Quiz #1B

Name:

READ THE QUESTIONS CAREFULLY!!! DO NOT WASTE TIME DOING MORE THAN IS ASKED FOR. DO NOT IMPLEMENT METHODS UNLESS SPECIFICALLY REQUESTED. YOU DO NOT NEED TO COMMENT THE CODE. YOU MAY USE T INSTEAD OF AnyType. IN QUESTION 2 IF YOU INVoke AN ARRAYLIST METHOD YOU MUST SHOW THE IMPLEMENTATION OF THE METHOD.

1. Write an interface cop3530.List with the public methods below. (This is a different interface than what you wrote for program 1, but the principles are identical.) List is the name of the generic interface that stores identically typed items and has the following functionality:

   - Three accessors: contains returns true if a specified object is found in the set; returns false otherwise. isEmpty, tests if the List is empty; and size returns the number of elements currently stored in the List container.

   - Two mutators: One makes the List empty; the other (add) inserts a new item.

2. Provide a generic class cop3530.ArrayList that implements the List interface. Represent the ArrayList internally as a primitive array, and a size data member. After listing the data fields, you may use ... to indicate the rest of the body of this class, except for the following which must be implemented:

   (a) Implement a zero parameter constructor.

   (b) Implement add. You must expand the array as appropriate.