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import java.util.Scanner;
import java.util.ArrayList;
import java.util.Random;
public class BulgarianSolitaire {

    public static void main(String[] args) {
        Scanner scanny = new Scanner(System.in);
        System.out.println("Enter in the Nth triangular
number: ");
        int greatNum = scanny.nextInt();
        int tot = triangularNumber(greatNum);
        scanny.close();

        ArrayList <Integer> ideal = new ArrayList<Integer>();
        for (int index = greatNum; index >= 1; index--) {
            ideal.add(index);
        }

        ArrayList <Integer> list = new ArrayList<Integer>();
        Random randy = new Random();
        int num;
        while (tot > 0) {
            num = randy.nextInt(tot)+1;
            list.add(num);
            tot = tot - num;
        }
        System.out.println(list);

        boolean check = false;
        int moves = 0;
        while (check == false) {
            int count = 0;
            for (int index = 0; index < list.size(); index++)
            {
                list.set(index, list.get(index)-1);
                count ++;
                if (list.get(index) == 0) {
                    list.remove(index);
                    index --;
                }
            }
            list.add(count);
            System.out.println(list);

            for (int pindex = 0; pindex < ideal.size();
pindex ++) {
                if (list.contains(ideal.get(pindex))) {

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                check = true;
            }
            else {
                check = false;
                break;
            }
        }
        moves++;
    }
    System.out.println("The numbers of moves taken: "
+moves);
}

static public int triangularNumber(int userNum) {
    int total = 0;
    for (int adder = 0; adder <= userNum; adder ++ ) {
        total += adder;
    }
    System.out.println("Sum of terms: " +total);
    return (total);
}
}
```