

## Program 10 – Recursion

### 100 points

**IMPORTANT**

You must write your code while **carefully following the “IT 179 Program Grading Guidelines”** described in the file **posted with Program 1**.

**Set-Up**

Create a new Java project named: **P10**. Next, inside the created Java project **P10**, create a Java package.

**Objective**

For this programming assignment, you're going to write 2 different small recursive programs.

**Program 1 – Find a sum (50 points)**

Solve exercise 6 on page 254 of your text (in chapter 5, Programming Projects) [edition 3]. The values will be command line arguments. The first argument will be the desired sum. Print the list of numbers that add up to the desired sum to the screen. If no such set of numbers exists, print the message: "Sum not found." Call your file **Sum.java**.

**Program 2 – Combinations of a string (50 points)**

Solve exercise 10 on page 254 of your text (in chapter 5, Programming Projects) [edition 3]. Instead of an array of characters, read the input as a string. Print the resulting sequences to the screen. Call your file **Combinations.java**.

**Submission**

Zip your .java files and submit the .zip file to the **Program 10** assignment on ReggieNet.

Grading will be in accordance with the Program Grading Criteria provided on the Important Resources page on ReggieNet.