--> CSc 102 -- Practical 1 <--
35 + 15 = 50 MARKS

Deadlines

You must **complete and submit your solutions** up to and including *Task 4* by **5pm** on the day of your practical. Instructions for how to submit your work are given in each section. Work that is not submitted by this deadline *will not be marked*.

All remaining questions must be completed and submitted by **2pm** on the **Monday** after the practical.

Task 1: Draw a Rectangle [5 marks]
Write Java a program that will take in two command line parameters that are positive integers. Use these value to draw a rectangle using the "*" character.

 For example:

java rect 5 10	java rect 5 5

`*****`
`*   *`
`*   *`
`*   *`
`*   *`
`*   *`
`*   *`
`*   *`
`*   *`
`*****`
	`*****`
	`*   *`
	`*   *`
	`*   *`
	`*****`

Task 2: Draw Diamond [10 marks]

Write a Java program that will take in a command line parameter that is a positive integer. Use this value to draw a diamond using the "*" character.

For example:

java diamond 10	java diamond 5

<pre>   *
   * *
  *   *
 *   *
*   *
*   *
*   *
 *   *
  *   *
   * *
    *</pre>
	<pre> *
	* *
	* *
	* *
	 *</pre>

Task 3: Back to the Basics [10 marks]

Using the scanner class, read in two values, **x** and **y** and print the greatest common denominator (GCD) of the two numbers. The GCD is the biggest number that divides into both of them without leaving a remainder. If either of the integers is less than or equal to 0, print "bad input provided". **Note:** The user must provide **x** and **y**.

Task 4: LCM [10 marks]

Using the scanner class, read in two values, **x** and **y** and print the lowest common multiple (LCM) of the two numbers. The LCM is the smallest number into which both numbers can divide without leaving a remainder. If either of the integers is less than or equal to 0, print "bad input provided". **Note:** The user must provide **x** and **y**.

Code Submission: In order for your tutor to mark your program, you need to upload it to RUConnected using the submission link. If you do not submit your code on RUConnected your tutor can not mark it and you will get zero for this question.

Homework follows below

Task 5: [15 marks]

Write a Java program that reads in two numbers and a base (**2** to **10**, both inclusive). Your program should check that both numbers are valid, add the numbers using column wise addition and display the answers. **Hint**: We did this in class last term. :)