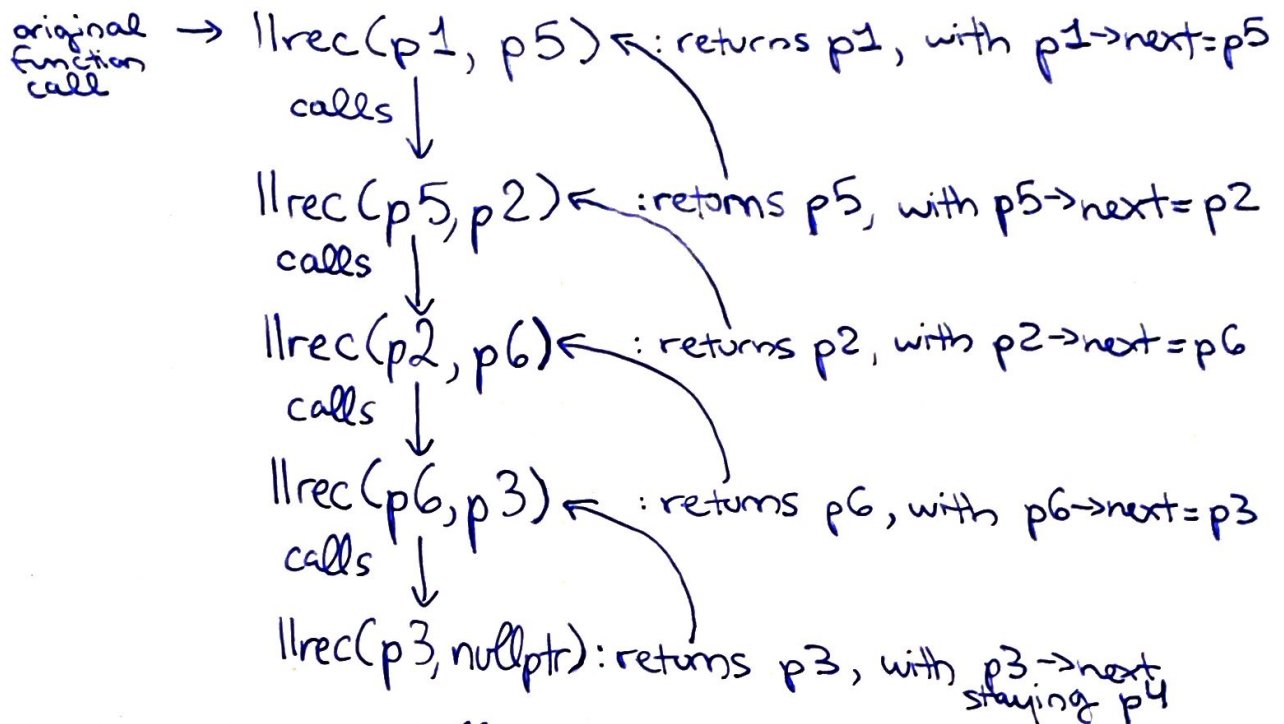


### ### q4 - answers ###

#### Question a

As was suggested in the question, I will use  $p\#$  to refer to pointers to a node with a certain value (eg. "p3" for a pointer to a node with value 3).



The original function call returns  $p1$ , a pointer to a node with value 1.  
 $p1 \rightarrow next = p5$ ,  $p5 \rightarrow next = p2$ ,  $p2 \rightarrow next = p6$ ,  $p6 \rightarrow next = p3$ , and  $p3 \rightarrow next = p4$

Therefore, the linked list that is returned by  $llrec$ , result, is as follows:  $result = 1, 5, 2, 6, 3, 4$

#### Question b

In this case, the original function call is  $llrec(nullptr, p2)$ .

As seen in the code, when  $in1$  is a  $nullptr$ , all that is returned is  $in2$ . Therefore, since  $p2 \rightarrow next = nullptr$ , the linked list that is returned is:

$result = 2$