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import java.util.ArrayList;
import java.util.Random;
public class ArrayListExercises {

    public static void main(String[] args) {

        int n = 66;
        bulgarianSolitaire(n);

    }

    /**
     * Removes all of the strings of even length from the given list
     * @param listOfStrings the list of Strings (list can be empty)
     * @return the given list with all even length strings removed
     */
    public static ArrayList<String> removeEvenLength(ArrayList<String> listOfStrings) {
        for (int x = 0; x < listOfStrings.size(); x++) {
            if (listOfStrings.get(x).length() % 2 == 0) {
                listOfStrings.remove(x);
                x -= 1;
            }
        }
        return listOfStrings;    // This return statement should be last
    }

    /**
     * Moves the minimum value in the list to the front, otherwise preserving the order of the elements
     * @param listOfIntegers the list of Integers (list cannot be empty)
     * @return the given list with the minimum value in the front (zeroth element)
     */
    public static ArrayList<Integer> minimumToFront(ArrayList<Integer> listOfInts) {
        int min = listOfInts.get(0);
        for (int x = 0; x < listOfInts.size(); x++) {
            if (min > listOfInts.get(x)) {
                min = listOfInts.get(x);
            }
        }
        listOfInts.remove(listOfInts.indexOf(min));
        listOfInts.add(0,min);
        return listOfInts;    // This return statement should be last
    }

    /**
     * Removes all elements from the given list whose values are in the range min through max (inclusive).
     * If no elements in range min-max are found in the list, the list's contents are unchanged.
     * If an empty list is passed, the list remains empty. Assume min < max.
     * @param listOfInts the list of Integers (list can be empty)
     * @param min the minimum value in the range
     * @param max the maximum value in the range
     * @return the given list with the range min-max removed
     */
    public static ArrayList<Integer> filterRange(ArrayList<Integer> listOfInts, int min, int max) {
        listOfInts.removeIf(x -> (x <= max && x >= min));
        return listOfInts;    // This return statement should be last
    }

    /**
     * Models/simulates the game of Bulgarian Solitaire.
     * @param numCards the number of cards to start with; n must be a triangular number (a triangular
     * number is a number that can be written as the sum of the first n positive integers).
     */
    public static void bulgarianSolitaire(int numCards) {

        // Check if given number of cards is triangular
        int n = (int) Math.sqrt(2*numCards);
        if (n*(n+1)/2 != numCards) {
            System.out.println(numCards + " is not triangular");
        }
    }
}

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    return;
}
Random y = new Random();
ArrayList <Integer> variableName = new ArrayList <Integer> ();
ArrayList <Integer> variableName2 = new ArrayList <Integer> ();
int sum = 0;
int last = 0;
int sum2 = 0;
int sum3 = 0;
for (int x = 1; x <= numCards; x++) {
    variableName.add(x-1,y.nextInt(numCards)+1);
    sum += variableName.get(x-1);
    if (sum >= numCards) {
        last = numCards - sum + variableName.get(variableName.size() - 1);
        variableName.set(variableName.size() - 1, last);
        break;
    }
}
for (int x = 1; x <= numCards; x++) {
    if (sum2 >= numCards) {
        break;
    }
    sum2 += x;
    variableName2.add(x);
}
System.out.println(variableName);
while (!variableName.containsAll(variableName2)) {
    for (int x = 0; x < variableName.size(); x++) {
        variableName.set(x,variableName.get(x)-1);
        sum3++;
    }
    for (int x = 0; x < variableName.size(); x++) {
        if (variableName.get(x) == 0) {
            variableName.remove(x);
            x--;
        }
    }
    variableName.add(variableName.size(), sum3);
    System.out.println(variableName);
    sum3 = 0;
}
}
}
}

```