CMPS 351: Fall 2013 Program #1
Date Assigned: Thursday, September 26, 2013 Due: Tuesday, October 8, 2013

For this project, you will write an MIPS assembly language program to query the user for the sides of a rectangle and then compute the perimeter and area of that rectangle. It should also compute the area of the related triangle. The equation for the perimeter of a rectangle is $2 \cdot l + 2 \cdot w$. The equation for the area of a rectangle is $l \cdot w$. The area of a triangle is $\frac{1}{2} l \cdot w$

Your program should include appropriate comments indicating what the code should be doing and what registers are being used for. After displaying the results, your program should exit cleanly. Please include your name and CLID in the program headers and include your CLID in the file names. Your programs should be turned in through Moodle before class starts on the due date. You should test your programs using the SPIM simulator to ensure their functionality before submitting them.

Example output:

```
Enter the length of the rectangle:  5
Enter the width of the rectangle:  3
The perimeter of the rectangle is 16.
The area of the rectangle is 15.
The area of the triangle is 7.

Enter the length of the rectangle:  7
Enter the width of the rectangle:  1
The perimeter of the rectangle is 16.
The area of the rectangle is 7.
The area of the triangle is 3.
```

Objectives:

1. To introduce the SPIM simulator for the MIPS assembly language.
2. To introduce and practice writing MIPS assembly language programs.