Thread Exercise

1. Discuss (no need to implement) how to use threads to compute the size of a tree.

2. Define a method that creates a two dimensional array with random values. The method takes as parameter the dimensions of the array and returns the array.

3. Using the previous method, define a method that computes the sum of elements in a two dimensional array, by using one thread per row. Compare the efficiency of this program against one that uses only one thread. Try different array sizes. Remember that you must avoid data races.

   For time computation use the following code fragment:

   ```java
   long startTime = System.currentTimeMillis();
   /* TASK YOU WANT TO TIME */
   long endTime = System.currentTimeMillis();
   System.out.println("Processing time (msec): " + (endTime - startTime));
   
   Do you see an advantage to using threads? Discuss.
   ```