```python
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class LinkedList:
    def __init__(self, value):
        self.value = value
        self.next = None


# O(n + m) time | O(n + m) space - where n is the number of nodes in the first
# Linked List and m is the number of nodes in the second Linked List
def mergeLinkedLists(headOne, headTwo):
    recursiveMerge(headOne, headTwo, None)
    return headOne if headOne.value < headTwo.value else headTwo


def recursiveMerge(p1, p2, p1Prev):
    if p1 is None:
        p1Prev.next = p2
        return
    if p2 is None:
        return

    if p1.value < p2.value:
        recursiveMerge(p1.next, p2, p1)
    else:
        if p1Prev is not None:
            p1Prev.next = p2
        newP2 = p2.next
        p2.next = p1
        recursiveMerge(p1, newP2, p2)

```