

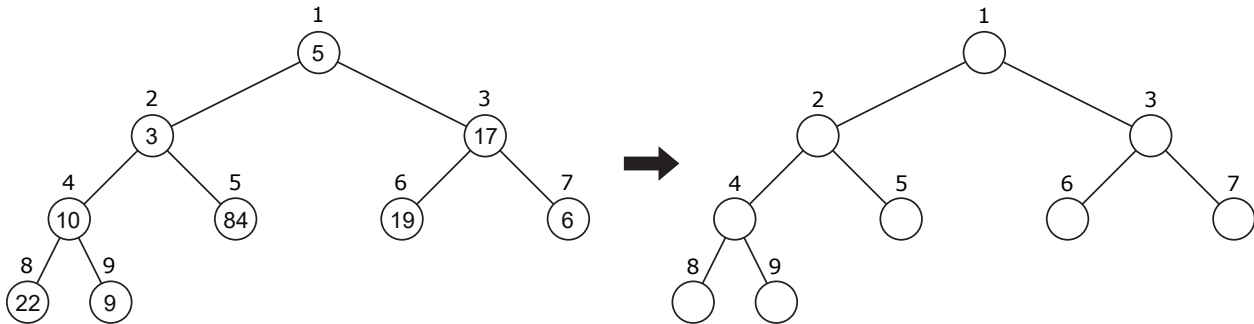
# Algorithms and Data Structures

## Algorithm Assignment: Lecture 9

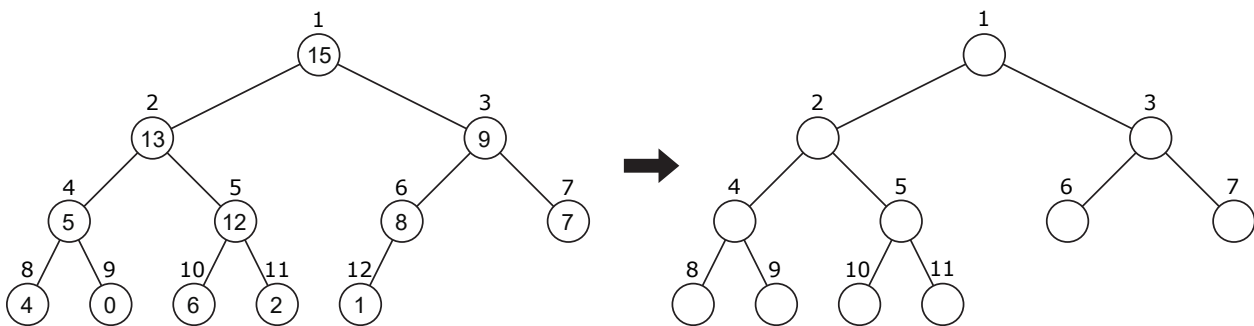
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1. Illustrate a max-heap constructed by a buildMaxHeap operation with an array  $A = \{5, 3, 17, 10, 84, 19, 6, 22, 9\}$ . You should follow the pseudocode in the lecture note.



2. Illustrate a max-heap constructed by a heapExtractMax operation to a heap  $A = \{15, 13, 9, 5, 12, 8, 7, 4, 0, 6, 2, 1\}$ . You should follow the pseudocode in the lecture note.



3. Illustrate a max-heap constructed by a maxHeapInsert( $A, 10$ ) operation to a heap  $A = \{15, 13, 9, 5, 12, 8, 7, 4, 0, 6, 2, 1\}$ . You should follow the pseudocode in the lecture note.

