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

#CODE

```
org 100h

num1 db 8Fh  ; Use a valid 8-bit value
num2 db 4Ch  ; Use a valid 8-bit value

start:
   mov al, num1
   sub al, num2

   mov bl, al

   mov ah, al
   and ah, 0F0h
   shr ah, 4
   add ah, 30h
   cmp ah, 39h
   jle print_first_digit
   add ah, 7

print_first_digit:
   mov dl, ah
   mov ah, 02h
   int 21h

   mov ah, bl
   and ah, 0Fh
   add ah, 30h
   cmp ah, 39h
   jle print_second_digit
   add ah, 7

print_second_digit:
   mov dl, ah
   mov ah, 02h
   int 21h

   mov ah, 4Ch
   int 21h
```

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

```
#CODE

org 100h

num1 dw 4D2Ah   ; Change this value to see different output
num2 dw 1A3Ch   ; Change this value to see different output

result dw ?

start:
   mov ax, num1
   sub ax, num2
   mov result, ax
   mov bx, result
   call print_number
   mov ah, 4Ch
   int 21h

print_number:
   mov cx, 4

print_loop:
   mov al, bl
   shr al, 4
   and al, 0Fh
   add al, 30h
```

```
    cmp al, 39h
    jle print_digit
    add al, 7

print_digit:
    mov dl, al
    mov ah, 02h
    int 21h

    shl bl, 4
    loop print_loop

    ret
```