Instructions: This lab will test your knowledge of arrays. The program does not take any user input.

1. Create an array called `myNumbers` to store 100 integers

2. Using a loop and the Random class, store randomly generated integers between 0 and 99 at each index in the array

3. **Write the following methods within your class:**
   
   1. `public static void printAllNumbers()` - print the contents of the array to the screen. e.g. 7 33 98 33 9 ... 2 52
   
   2. `public static void printLargestNumber()` - print the largest of all the numbers stored in the array. (hint – use `Integer.MIN_VALUE` to initialize the variable you use to store the maximum number).
   
   3. `public static void printAverageNumber()` - print the average of all the numbers stored in the array.
   
   4. `public static void printEveryOtherNumber()` - print every other number in the array starting at index 0.
   
   5. `public static void copyAndPrintEvenNumbers()` - count and then copy the even numbers in `myNumbers` to a new array called `myEvenNumbers` that has the exact size as there are even numbers in `myNumbers` (in other words, you must count the amount of even numbers in `myNumbers` before creating `myEvenNumbers`). Once you have done that, print all the numbers in `myEvenNumbers`.

4. From within your main method, call each of the other methods sequentially, along with a descriptive heading. e.g:
   
   ```java
   System.out.println("The numbers stored in the array are: ");
   printAllNumbers();
   System.out.println();
   ```

5. Demonstrate your program to the TA to receive a grade.