Lab4 – Loops

On Oct. 4th

1. Write a program that asks the user to enter two integers, then calculates and displays their greatest common divisor (GCD):

Enter two integers: 12 28

Greatest common divisor: 4

Hint: Let m and n be two numbers. If n is 0, m is GCD. Otherwise, compute the remainder when m is divided by n. Copy n into m and copy the remainder into n. Then repeat the process, starting with testing whether n is 0.

2. Write a program that asks the user to enter a fraction, then reduces the fraction to lowest terms:

Enter a fraction: 6 / 12

In lowest terms: 1 / 2

Hint: To reduce a fraction to lowest terms, first compute the GCD of the numerator and denominator. Then divide both the numerator and denominator by the GCD.

3. Write a program that prompts the user to enter a number *n*, then prints all even squares between 1 and *n*.

Enter a number: 100

Even squares:

4
16
36
64
100