CSE 332: Data Structures and Parallelism

QuickCheck: Heaps (due Thursday, January 12)

Name:

0. You're My Priority!

heap[0]

heap[1]

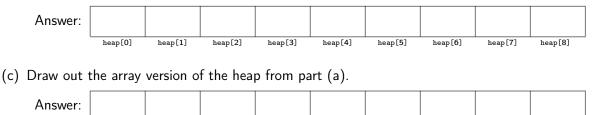
heap[2]

(a) Insert the following numbers into a max heap in the order provided:

10, 15, 5, 2, 20, 30, 4, 1, 41

DO NOT use buildHeap; just insert them one by one. Showing your work might be prudent on a real exam (for partial credit).

(b) Re-order the numbers so that if you were to insert them into a heap again, (1) the result would be an identical heap, and (2) the number of comparisons is minimal.



heap[3]

heap[4]

heap[5]

heap[6]

heap[7]

heap[8]