

Alex Deng CS104 HW1 Q4

In1: $\rightarrow 1 \rightarrow 2 \rightarrow 3 \rightarrow 4 \rightarrow \text{null}$

In2: $\rightarrow 5 \rightarrow 6 \rightarrow \text{null}$

llrec(p1, p5)

• p1 → next = llrec(p5, p2)

• return p1

• p5 → next = llrec(p2, p6)

• return p5

• p2 → next = llrec(p6, p3)

• return p2

• p6 → next = llrec(p3, null)

• return p6

• return p3

(1 → 5 → 2 → 6 → 3)

(5 → 2 → 6 → 3)

(2 → 6 → 3)

(6 → 3)

a) returns: $\rightarrow 1 \rightarrow 5 \rightarrow 2 \rightarrow 6 \rightarrow 3 \rightarrow \text{null}$

b) when in1 = nullptr the first if statement runs and llrec just returns a pointer to 2.