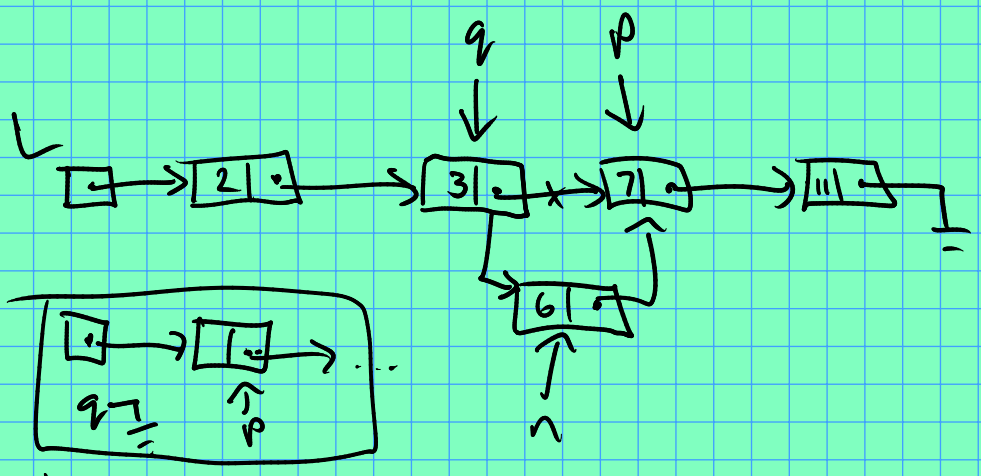
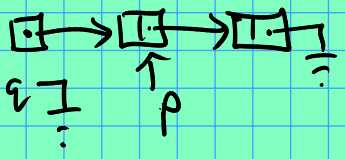
Exercise: maintain a sorted list.



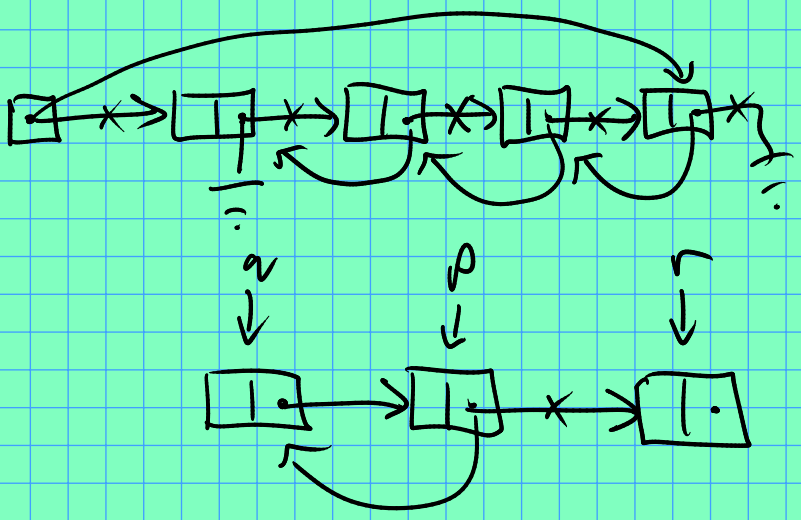
How to set up q, p?

```
node *p, *q;
p = L; q = NULL;
while (p != NULL && p->data < x) {
        q = p;
        p = p->next;
}
// reached end of list, OR want
// to insert new node between q, p.
n = new node;
n->data = x;
n->next = p;
if (q == NULL)
    L = n;
else
    q->next = n;
```

Possible special cases:



Exercise: Reverse a list, just by re-arranging the arrows!


q
p
r