Exercises marked with a ⋆ involve writing programs. These exercises do not have accompanying solutions. You are encouraged to work them out on your own. If you need help with any of them, please reach out to the course staff.

Exercise 1. Suppose a Java program called `Fruits.java` is run as follows:

```
$ java Fruits Apple Banana Cherry Durian Fig Gooseberry Jackfruit
```

a. How many command-line arguments does the program receive, ie, how many values does `args` in the entry-point function
   `public static void main(String[] args) { ... }` contain?

b. What is the value of `args[0]`?

c. What is the value of `args[4]`?

Exercise 2. Consider the following program:

```java
import stdlib.StdOut;

public class Mystery {
    public static void main(String[] args) {
        StdOut.print("Hi ");
        StdOut.print(args[5]);
        StdOut.print(", ");
        StdOut.print(args[3]);
        StdOut.print(", and ");
        StdOut.print(args[1]);
        StdOut.println("!");
    }
}
```

What does the program write as standard output when it is run as follows?

```
$ java Mystery Alice "Bob Carol" Dan Eve Fred George
```

Exercise 3 (⋆)**.** Write a program called `FiveHellos.java` that writes the message `"Hello, World"` five times as standard output.

```
$ java FiveHellos
Hello, World
Hello, World
Hello, World
Hello, World
Hello, World
```

Exercise 4 (⋆)**.** Write a program called `Echo.java` that receives a string as command-line input and writes the string back as standard output.

```
$ java Echo "Java is fun!"
Java is fun!
```

Exercise 5 (⋆)**.** Write a program called `Reverse.java` that receives five strings as command-line inputs and writes them in reverse order as standard output.

```
$ java Reverse Alice Bob Carol Eve Fred
Fred
Eve
Carol
Bob
Alice
```

Exercise 6 (⋆). Write a program called `Phone.java` that receives an area code (String), exchange code (String), and subscriber number (String) as command-line arguments, and writes the corresponding phone number (in `+1 (XXX) XXX-XXXX` format) as standard output.

```
$ java Phone 728 560 3845
+1 (728) 560-3845
```

<div align="center">**Solutions**</div>

Solution 1.

a. 7

b. `"Apple"`

c. `"Fig"`

Solution 2.

```
Hi George, Eve, and Bob Carol!
```

Solution 3. Discuss with course staff.

Solution 4. Discuss with course staff.

Solution 5. Discuss with course staff.

Solution 6. Discuss with course staff.