1. Show the result of the array (7, 2, 6, 3, 1, 12, 9, 5, 10, 4, 8, 11) converted into a max-heap.

2. Write pseudocode for the procedure Insert(S, x), which inserts an element x into a priority queue S.

3. Show how to implement a stack with a priority queue.

4. Draw the decision tree for quicksort operating on three elements. (Use the version of Partition as given in the handouts.)