

```

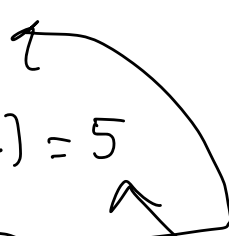
struct Node {
    int val;
    Node* next;
};

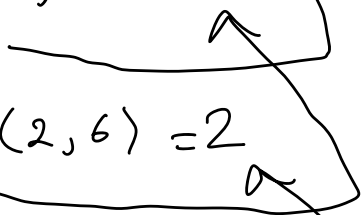
Node* llrec(Node* in1, Node* in2)
{
    if(in1 == nullptr) {
        return in2;
    }
    else if(in2 == nullptr) {
        return in1;
    }
    else {
        in1->next = llrec(in2, in1->next);
        return in1;
    }
}

```

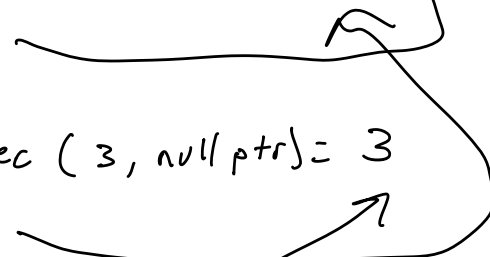
$1 \rightarrow \text{next} = 5$
 $5 \rightarrow \text{next} = 2$
 $2 \rightarrow \text{next} = 6$
 $6 \rightarrow \text{next} = 3$
 $3 \rightarrow \text{next} = 4$

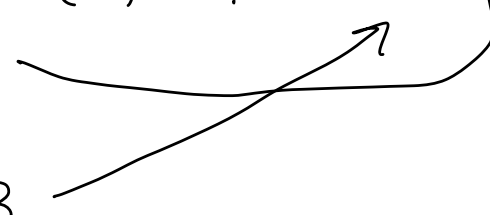
a) $\text{in1} = 1, 2, 3, 4$ $\text{in2} = 5, 6 \rightarrow 1-5-2-6-3-4$
main

$\text{llrec}(1, 5) = 1$ 

$1 \rightarrow \text{next} = \text{llrec}(5, 2) = 5$
 return 1 

$5 \rightarrow \text{next} = \text{llrec}(2, 6) = 2$
 return 5 

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

$6 \rightarrow \text{next} = \text{llrec}(3, \text{nullptr}) = 3$
 return 6 

return 3

```
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;  
    }  
}
```

b) $in1 = nullptr$, $in2 = 2$

$llrec(nullptr, 2)$

return 2

2