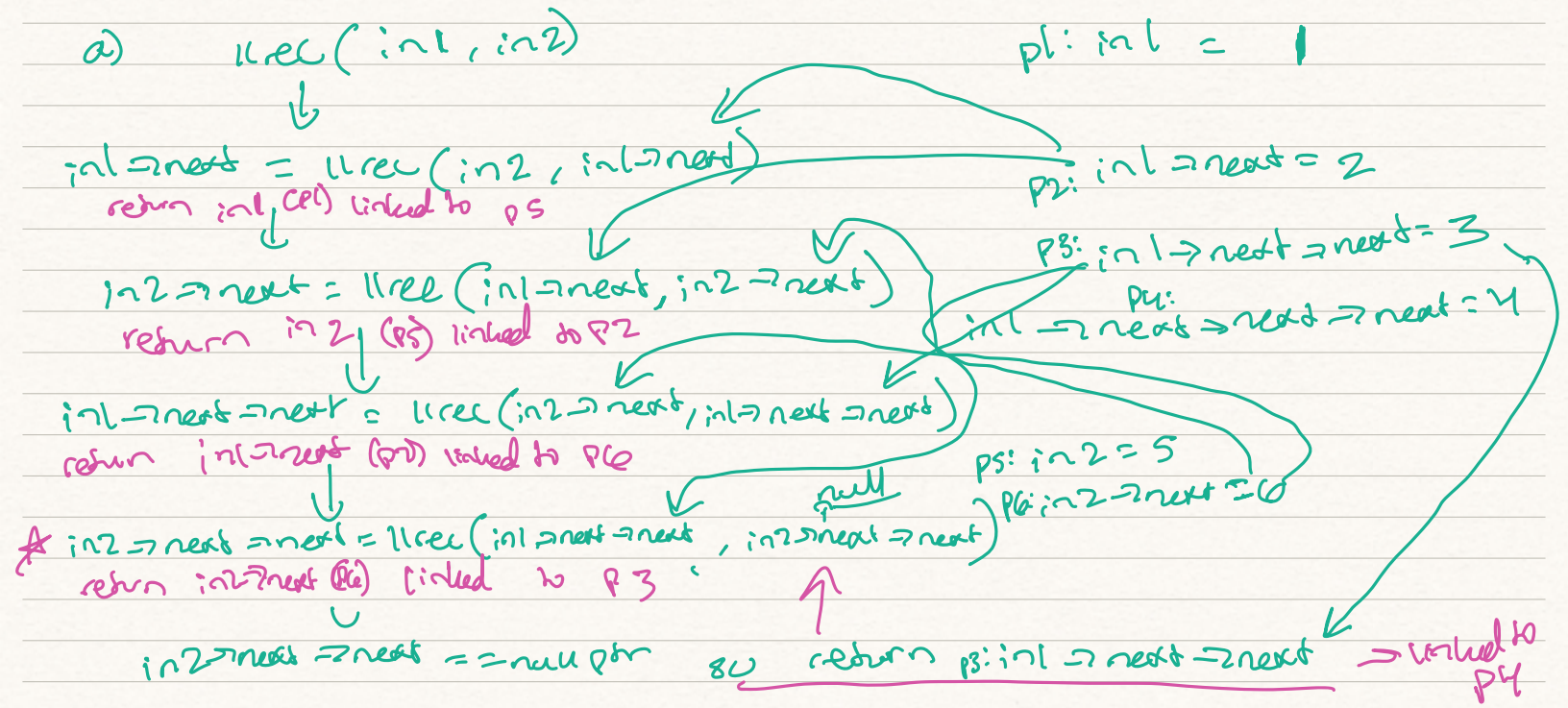
HW1 Q4

Saihaj Gulati

a) llrec(in1, in2)

p1: in1 = 1

in1 → next = llrec(in2, in1 → next)



return in1 (p1) linked to p5

p2: in1 → next = 2

in2 → next = llrec(in1 → next, in2 → next)

return in2 (p5) linked to p2

p3: in1 → next → next = 3

p4: in1 → next → next → next = 4

in1 → next → next = llrec(in2 → next, in1 → next → next)

return in1 → next (p3) linked to p6

p5: in2 = 5

p6: in2 → next = 6

null

★ in2 → next → next = llrec(in1 → next → next, in2 → next → next)

return in2 → next (p6) linked to p3

in2 → next → next == null ptr so return p3: in1 → next → next → linked to p4

Backtrace up calls now → pink stars above mean hit

in2 → next → next = p3 w/ → next of null

in1 → next → next = p6

in2 → next = p2

in1 → next = p5

returned linked list: p1 → p5 → p2 → p6 → p3 → p4

1 → 5 → 2 → 6 → 3 → 4

HW1 Q4

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b) llrec(in1, in2)

in1 = nullptr

in2 = 2

↓

return in2 = 2