

1. Write a method **findLongest** which accepts an ArrayList of String objects and returns the longest String.

2. An ArrayList contains these values: [8, 5, 2, 4] Write out the state of the data after each pass of a selection sort:

pass 1: _____

pass 2: _____

pass 3: _____

3. An ArrayList contains these values: [8, 5, 2, 4] Write out the state of the data after each pass of an insertion sort:

pass 1: _____

pass 2: _____

pass 3: _____

4. Write code that does the following:

- Create an ArrayList of Frog objects
- Add a Frog
- Make that Frog hop 10 spaces

(continued on back)

5. You are given an ArrayList which already contains over 1000 Strings. The ArrayList is sorted. Write code to delete all duplicate entries.

```
ArrayList<String> stuff = new ArrayList<String>();  
//code not shown fills stuff with a wonderful collection of Strings  
//code not shown sorts the list
```

6. Write out the contents of the ArrayList after each line of code is run:

```
ArrayList<String> stuff = new ArrayList<String>();  
stuff.add("A");  
stuff.add("C");  
stuff.add("B");  
stuff.add(1, "E");  
stuff.set(0, "F");  
stuff.add("G"+stuff.size());  
stuff.remove(2);
```

7. Assume many more items have been added to the ArrayList from problem 6. Write code which swaps the values in the first and last spots of the ArrayList.