

COAL Lab 12

Name: Sufiyaan Usmani

Roll No: 21K-3195

Section: BCS-3J

Instructor: Sir Kashan Hussain

Task 1:

```
1 // Sufiyaan Usmani
2 #include <iostream>
3 using namespace std;
4
5 int main()
6 {
7     unsigned short num1, num2, num3, product;
8     cout << "Enter first number: ";
9     cin >> num1;
10    cout << "Enter second number: ";
11    cin >> num2;
12    cout << "Enter third number: ";
13    cin >> num3;
14    _asm {
15        mov eax, 0
16        mov ax, num1
17        mul num2
18        mul num3
19        mov product, ax
20    }
21    cout << "Product: " << product << endl;
22    return 0;
23 }
```

Task 2:

```
1 // Sufiyaan Usmani
2 #include <iostream>
3 using namespace std;
4
5 int main()
6 {
7     unsigned short num1, num2, gcd, i;
8     cout << "Enter first number: ";
9     cin >> num1;
10    cout << "Enter second number: ";
11    cin >> num2;
12    _asm {
13        _loop:
14            mov ax, num1
15            cmp ax, num2
16            je _endLoop
17            cmp ax, num2
18            jle _else
19            sub ax, num2
20            mov num1, ax
21            jmp _loop
22        _else:
23            mov bx, num2
24            sub bx, num1
25            mov num2, bx
26            jmp _loop
27    _endLoop:
28        mov ax, num1
29        mov gcd, ax
30    }
31    cout << "GCD: " << gcd << endl;
32    return 0;
33 }
```

C:\WINDOWS\system32\cmd.exe

```
Enter first number: 16
Enter second number: 76
GCD: 4
Press any key to continue . . .
```