



CSE341: Microprocessors
Department of Computer Science and Engineering

Assignment 04 (Lab 05)

Task 01

Write a program which takes in two numbers and prints all the numbers that are divisible by 3 within that range. [NOTE: The range is inclusive].

Sample Input:

29

Sample Output:

369

Explanation: The 2 numbers are 2 and 9(single characters) and hence within this range, the values 3,6 and 9 are divisible by 3.

[NOTE: Take the input i.e 29 in one line and the output i.e 369 in the next line.]

Task 02

Find the sum of the following sequence using loops and print the result. [NOTE: you can ignore overflow and display the summation using whatever symbols or characters it shows]

a. $-1 + 2 - 4 + 8 - 16 + \dots - 1024$

[NOTE: You need to find the summation of the above sequence, for example: a series looking like $1-2+4-8$ will have a sum of -5]

Task 03

Write a program which takes the 1st input and stores the number in AX, then takes the 2nd input and stores the number in DX and multiplies them using repeated summation and prints the result. You will not be able to use the “MUL” function here. And you do not have to take overflow into account.

Sample Execution:

236

Explanation: The user inputs are 2 and 3(single characters) and without using MUL, the repeated summation gives the output of 6 (single character).

Task 04

Write a program that will prompt the user to enter a hex digit character ("0" ... "9" or "A" ... "F"), display it on the next line in decimal, and ask the user if he or she wants to do it again. If the user types "k" or "K", the program repeats; if the user types “s” or “S” the program terminates. If the user enters an illegal character, prompt the user to try again

Sample execution:

ENTER A HEX VALUE: 9

CORRESPONDING DECIMAL IS 9

REPEAT? : k

ENTER A HEX VALUE: c

ILLEGAL CHARACTER, INSERT AGAIN: C

CORRESPONDING DECIMAL IS 12

REPEAT? : S

