

(a)

$llrec(in1, in2)$

return  $\{1, 5, 2, 6, 3, 4\}$

$in1 \rightarrow next = llrec(in2, \{2, 3, 4\})$

return  $\{5, 2, 6, 3, 4\}$

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

return  $\{2, 6, 3, 4\}$

$in1 \rightarrow next = llrec(\{6\}, \{3, 4\})$

return  $\{6, 3, 4\}$

$in1 \rightarrow next = llrec(\{3, 4\}, \{\})$

return  $\{3, 4\}$

$\{1, 5, 2, 6, 3, 4\}$  is returned

(b)

$in1$  is NULL

will return  $in2$ , which is 2.