Quiz Submissions - Quicksort and Priority Queues Reading Quiz

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Retaken Attempt 2

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Submission View

Your quiz has been submitted successfully.

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Question 1 Correct on previous attempt(s) **2 / 2 points**

What is the tilde approximation for the average number of comparisons done by quicksort?

- $N \ lg \ N$
- ✓ $2N \ lg \ N$
- N^2
- $(N \ lg \ N) \ / \ 3$

Question 2 Correct on previous attempt(s) **2 / 2 points**

What is the tilde approximation for the average number of array element swaps

done by quicksort?

- $N \lg N$
- $2N \lg N$
- N^2
- ✓ $(N \lg N) / 3$

→ Question 3 Retaken — 2 / 2 points

What is the worst-case order-of-growth of quicksort?

- N
- $N \lg N$
- $2N \lg N$
- ✓ N^2

Question 4 Correct on previous attempt(s) — 2 / 2 points

How can the worst-case performance of quicksort be avoided?

- Reverse the data before sorting.
- ✓ Randomize the data before sorting.

- Swap every other array element before sorting.

Question 5 Correct on previous attempt(s) **2 / 2 points**

Using a heap to implement a priority queue, what is the order of growth for the `insert()` operation?

- 1
- ✓ $lg\ N$
- N
- $N\ lg\ N$
- N^2

Question 6 Correct on previous attempt(s) **2 / 2 points**

Using a heap to implement a priority queue, what is the order of growth for the `delMax()` operation?

- 1
- ✓ $lg\ N$
- N
- $N\ lg\ N$

- [ ] N^2

Question 7 Correct on previous attempt(s) **2 / 2 points**

Using a heap to implement a priority queue, what is the order of growth for the `max()` operation?

- [x] 1
- [ ] $lg\ N$
- [ ] N
- [ ] $N\ lg\ N$
- [ ] N^2

Attempt Score: 14 / 14 - 100 %

Overall Grade (highest attempt): 14 / 14 - 100 %

Done