Quiz 1

Due Mar 5 at 23:59 **Points** 10 **Questions** 10
Available Feb 26 at 0:00 - Mar 5 at 23:59 **Time Limit** None
Allowed Attempts Unlimited

Instructions

You can take this quiz as many times as you like before its due date.

You mark will be based on your **last attempt**. All previous attempts will be ignored.

Take the Quiz Again

Attempt History

	Attempt	Time	Score
LATEST	Attempt 1	11 minutes	10 out of 10

ⓘ Correct answers will be available on Mar 6 at 0:00.

Score for this attempt: **10** out of 10
Submitted Feb 28 at 12:57
This attempt took 11 minutes.

Question 1

1 / 1 pts

Which of the following is a big-O description that applies to the function g(n) = 18log n + 2n + 3n log n? Select the tightest bound that holds.

- (●) O(n log n)
- ( ) $O(n^2)$
- ( ) O(log n)

O(n)

Question 2

1 / 1 pts

Which of the following is a big-O description that applies to the function $g(n) = 3\log n + 5n^2 + 2n$? Select the tightest bound that holds.

- O(log n)
- $O(n^2)$
- O(n)
- O(n log n)

Question 3

1 / 1 pts

Which class of functions grows fastest, among those given as choices?

- $O(n^2)$
- O(n log n)
- O(n)
- O(log n)

Question 4

1 / 1 pts

What is the big-O worst-case time cost of accessing an arbitrary element in a singly linked list? Select the tightest bound that holds.

- O(1)
- $O(n^2)$
- O(log n)
- O(n)

Question 5

1 / 1 pts

What is the big-O worst-case time cost of traversing a doubly-linked list with header and trailer sentinals, visiting every element? Select the tightest bound that holds.

- $O(n^2)$
- O(log n)
- O(1)
- O(n)

Question 6

1 / 1 pts

What is the big-O of the worst-case time cost of inserting an element somewhere into an array of size n? Select the tightest bound that holds.

- O(1)
- $O(n^2)$
- O(log n)
- O(n)

Question 7

1 / 1 pts

What values are printed out, during the following sequence of operations (pseudocode) performed on an initially empty Queue q, whose contents are Strings?

```
q.enqueue("Fred");
q.enqueue("Jane");
q.enqueue("Pete");
print(q.dequeue());
q.enqueue("Kate");
print(q.dequeue());
print(q.dequeue());
```

- Fred
  Fred
  Fred

- Pete
  Kate
  Jane

- Fred
  Jane
  Pete

- Fred
  Kate
  Pete

Question 8

1 / 1 pts

What values are printed out, during the following sequence of operations (pseudocode) performed on an initially empty Queue q, whose contents are Strings?

```
q.enqueue("Fred");
q.enqueue("Jane");
print(q.dequeue());
q.enqueue("Pete");
q.enqueue("Kate");
print(q.dequeue());
print(q.dequeue());
```

- Fred
  Jane
  Pete

- Fred
  Pete
  Kate

- Jane
  Kate
  Pete

- Fred
  Fred
  Fred

Question 9

1 / 1 pts

What values are printed out, during the following sequence of operations (pseudocode) performed on an initially empty Stack s, whose contents are Strings?

```
s.push("Fred");
s.push("Jane");
s.push("Pete");
s.push("Kate");
print(s.pop());
print(s.pop());
print(s.pop());
```

- Fred
  Jane
- Pete

- Fred
  Kate
- Pete

- Kate
  Fred
- Jane

- Kate
  Pete
- Jane

Question 10

1 / 1 pts

What values are printed out, during the following sequence of operations (pseudocode) performed on an initially empty Stack s, whose contents are Strings?

```
s.push("Fred");
s.push("Jane");
print(s.pop());
s.push("Pete");
s.push("Kate");
print(s.pop());
print(s.pop());
```

- Fred
  Jane
- Pete

- Jane
  Kate
- Pete

- Jane
  Pete
- Kate

- Fred
  Kate
- Pete

Quiz Score: **10** out of 10