Tutorial 5: Testing

Part I: Tutorial Exercises

These exercises are designed to help you practice developing black-box test cases.

1. Design BBT test cases to test each of the basic procedures in the class named `Toolkit`, whose design and code is provided in an attached file.

2. Design BBT test cases to test at least the following three procedures of the provided `Arrays` class: `min`, `countNegatives`, `length`.

Part II: Modified textbook exercises

10.3. Implement an iterator that yields all Fibonacci numbers.

A Fibonacci number is the sum of the preceding two Fibonacci numbers, and the first Fibonacci number is 0. For example, the first seven Fibonacci numbers are 0, 1, 1, 2, 3, 5, and 8.

Define test cases for this iteration abstraction.

Purpose: test if the iteration generates the correct sequence

What to do: create test cases for different sequence lengths

What is the expected behavior for sequence length of 0, 1, 2, 3, 4…?

```
TCs (len) -> sequence:
  1     -> [0]
  2     -> [0, 1]
  3     -> [0, 1, 1]
  4     -> [0, 1, 1, 2]
  5     -> [0, 1, 1, 2, 3]

while (ite.hasNext()) {
  int nextNum = ite.next();
}
```