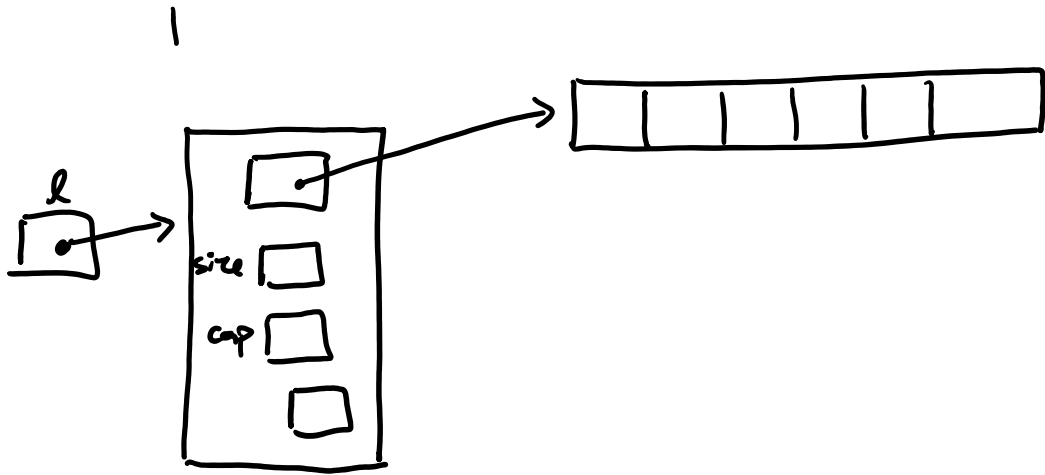


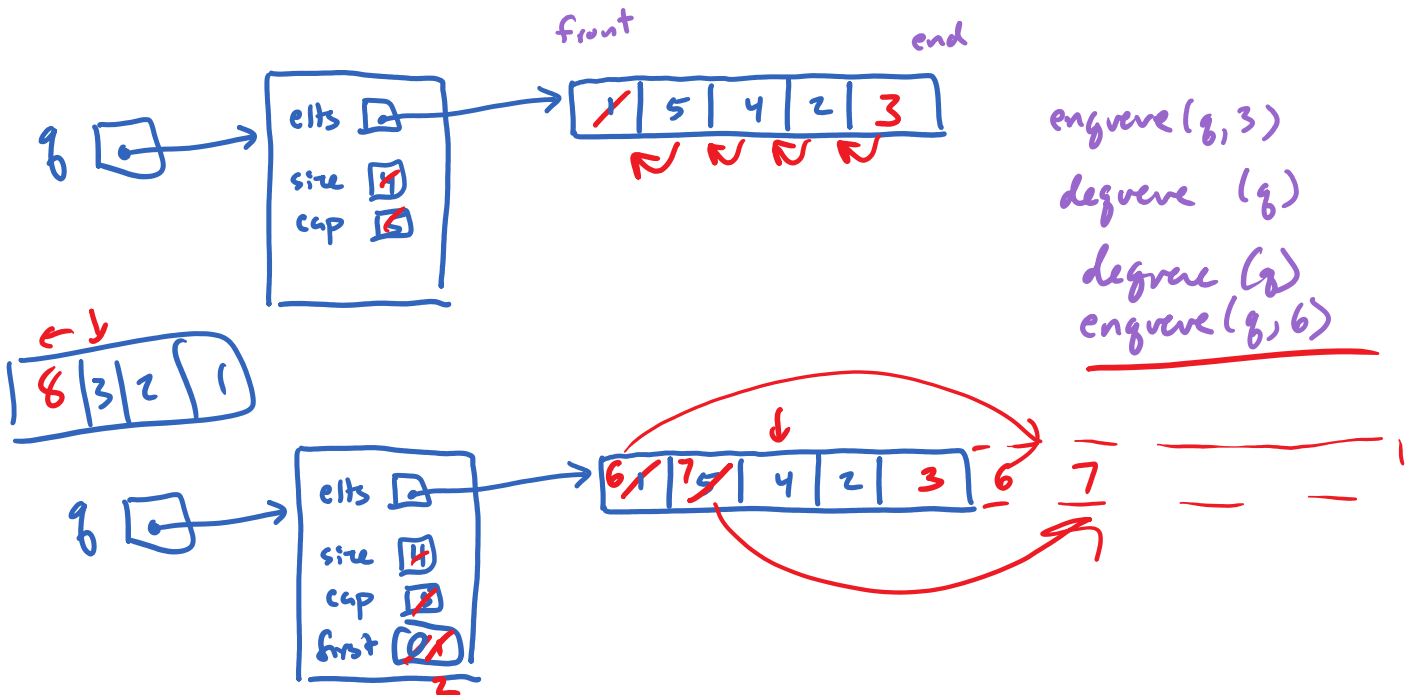
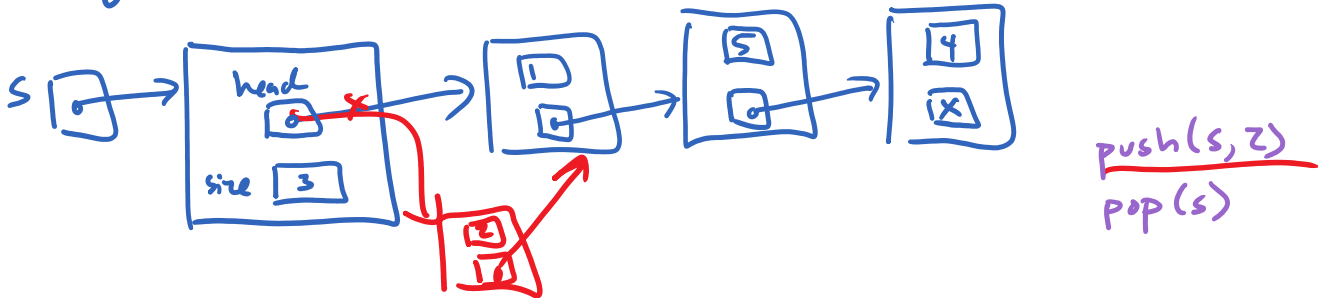
List Implementations

	standard array	wrapped array	singly linked	doubly linked
size	$O(1)$	$O(1)$	$O(1)$	$O(1)$
get	$O(1)$	$O(1)$	$O(n)$	$O(n)$
add beginning arbitrary end - stack push	$O(n)$ $O(n)$ $O(1)$ amortized	$O(1)$ amort $O(n)$ $O(1)$ amort	$O(1)$ $O(n)$ $O(n)$	$O(1)$ $O(n)$ $O(1)$
remove beginning arbitrary end - stack pop	$O(n)$ $O(n)$ $O(1)$ amortized	$O(1)$ amort $O(n)$ $O(1)$ amort	$O(1)$ $O(n)$ $O(n)$	$O(1)$ $O(n)$ $O(1)$
contains / find	$O(n)$	$O(n)$	$O(n)$	$O(n)$



Other Linear Data Structures

	set/add/remove @ arbitrary index	add @ front	add @ back	remove front	remove back
list	✓	✓	✓	✓	✓
queue (FIFO)	✗	✗	✓	✓	✗
stack	✗	✗	✓	✗	✓
deque	✗	✓	✓	✓	✓



Blob finding

```
size_t blob_rec(img, r, c, color, visited)
{
```

0123456789
 0. @
 1. (@
 2. @@
 3. @@ ..
 4. @@@ @@@ ..
 5. @@ ..
 6.
 7.
 8.
 9.

z

