Codigo ejercicios 1.

```
import java.util.Random;

  /**
 *
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 */

  public class Datos {



      public static void main(String [] args){
         int n = 100000000;
         int a,b,c,d;
         a=10;
         b=20;
         c=100;
         d=1000;
        ArrayMax(f(n),n-1);
        groupSum(0,f(n),-1);
         fibonacci(a);
         fibonacci(b);
         fibonacci(c);
         fibonacci(d);



         }
```

```
   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);
    }
}
```