

CS 140A - Homework 6
Due Wednesday, November 26

1. (a) Show the result of inserting 10, 12, 1, 14, 6, 5, 8, 15, 3, 9, 7, 4, 11, 13, and 2, one at a time, into an initially empty binary heap.
(b) Show the result of using the linear-time algorithm to build a binary heap using the same input.
2. Show the result of performing three `Dequeue.HIGH` operations in the heap of part b of the previous exercise.
3. Given a complete binary tree of height h , describe the bounds on the number of nodes in terms of the height.
4. Where in a min-heap does the largest item reside?