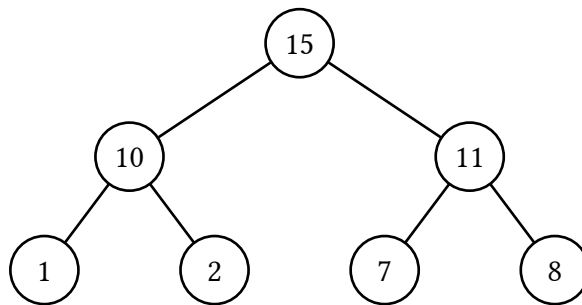# CS240 Tutorial 3

1. **Operations on Heaps**
   Insert 27 and 9 into the following heap and then perform a delete-max operation on the resulting heap.

2. **Selection**
   Develop an algorithm to find the kth largest element in an array in $\Theta(n + k \log(n))$ time worst case.

3. **Merging Sorted Arrays**
   Develop an algorithm which takes k sorted arrays, together containing n elements and combines them into a single sorted array in $O(n \log(k))$ time worst case.