Northeastern Illinois University
CS303A, Object-Oriented Programming and Data Structures
Homework: Recursion

Problem 1:

Create a Java class RecursiveMethods.java and create the following methods inside:

ALL THE METHODS NEED TO BE COMPLETED RECURSIVLY. NO LOOPS ALLOWED.

- `oddEvenMatchRec:` the method takes an integer array as a parameter and returns a `boolean`. The method returns `true` if every odd index contains an odd integer AND every even index contains an even integer(0 is even). Otherwise it returns `false`.

- `sumNRec:` The method takes an integer array A and returns the sum of all integers in the parameter array.

- `nDownToOne:` Takes an integer n and prints out the numbers from n down to 1, each number on its own line.

- `inputAndPrintReverse:` Inputs integers from the user until the user enters `0`, then prints the integers in reverse order. For this method, you may NOT use an array or any type of array structure, in other words, you may not use any structure to store the user input.

After completing the methods, use the main method to test them. You can hard code the tests.

General Instructions:

- No hard copies will be collected.

- Do not send your files through the email!

- You should submit your work by the due date, **No** extensions will be given. (See syllabus for late homework policy).

- DO **NOT** turn in multiple files, only one .zip file.

What to turn in:

There should be one **.java** file(RecursiveMethods.java) put it into a zip file and name it <YourFirstName_YourLastName>.zip, submit the zip file into the Dropbox on D2L.

How to zip multiple files?

On Windows: Select all the files > right click > Send to > Comprised File

On Mac: Select all the files > Click/Tap with two fingers > Compress Items