

# Quiz

It's quiz time! Test yourself by solving these questions about circular linked lists.

1

Given that you have access to the head node of a circular linked list containing  $n$  elements, what is the time complexity to search for an element?

☐ A)  $O(1)$

☐ B)  $O(\log n)$

☐ C)  $O(n)$

☐ D)  $O(n^2)$

2

A linked list is a circular linked list when the tail node points to itself.

☐ A) True

☐

B)

☐ B) False

3

Given that you have access to the head node, the time complexity of removing the head node in a circular linked list containing  $n$  elements is  $O(1)$ .

☐ A) True

☐ B) False

4

What is the output of the following code?

```
cclist = CircularLinkedList()
cclist.append("A")
cclist.prepend("B")
cclist.prepend("C")
cclist.append("D")

cclist.remove("A")
cclist.remove("C")
print(cclist.head.data)
```

☐ A) A

☐ B) B

☐ C) C

☐ D) D

5

What is the time complexity of the following method if we run it on a circular linked list containing  $n$  elements?

```
def print_list(self):  
    cur = self.head  
  
    while cur:  
        print(cur.data)  
        cur = cur.next  
        if cur == self.head:  
            break
```

☐ A)  $O(1)$

☐ B)  $O(n/2)$

☐ C)  $O(2n)$

☐ D)  $O(n)$

CHECK ANSWERS