ENGINEER 1D04

Engineering Computation

McMaster University, Winter 2010

Lab 5 Marked Assignment 2 Solution
Friday Lab

Revised: 13 February 2010

Correctness

Input 1	Input 2	Output
5	11	1
20	20	20
24	42	6

Design Question

Since the `GCD` method is looking for the greatest common divisor, it would be more efficient to start from k than from 1. Then the first common divisor found would be the GCD and the search could be stopped. The latter could be implemented with a while loop whose condition includes a boolean variable that is initially set to false but is set to true after a divisor is found.

Testing Question

Yes. Although the GCD of (m,n) and (n,m) is always the same, the `GCD` method may not do both computations the same. Therefore, it is necessary to test both cases.