

* hashing : extend array to map
linked list

- unordered

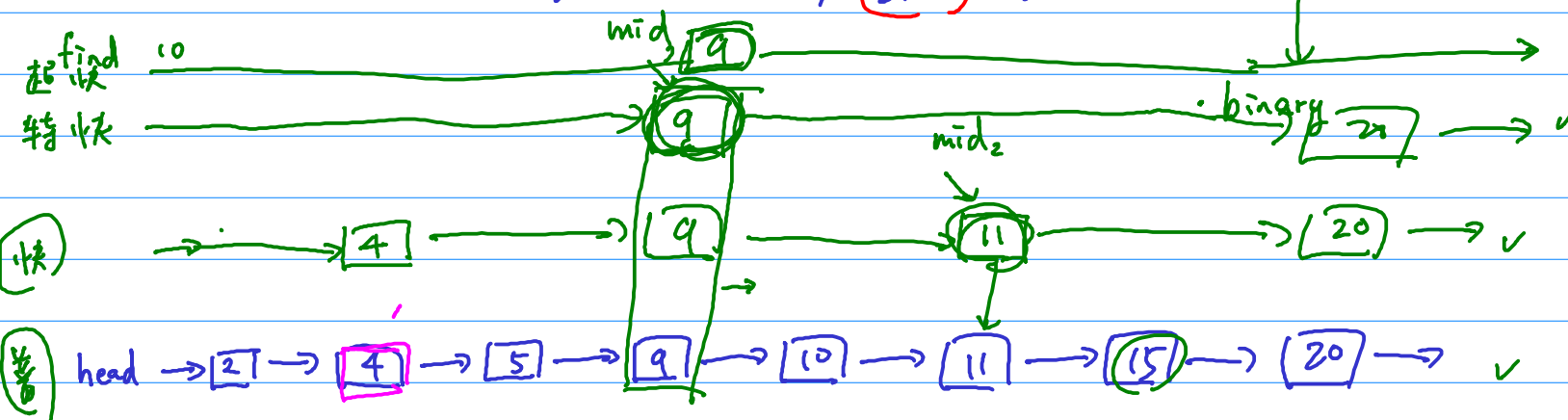


fast insertion, **slow** search

- **ordered**

slow insertion, **slow** search

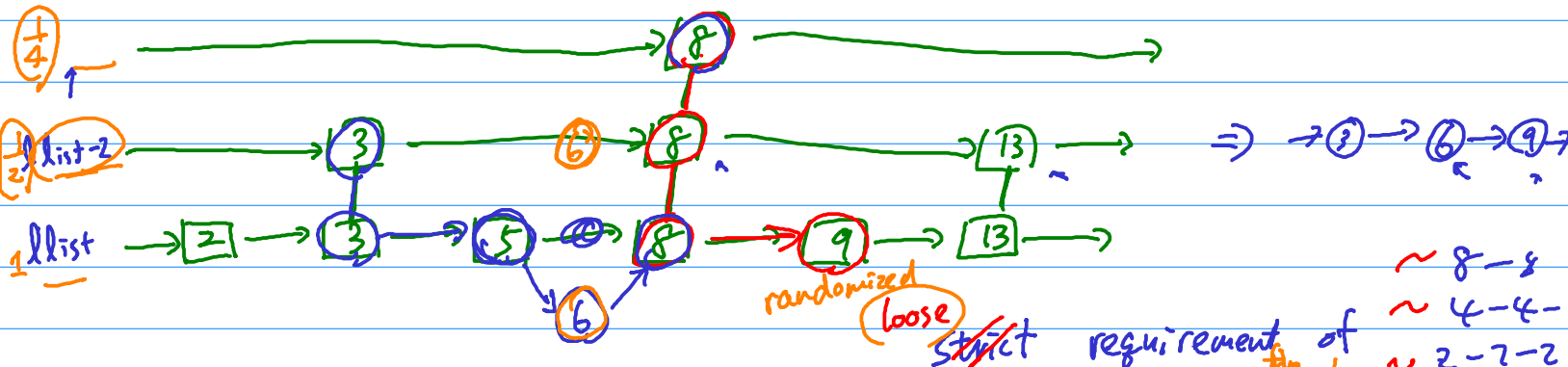
sequential



skip list : (n) linked list (ordered)

$(\frac{n}{2})$ + "faster" linked list
 $(\frac{n}{4})$ + "faster faster" llist
 \vdots
 + list of guard
 + list of mid

$(\frac{1}{8})$



$O(n)$ if update upper llists

~ 8-8
 ~ 4-4-
 ~ 2-2-2