OOP Homework 3

Create Account on CodingBat.com and share progress with j.brucker@ku.th

- 1. Go to codingbat.com and create an account. Input your **real name** (in English) on the account.
- 2. Go to the "prefs" section ("prefs" link in upper right corner of page). In the "Teacher Share" section, enter j.brucker@ku.th.

NOTE: Input your real and share results with j.brucker@ku.th so I can see what problems you solved and give you a score. If you omit either of these (your name or not sharing) then no credit.

1. On codingbat.com solve (at least) these problems in the Recusion-1 group:

factorial fibonacci triangle sumDigits changeXY stringClean

And solve these problems in the Recursion-2 group: groupSum - we will use something like this in a future lab groupSum6 groupNoAdj splitArray

2. Write a class named **Recursion** in the default package containing this method. Commit your code to Github as a project named Homework3.

```
*Remove duplicate consecutive items from a list, changing the list parameter.

*For example, if list = { a, b, b, b, c, b, c, c} then after calling unique the list

* will contain {a, b, c, b, c}. Only consecutive duplicates are removed.

* Objects are compared using their own equals method.

* @param list of any kind of object. The elements are not null.

* @return reference to the list parameter with consecutive duplicates removed.

*/

public static List unique(List list)
```

Requirements: Don't create any new lists. Do everything using the original list. Use the subList() method of the List interface. subList() returns a <u>view</u> of part of the existing list (not a copy), so any changes you make to subList affect the original list.

```
For example:
List list = new ArrayList();
list.add(...); // add some elements
List sub = list.subList(1, list.size());
sub.remove(1); // removes element 2 from original list !
for(Object o: list) System.out.println(o);
// the output will show that an item was removed from list
```