# CS 115 - Introduction to Programming in Python

# Lab Guide 02B

**Lab Objectives:** Loops, Nested Loops

1. Write a program that inputs two numbers from the user. The program should output the greatest common divisor of the two numbers. Your program should validate user input, the numbers should both be positive.

**Sample Runs:**

Enter first number: 0

Enter second number: -5

Numbers must be positive

Enter first number: 10

Enter second number: 5

The greatest common divisor of 10 and 5 is 5

1. Write a program that inputs positive integer value from the user. The program should find and display the second largest digit in the input number. Note: the number of digits may vary.

**Sample Run:**

Enter positive integer (negative to quit): 1429

The second largest digit in 1429 is 4

**Sample Run:**

Enter positive integer (negative to quit): 1234

The second largest digit in 1234 is 3

**Sample Run:**

Enter positive integer (negative to quit): -25

Number cannot be Negative

**Sample Run:**

Enter positive integer (negative to quit): 5

Number must be at least Two-digits

1. Write a script to input a number **n** (number of lines) and displays the below output.

**Sample Run**

Enter the number of lines:5

1

1 2 1

1 2 3 2 1

1 2 3 4 3 2 1

1 2 3 4 5 4 3 2 1