

Q1 Instructions

0 Points

To receive full credit on this quiz, you must score at least 50%.

The Github repo for Lecture 21 is at:

<https://github.com/ucsd-cse12-sp21/ucsd-cse12-sp21.github.io/tree/master/lectures/lecture-21>

Q2 Heap Applications

1 Point

Based on the Heap Sort and Median Tracker implementations from the lecture, select all of the following that are true:

☐ Heap Sort uses a max heap to sort the values of an array in ascending order.

☒ The run-time for Heap sort is $\Theta(n * \log(n))$

☐ The run-time for the add() method in Median Tracker is $\Theta(n * \log(n))$

☒ Median Tracker uses a min and max heap to find the median value of an array.

Q3 Median Tracker

1 Point

Based on the Median Tracker implementation from lecture, select the value of the toString() after adding all of the following elements:

7, 10, 2, 4, 8

☐ [4, 2, 7] 7 [10, 8]

☐ [7, 4, 2] 7 [10, 8]

☐ [7, 4, 2] 7 [8, 10]

☐ [7, 2, 4] 7 [10, 8]

☒ [4, 2] 7 [7, 10, 8]

☐ [4, 2] 7 [7, 8, 10]

☐ [2, 4] 7 [7, 8, 10]