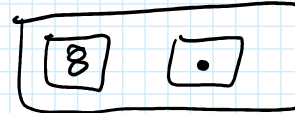Don't know ahead of time how much data you have
to store

Linked
List
ptr-to-
node
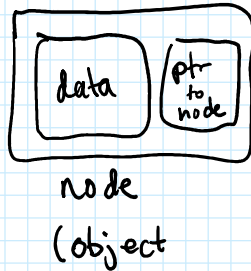
node
(object

8, 6, 7, 5

Create new node

insert data
connect ptr

LL → null ptr

LL →|7|•|→|6|•|→|8|•|→ null
head   tail
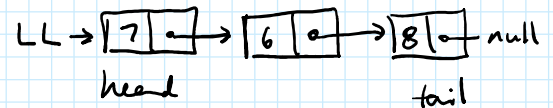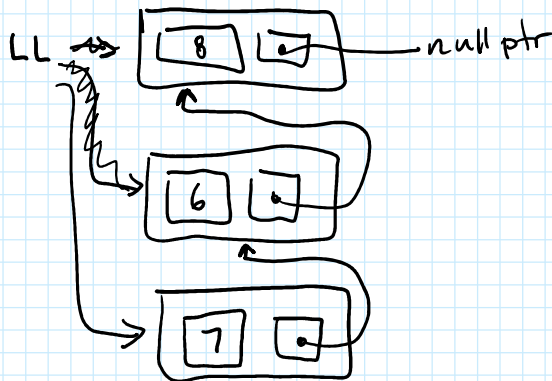
if there are N in LL

- does N affect insertion time? NO
  Big O Notation   insertion $O(1)$
       ↓
     order

- lookup : find K^{th} value in LL
  requires K iterations $O(N)$

Class node
value
ptr-to-node

class linked list
  ptr-to-node head
  insert (value)
  lookup-k-value (k) → k^{th} value