Codigo ejercicios 1.

```
import java.util.Random;

  /**
 *
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 */

  public class Datos {



      public static void main(String [] args){
         int n = 100000000;


        ArrayMax(f(n),n-1);
        groupSum(0,f(n),-1);
         fibonacci(n);
         }

  public static int[] f(int size) {
     int max = 20;
     int[] array = new int[size];
     Random generator = new Random();
     for (int i =0; i<size; i++)
        array[i] = generator.nextInt(max);
     return array;
  }
/*punto 1.2 del laboratorio*/
```

```
   public static int ArrayMax( int []A ,int n ){
            int  i, max, temp;
      max = A[n];
      if (n != 0 ){
         temp= ArrayMax(A, n-1);
         if(temp > max){

            max = temp;

         }
      }
      return max;

   }

/*punto 1.1 del laboratorio*/

   public static boolean groupSum(int start, int[] nums, int target) {
      if (start >= nums.length) return target == 0;
      return groupSum(start + 1, nums, target - nums[start])
      || groupSum(start + 1, nums, target);
   }

/*punto 1.3 del laboratorio*/

   public static long fibonacci(int n) {
      if (n <= 1) return n;
      else return fibonacci(n-1) + fibonacci(n-2);
   }
```

```
}
```