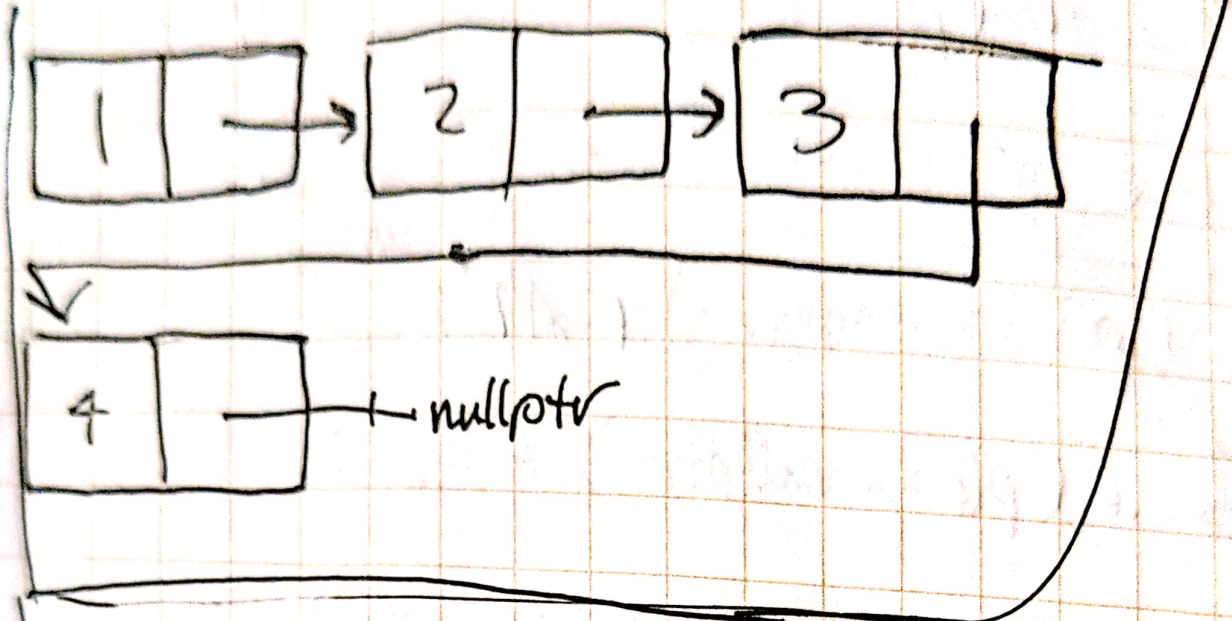
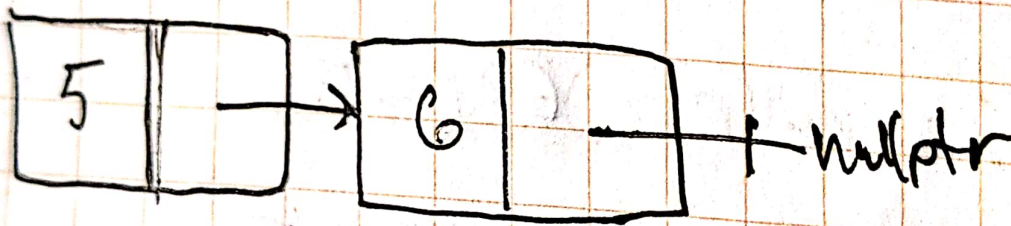


4a)

in1



in2



$in1 \stackrel{p1}{=} nullptr?$  FALSE (1)

↓  
elseif  $p5$

$in2 \stackrel{p2}{=} nullptr?$  FALSE

↓  
else

$in1 \stackrel{p2}{\rightarrow} next = free(p5, p3)$



$in1 = p5$   $in2 = p3$   
if ( $p5 == nullptr$ ) FALSE (2)

↓  
else if ( $p3 == nullptr$ ) FALSE

↓  
else  $p5 \rightarrow next = lrec(p3, p6)$

---

$in1 = p3$   $in2 = p6$   
if ( $p3 == nullptr$ ) FALSE (3)

↓  
else if ( $p6 == nullptr$ ) FALSE

↓  
else  $p3 \rightarrow next = lrec(p6, p4)$

---

$in1 = p6$   $in2 = p4$

if ( $p6 == nullptr$ ) FALSE (4)

↓  
else if ( $p4 == nullptr$ ) FALSE

↓  
else  $p6 \rightarrow next = lrec(p4, nullptr)$

---

$in1 = p4$   $in2 = null$

if ( $p4 == nullptr$ ) FALSE (5)

↓

else if ( $nullptr == nullptr$ ) TRUE  
→ return  $p4$ ;

---



$p6 \rightarrow next = p4;$   
 $return p6;$

---

④

$p3 \rightarrow next = p6;$   
 $return p3;$

---

③

$p5 \rightarrow next = p3;$   
 $return p5;$

---

②

$p2 \rightarrow next = p5;$   
 $return p5;$

---

①

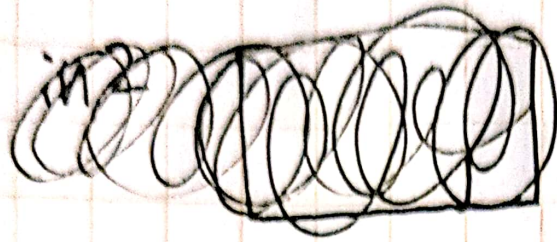
linked list returned is:

$p5, p3, p6, p4, nullptr$

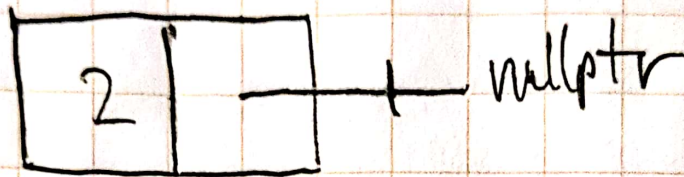


4b) in1 nullptr

---



in2



---

llrec(nullptr, p2)



if (nullptr == nullptr) TRUE



return p2

---

the returned linkedlist is in2

[2, nullptr]

①