

Assignment 1

Instructions:

- Write the code by yourself. **Adopting any unfair means will result in -100%.**
- **Your output should match the sample outputs. 10% marks for this.**
- Submit the codes in ELMS.

1. Write two recursive functions to find the GCD of x and y in two different ways, where x, y are positive integers. (Hint: use Euclid's algorithm. Two ways to solve this.)

Sample input	Sample output
12 6	6
6 45	3

2. Take n as input from the user. Calculate the sum of the following series up to n-th term using a **recursive** function.

$$2*3*4 + 4*5*3 + 8*7*2 + 16*9*1 + \dots$$

Sample input	Sample output
3	$24+60+112=196$
6	$24+60+112+144+0+(-832)=-492$