

## CSC 220 – Lab 13

### Objective

In this lab, you are going to implement a program based on the given recursive definition.

### Java programs:

Modify the method that calculates the sum of the integers between 1 and  $N$  shown in slides. Have the new version named `Sum.java` match the following recursive definition: The sum of 1 to  $N$  is the sum of 1 to  $(N/2)$  plus the sum of  $(N/2 + 1)$  to  $N$ . Use your program to trace your solution with an  $N$  of 7. Then take a screen shot of the trace and keep the file in your Lab 13 folder. Your program should ask user to input a number  $N$  and calculate the sum of 1 to  $N$ . Exceptions should be handled properly.

### What to turn in:

JAR your `*.java` and the screen shot files into a file called `Lab13.jar`. When you're done, submit the file to Canvas by the deadline. No extensions.