

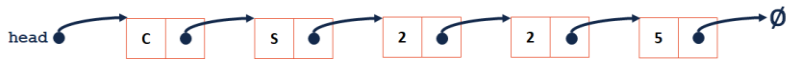
Finding in a list:

```

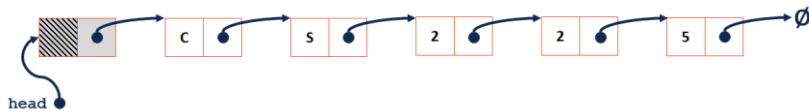
List.cpp
1  #include "List.h"
2
3  ListNode *& List::_find(unsigned index) const {
4
5
6
7
8
9
10
11
12 }

```

1. What is the return type of `_find`?



2. The use of a **sentinel head node**:



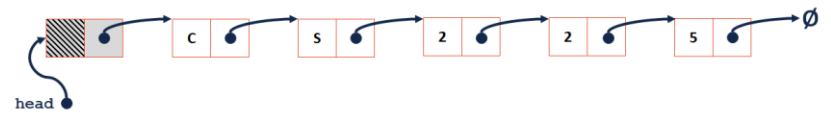
3. Cost of sentinel node?

Class templates:

```

List.cpp - get()
11 T & List::get(unsigned index) const {
12
13
14
15
16 }

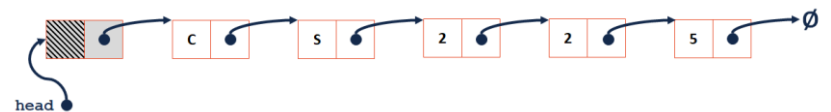
```



```

List.cpp - insert()
11 T & List::insert(T & t, unsigned index) {
12
13
14
15
16 }

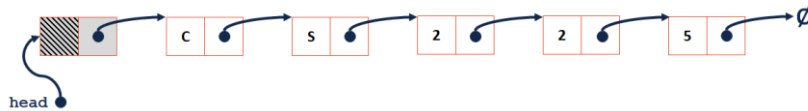
```



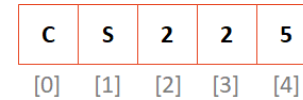
```

List.cpp - remove()
11 T & List::remove(unsigned index) {
12
13
14
15
16 }

```

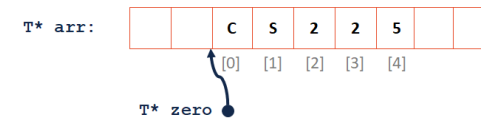


1. What is the running time of `insertFront()`?



2. What is our resize strategy?

3. What is the running time of `get()`?



### List Implementation #2: \_\_\_\_\_

```

List.h
1 #ifndef LIST_H
2 #define LIST_H
3
4 template <class T>
5 class List {
6 public:
7     /* ... */
28 private:
29
30
31
32 };
33
34 #endif

```

### Implementation Details:



	Singly Linked List	Array
Insert/Remove at <b>front</b>		
Insert at <b>given</b> location		
Remove at <b>given</b> location		
Insert at <b>arbitrary</b> location		
Remove at <b>arbitrary</b> location		

CS 225 – Things To Be Doing:
<ol style="list-style-type: none"> <li>Exam #2 (Programming) finishes today</li> <li>MP2 is due Sept. 25; Max EC w/ Part 1 now!</li> <li>Lab Extra Credit → Attendance in your registered lab section!</li> <li>Daily POTDs</li> </ol>