

Problem 4

a) The first-time llrec is called,

in1 = [1,2,3,4] and m2 = [5,6].

in1 -> next = llrec ([5,6], [2,3,4])

The second-time llrec is called,

in1 = [5,6] and m2 = [2,3,4]

in1 -> next = llrec ([2,3,4], [6])

The third-time llrec is called,

m1 = [2,3,4] and m2 = [6]

m1 -> next = llrec ([6], [3,4])

The fourth-time llrec is called,

m1 = [6] and m2 = [3,4]

m1 -> next = llrec ([3,4], nullptr)

The final llrec ([3,4], nullptr) returns

[3,4]. Thus, our fourth m1 -> next = [3,4] and thus our fourth in1 = [6,3,4].

This means our third in1 -> next = [6,3,4] and third in1 = [2,6,3,4].

This means our second in1 -> next = [2,6,3,4] and second in1 = [5,2,6,3,4].

This means our first m1 -> next = [5,2,6,3,4] and our first m2 and final returned linked list is [[1,5,2,6,3,4]]

b) The linked list returned is just the list in2, because rn1 is nullptr and llrec returns in2. Thus, the linked list is just in2, which is a node of value 2 with a next pointing to nullptr.