

Quiz 1

Due Jan 15 at 11:59pm

Points 8

Questions 8

Available Jan 5 at 11:59pm - Jan 15 at 11:59pm 10 days

Time Limit None

Allowed Attempts 2

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Attempt History

	Attempt	Time	Score
LATEST	Attempt 1	39 minutes	8 out of 8

⚠️ Answers will be shown after your last attempt

Score for this attempt: 8 out of 8
Submitted Jan 15 at 3:36pm
This attempt took 39 minutes.

Question 1

1 / 1 pts

Which of the following growth-rate functions grows the fastest in value?

☐ 1

☐ n

☒ n^2

☐ log n

Question 2

1 / 1 pts

Which of the following growth-rate functions indicates a problem whose time requirement is independent of the size of the problem?

- ☒ 1
- ☐ n
- ☐ n^3
- ☐ $\log(n^2)$

Question 3

1 / 1 pts

An algorithm's execution time is related to the number of _____ it requires.

- ☐ parameters
- ☐ test data sets
- ☐ data fields
- ☒ operations

Question 4

1 / 1 pts

Which of the following can be used to compare two algorithms?

- ☒ growth rates of the two algorithms
- ☐ implementations of the two algorithms
- ☐ test data used to test programs which implement the two algorithms

- ☐ computers on which programs which implement the two algorithms are run

Question 5

1 / 1 pts

Algorithm efficiency is typically a concern for _____.

- ☐ small problems only
- ☒ large problems only
- ☐ medium sized problems only
- ☐ problems of all sizes

Question 6

1 / 1 pts

The _____ notation defines an upper bound of an algorithm, it bounds a function only from above.

- ☒ Big O
- ☐ Big Omega
- ☐ Small Omega
- ☐ Big Theta

Question 7

1 / 1 pts

The order of Insertion Sort average case is:

- ☐ $O(n)$
- ☐ $O(n \log n)$
- ☐ Theta ($n \log n$)
- ☒ Theta (n^2)

Question 8

1 / 1 pts

The Merge Sort uses _____ algorithm technique:

- ☐ Greedy
- ☐ Dynamic Programming
- ☒ Divide and Conquer
- ☐ Backtracking

Quiz Score: **8** out of 8