CSC148 Summer 2016 Quiz 04 (15 minutes)

First Name …… Last Name …….. Lab room# ……

Recall the **`LinkedListNode`** and **`LinkedList`** classes we discussed in lectures and the lab.

A linkedlist has 3 public attributes: **`front`**, **`back`** , and **`size`**. A linkedlist node has two public attributes: **`value`** and **`next_`**.

1. Write partial code to modify the linked list demonstrated in Figure 1 to the one demonstrated in Figure 2. You can use any of the 5 attributes mentioned above; but, do not invoke any methods.

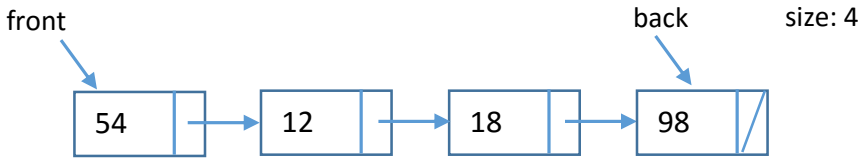

Figure 1

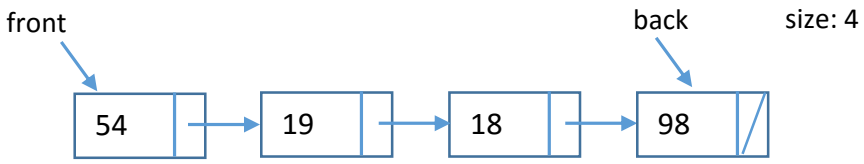

Figure 2

```
front.next_.value = 19
```

2. Write partial code to modify the linked list demonstrated in Figure 1 to the one demonstrated in Figure 3. You can use any of the 5 attributes mentioned above; but, do not invoke any methods.

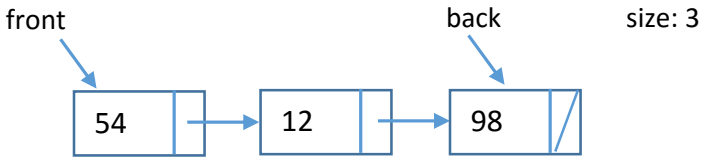

Figure 3

Solution 1:

```
front.next_.next_ = back
size -= 1
```

Solution 2:

```
front.next_.next_ = front.next_.next_.next_
size -=1
```

3. Write partial code to modify the linked list demonstrated in Figure 1 to the one demonstrated in Figure 4. You can use any of the 5 attributes mentioned before; but, do not invoke any methods, except for the constructor of the **`LinkedListNode`**. Its signature is __init__(self, value, next_)

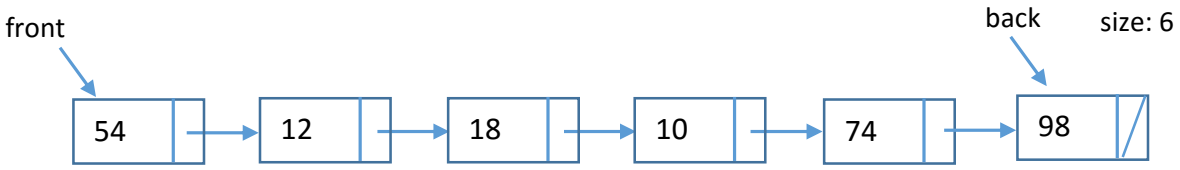

Figure 4

Solution 1:

```
front.next_.next_.next_ = LinkedListNode(10, LinkedListNode(74, back))
size += 2
```

Solution 2:

```
node1 = LinkedListNode(74, back)
node2 = LinkedListNode(10, node1)
front.next_.next_.next_ = node2
size += 2
```