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# Quiz Submissions - Elementary Sorts and Mergesort Reading Quiz

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# Retaken Attempt 2

Written: Mar 15, 2022 1:25 PM - Mar 15, 2022 1:25 PM

#### **Submission View**

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### Question 1 Correct on previous attempt(s)

1 / 1 point

What is the tilde approximation for the number of comparisons done by selection sort?

$$\frac{N^2}{2}$$

$$\frac{N^2}{4}$$

$$N^2$$

## Question 2 Correct on previous attempt(s)

1 / 1 point

What is the tilde approximation for the number of comparisons done by insertion sort?

$$\frac{N^2}{2}$$

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$$\frac{N^2}{4}$$

$$N^2$$

#### Question 3 Correct on previous attempt(s)

1 / 1 point

Based on the tilde approximations for selection sort and insertion sort, which would you expect to be faster (all else being equal)?

**√**(•)

insertion sort

selection sort

#### **Question 4** Correct on previous attempt(s)

1 / 1 point

What is the tilde approximation for the (worst case) number of comparisons done by mergesort?

$$\frac{N^2}{2}$$



# Question 5 Correct on previous attempt(s)

1 / 1 point

What is the order of growth of both selection sort and insertion sort?

 $\frac{N^2}{2}$ 

 $\frac{N^2}{4}$ 

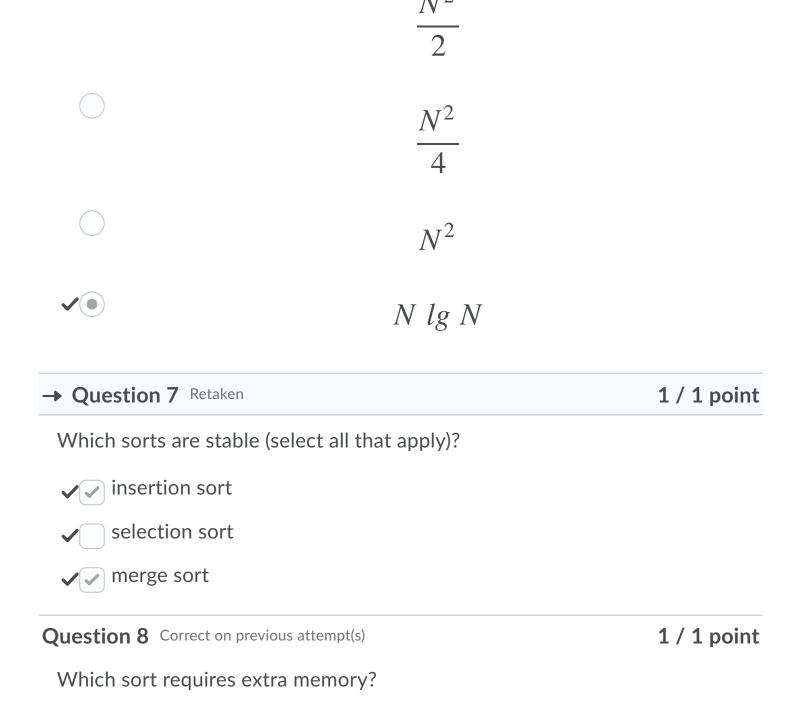
 $\checkmark \bullet$   $N^2$ 

N lg N

# Question 6 Correct on previous attempt(s)

1 / 1 point

What is the order of growth of mergesort?



# Question 9 Correct on previous attempt(s)

insertion sort

selection sort

✓ merge sort

1 / 1 point

Which sort works by iterating over the array, selecting the smallest item and moving it into place with each iteration?

insertion sort	
✓ selection sort	
merge sort	
Question 10 Correct on previous attempt(s)	1 / 1 point
Which sort works by iterating over the array and inserting each place?	item into
✓ insertion sort	
selection sort	
merge sort	
Question 11 Correct on previous attempt(s)	1 / 1 point
Question 11 Correct on previous attempt(s)  Which sort works by splitting the array in half, sorting the halves merging them back together?	-
Which sort works by splitting the array in half, sorting the halves	-
Which sort works by splitting the array in half, sorting the halves merging them back together?	-
Which sort works by splitting the array in half, sorting the halves merging them back together?  insertion sort	-
Which sort works by splitting the array in half, sorting the halves merging them back together?  insertion sort selection sort	-
Which sort works by splitting the array in half, sorting the halves merging them back together?  insertion sort selection sort	s, and then

Done