

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

Function is called

$1 \rightarrow next =$
 $llrec(5, 2) \rightarrow$ $return\ 1, 5, 2, 6, 3, 4$

\downarrow
 $5 \rightarrow next =$
 $llrec(2, 6) \rightarrow return\ 5, 2, 6, 3, 4$

\downarrow
 $2 \rightarrow next =$
 $llrec(6, 3) \rightarrow return\ 2, 6, 3, 4$

\downarrow
 $6 \rightarrow next =$
 $llrec(3, nullptr) \rightarrow return\ 6, 3, 4$

\downarrow
 $in2 == nullptr \rightarrow return\ 3$

\uparrow but 3 still points to 4, so that will still carry on in this new linked list

b) $in1 = \text{nullptr}$ $in2 = 2$

Function is called

$in1 == \text{nullptr} \rightarrow$ $\text{return } in2 \rightarrow 2$