Using the documentation as posted at [https://docs.oracle.com/javase/8/docs/api/](https://docs.oracle.com/javase/8/docs/api/), answer the following questions.

1. Consider the method `ArrayList.indexOf`. Also, let's say we have a `list` as created by these statements:

   ```java
   ArrayList<String> list = new ArrayList<>();
   list.add("hi");
   list.add("there");
   list.add(null);
   list.add("baloney");
   list.add("hi");
   ```

   a. What type does the `indexOf` method return?

   b. What would `list.indexOf("hi")` return?

   c. Which of the following is well-typed? There might be more than one.

   1. `ArrayList.indexOf("hi")`
   2. `list.indexOf("hi")`
   3. `indexOf("hi")`
   4. `list.indexOf()`
   5. `ArrayList.indexOf()`
   6. `list.indexOf(new ArrayList<Integer>())`
   7. `ArrayList.indexOf("hi","there")`
   8. `indexOf("hi","there")`
   9. `list.indexOf("hi","there")`

   d. What would `list.indexOf(null)` return?

   e. What would `null.indexOf(list)` return?

2. Now, consider two-parameter `ArrayList.add`, with the same setup (`list`) as above.

   a. What type does the two-parameter `add` method return?

   b. What would be the contents of the list after `list.add(2, "friend");` is executed?

   c. Ignoring any change from (b), what would happen if you call `list.add(4, "folks");`? What about `list.add(5, "folks");`? What about `list.add(0,"folks");`?