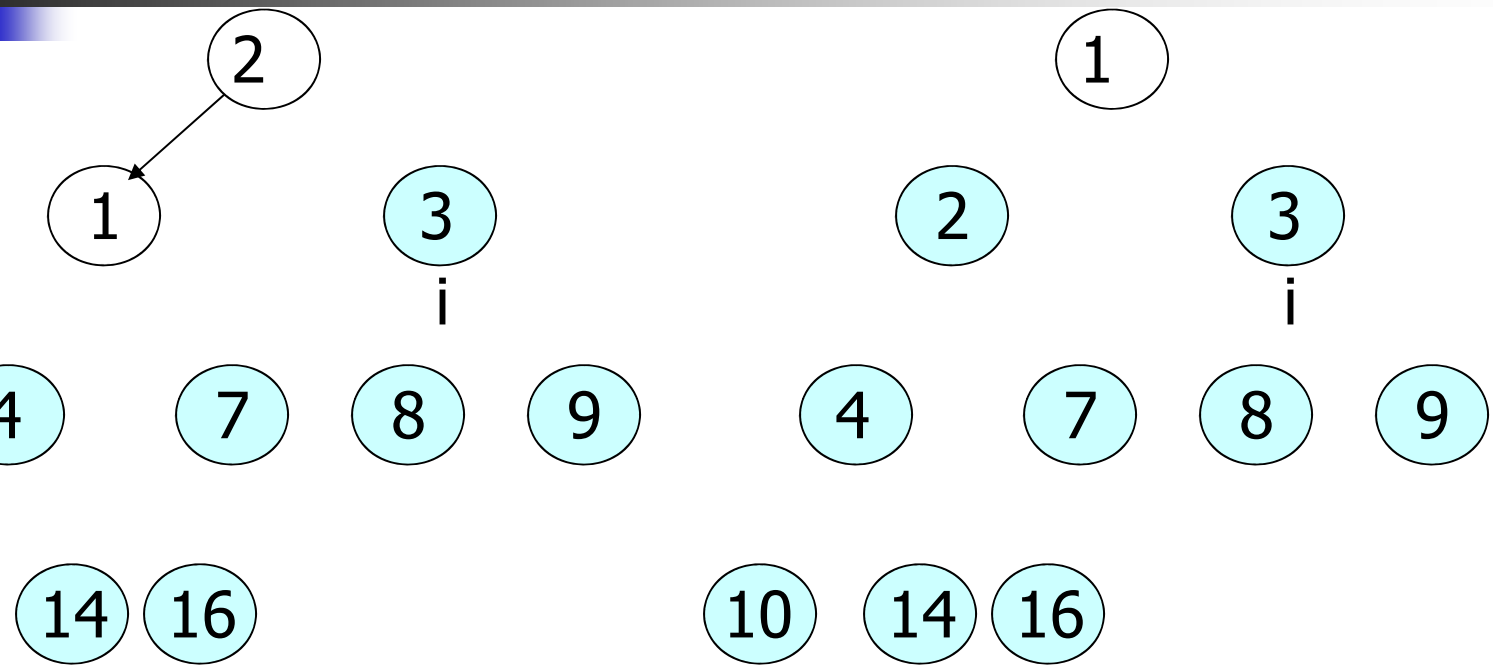
Example for HeapSort



Example for HeapSort



Example for HeapSort



1	2	3	4	7	8	9	10	14	16