

Course ID: CS 501

Name: Mengmeng Xue

Student ID: 19519

Hw10. 03/25

Description:

http://npu85.npu.edu/~henry/npu/classes/algorithm/quicksort/slide/exercise_quicksort.htm

Q2 ==> Sort these numbers using these sorting algorithms [Quick Sort](#)

http://npu85.npu.edu/~henry/npu/classes/algorithm/heapsort/slide/exercise_heapsort.html

Q7 ==> Sort these numbers using [Heapsort](#)

2. Sort these numbers using these sorting algorithms [Quick Sort](#)

14 10 33 27 43 20 34 31

14 10 27. **20.** \ 34. 43. **33**

14. **10.** \. 27 | \43. **34**

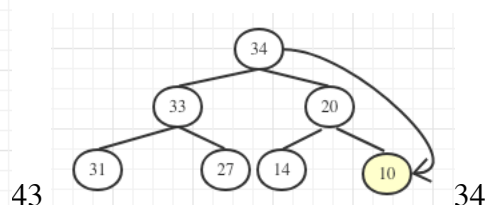
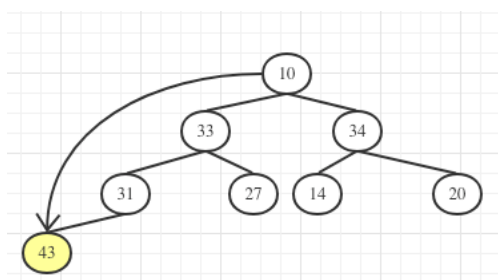
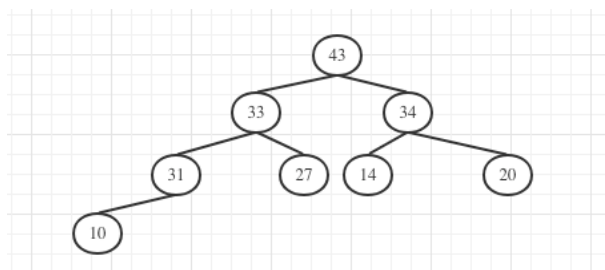
\ 14. \ 43

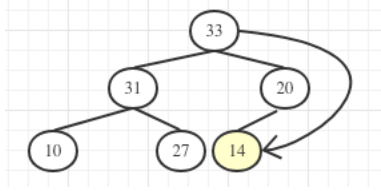
Result: 10, 14, 20, 27, 31, 33, 34, 43

7. Sort these numbers using [Heapsort](#)

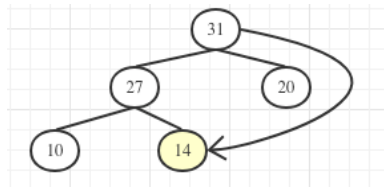
14 10 33 27 43 20 34 31

Max heap as below:

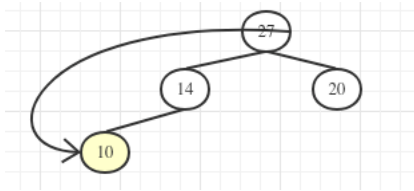




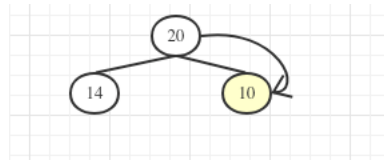
33



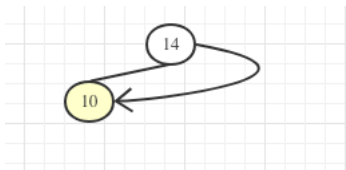
31



27.



20



14. 10

Result: 43. 34. 33. 31. 27. 20. 14. 10.