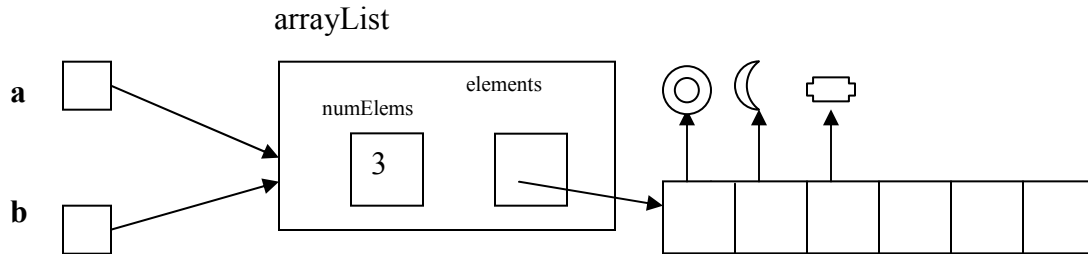
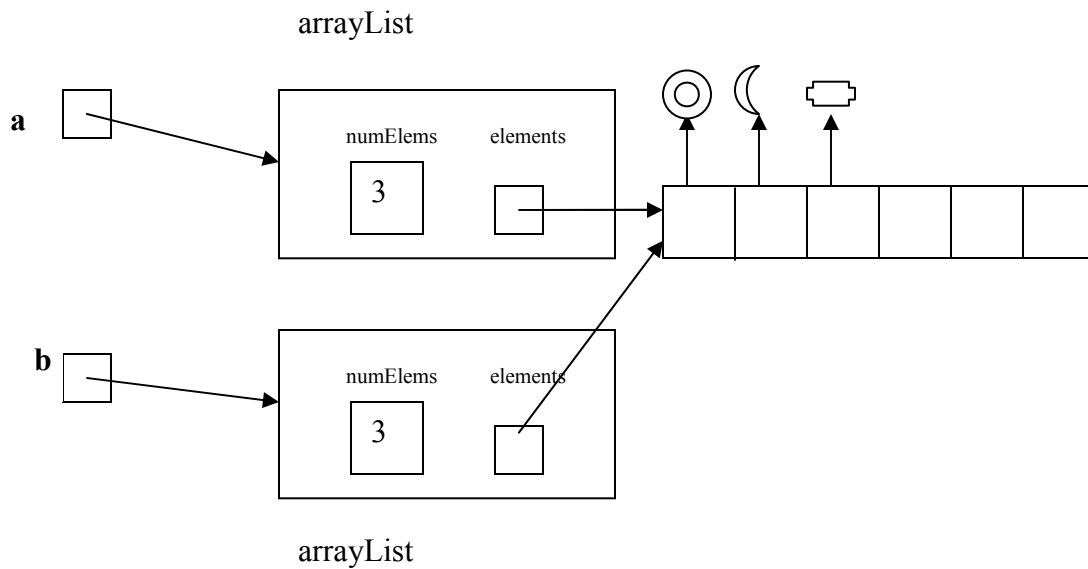


## CSC143 Different Types of Copies

**Alias:** Two references bound to one object

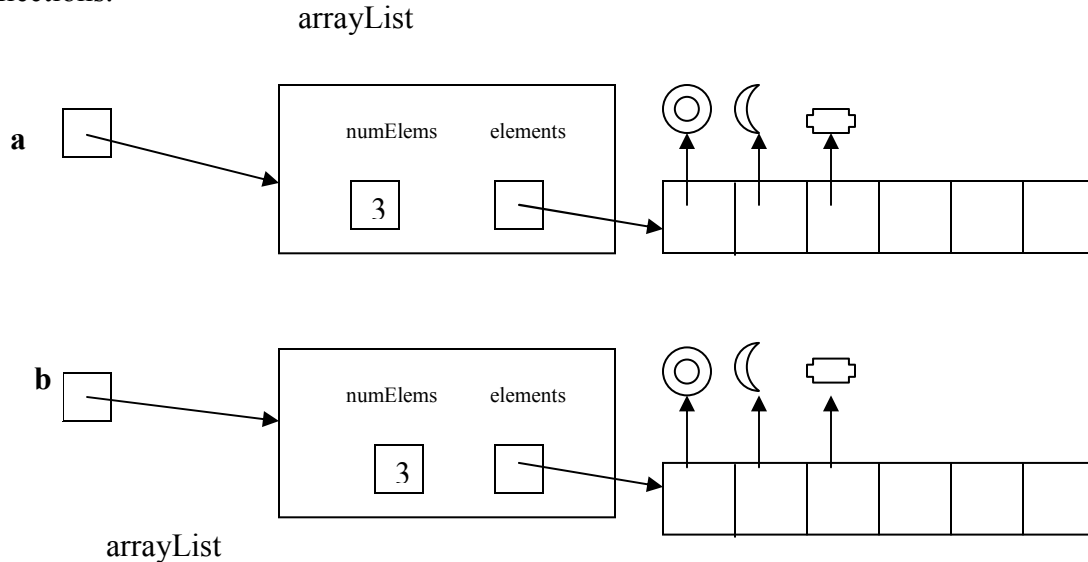


**Shallow Copy:** Two objects each with their own instance variables. The instance variables that are references are aliases.



What would happen if we executed `b.remove(0)` ?

**Deep Copy:** Absolutely nothing shared between the two objects. Can't guarantee with Java unless you write the code to do this. This is not possible with the general collections.



**Java Collection Deep Copy:** Two objects, each with their own instance variables. Each instance variable is bound to its own object. Beyond that, there is no guarantee of uniqueness.

