**Write a program in assembly language to perform subtraction of 8-bit data.**

**CODE**

org 100h

num1 db 45h

num2 db 15h

start:

mov al, num1

sub al, num2

mov ah, al

and ah, 0F0h

shr ah, 4

add ah, 30h

cmp ah, 39h

jle display\_upper

add ah, 8

display\_upper:

mov dl, ah

mov ah, 02h

int 21h

mov ah, al

and ah, 0Fh

add ah, 30h

cmp ah, 39h

jle display\_lower

add ah, 8

display\_lower:

mov dl, ah

mov ah, 02h

int 21h

mov ah, 4Ch

int 21h

**OUTPUT  
A computer screen with a black screen

Description automatically generated**

**2. Write an assembly language program to perform subtraction of 16-bit data.**

**CODE**

org 100h

num1 dw 1234h

num2 dw 5678h

start:

mov ax, num1

sub ax, num2

mov bx, 10

mov cx, 0

convert\_to\_decimal:

xor dx, dx

div bx

push dx

inc cx

test ax, ax

jnz convert\_to\_decimal

print\_digits:

pop dx

add dl, 30h

mov ah, 02h

int 21h

loop print\_digits

mov ah, 4Ch

int 21h

end start

**OUTPUT**  
A screenshot of a computer

Description automatically generated