

**National Sun Yat-Sen University**  
**ASSEMBLY LANGUAGE AND MICROCOMPUTER**  
**Program #3**  
**Due 11:59 PM Dec 21 2023**

<**Programming Problem III**> Write an x86 assembly code to implement a *arithm* program which can compute the specified arithmetic functions and display the result on the screen. You just need to implement the three arithmetic functions shown in the following table.

op	Operation	function
1	Maximum	<i>max(intA,intB)</i>
2	greatest common divisor	<i>gcd(intA,intB)</i>
3	least common multiply	<i>lcm(intA,intB)</i>

Your program will receive three arguments **intA**, **intB** and **op** from the console. These arguments will be received as strings which will be converted into *positive integers*. For example, if you enter

**4 5 3**

Then the screen should display the following results:

**Function 3: least common multiply of 4 and 5 is 20.**

If you execute

**4 3 1**

Then the screen should display the following results

**Function 1: maximum of 4 and 3 is 4.**

You can develop your code in the following website:

*onecompiler/assembly/*

The following site also provides on-line emulation x86 program, which may help you debug your program.

*<https://carlosrafaelgn.com.br/Asm86/>*

You don't have to consider the invalid inputs such as

**4.2 -3 1**

The input arguments can be received using the relevant *int 80h* instructions. The display of the results on the screen should also use *int 80h* instructions.

You need to turn in your assembly code by the deadline.