

a)  $in1 = 1, 2, 3, 4$      $in1 \rightarrow next = llrec(in2, in1 \rightarrow next)$

$in2 = 5, 6$

$llrec(1234, 56)$

$\rightarrow 2 = llrec(56, 234) \rightarrow in1: 1, (llrec(56, 234), 3, 4)$

$\rightarrow 6 = llrec(234, 6) \rightarrow in1: 1, (llrec(5(llrec(234, 6), 234), 34))$

$\rightarrow 3 = llrec(6, 34) \rightarrow in1: 1, llrec(5(llrec(2(llrec(6, 34), 4, 6), 234), 34))$

$2 \rightarrow nullptr = llrec(34, nullptr)$

$2 \text{ is null, return } in1.$

$\rightarrow$  Given  $in1 = 1, 2, 3, 4$  and  $in2 = 5, 6$ .

$\hookrightarrow llrec(\{1, 2, 3, 4\}, \{5, 6\}) \rightarrow$

$in1 \rightarrow next = llrec(\{5, 6\}, \{1, 2, 3\})$

$\hookrightarrow \{5, 6\} \rightarrow next = llrec(\{1, 2, 3\}, \{6\})$

$\rightarrow \{1, 2, 3\} \rightarrow next = llrec(\{6\}, \{2, 3\})$

$\hookrightarrow \{6\} \rightarrow next = llrec(\{2, 3\}, nullptr) : 2, 3$

$6, 2, 3$

$1, 2, 3, 6, 2, 3$

$5, 6, 1, 2, 3, 6, 2, 3$

$1, 2, 3, 4, 5, 6, 1, 2, 3, 6, 2, 3$

b)  $\text{llrec}(\text{nullptr}, 2)$

$\hookrightarrow$  returns in 2.

2 will be returned.