Quiz #6: Linked Lists

```python
def mystery(self, i, j):  
    # This is a method in class LinkedList
    before = self._first
    curr_index = 0
    while curr_index < i - 1 and before is not None:
        before = before.next
        curr_index += 1
    after = before
    while curr_index < j and after is not None:
        after = after.next
        curr_index += 1
    hold = before.next
    before.next = after
    answer = LinkedList([])
    answer._first = hold
    return answer
```

You are about to trace the call below to method mystery. You will probably need some scrap paper for rough work.

```python
>>> linky = LinkedList([0, 1, 2, 3, 4, 5, 6, 7])
>>> s = linky.mystery(2, 6)

1. Draw the state of the linked list and the variables before and curr_index the first time we reach line 4.

2. Draw the state of the linked list and the variables before and curr_index when we reach line 7.

3. Draw the state of the linked list and the variables before and curr_index and after when we reach line 11.

4. Draw the state of the linked list and all the local variables when we reach line 13.

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5. Look at the final steps in this method. What do you think it is trying to do? It may remind you of a method on simply Python lists.

6. Do you notice anything odd about what the method does?

We have some great news for you: The midterm won’t have anything nearly as difficult as this about linked lists!

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