CECS 174 – Assignment 4

Math Libraries - Use the Math Class (http://docs.oracle.com/javase/6/docs/api/ -> Math) to help create your formulas for these two programs.

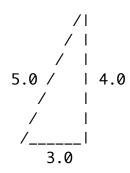
Write a program that will calculate different aspects of a right triangle given the lengths of the base and the height.

- 1. Prompt the user to input the base and the height.
- 2. Draw a generic right triangle using "/" and "l" and display the base, height and hypotenuse with one decimal point of precision on the matching sides. (Use the printf() function)(See below).
- 3. Calculate and display the following with 3 digit precision:
 - a. Hypotenuse $a^2 + b^2 = h^2$
 - b. Angles of the triangle (in degrees) $\sin \theta = \frac{a}{h}$ (sum of all angles = 180)
 - c. Perimeter
 - d. Area
- 4. Use the printf() function to ensure that your decimal points and "=" signs are aligned.

Example:

-- Triangle Calculator --

Please enter the Base and Height of the triangle: 3.0 4.0



- 3.000 = Base
- 4.000 = Height
- 5.000 = Hypotenuse
- 53.130 = Angle A
- 36.870 = Angle B
- 90.000 = Angle C
 - 6.000 = Area
- 12.000 = Perimeter