

```

struct Node {
    int val;
    Node* next;
};

Node* llrec(Node* in1, Node* in2)
{
    if(in1 == nullptr) {
        return in2;
    }
    else if(in2 == nullptr) {
        return in1;
    }
    else {
        in1->next = llrec(in2, in1->next);
        return in1;
    }
}

```

$in1 = 1, 2, 3, 4$ $in2 = 5, 6$

(a) $\text{llrec}([1, 2, 3, 4], [5, 6])$

$in1 \rightarrow \text{next} = \text{llrec}([5, 6], [2, 3, 4])$

$[5, 6] \rightarrow \text{next} = \text{llrec}([2, 3, 4], [6])$

$[2, 3, 4] \rightarrow \text{next} = \text{llrec}([6], [3, 4])$

$[6] \rightarrow \text{next} = \text{llrec}([3, 4], \text{null})$

return $[3, 4]$

$[6, 3, 4]$

$[2, 6, 3, 4]$

$[5, 2, 6, 3, 4]$

$[1, 5, 2, 6, 3, 4]$ is returned.

(b) $\text{llrec}([\text{null}], [2])$

return $[2]$

$[2]$ is returned