An instance contains a list of objects.

ArrayList is in package java.util.
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Adding objects to an ArrayList

When first created, the size of the list is 0.

b.size() = the number of objects in the list.

ArrayList is in package java.util.
Inserting an element

Inserting an element at a position takes time proportional to the number of elements that have to be shifted down.
Retrieving an element

b.get(k) = the name of the object at position k

ArrayList

add(Object)
add(int, Object)
get(int)

b.get(2) = a4

ArrayList is in package java.util.
Setting an element

```
b.set(2, true) changes the element at position 2 to a wrapped true and returns the object previously at position 2.
```

<table>
<thead>
<tr>
<th>ArrayList</th>
<th>size()</th>
<th>toString()</th>
</tr>
</thead>
<tbody>
<tr>
<td>a0</td>
<td>0</td>
<td>a1</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>a8</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>a6</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>a2</td>
</tr>
</tbody>
</table>

```
add(Object)
add (int, Object)
get(int)
```

<table>
<thead>
<tr>
<th>a1</th>
<th>abc</th>
<th>String</th>
</tr>
</thead>
<tbody>
<tr>
<td>a4</td>
<td>85</td>
<td>Integer</td>
</tr>
<tr>
<td>a2</td>
<td>5</td>
<td>Integer</td>
</tr>
<tr>
<td>a6</td>
<td>true</td>
<td>Boolean</td>
</tr>
<tr>
<td>a8</td>
<td>7</td>
<td>Integer</td>
</tr>
</tbody>
</table>
Setting an element

b.remove(1) removes the object at position 1 of the list.

```
0  a1      ArrayList
1  a6
2  a2

size()   toString()
add(Object)
add (int, Object)
get(int)

b  a0
```

```
0  a1    String
   abc

1  a4    Integer
   85

2  a2    Integer
   5

3  a6    Boolean
   true

4  a8    Integer
   7
```