Experiment – 9

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Write an assembly language program to separate the nibbles of a 16-bit number.

```
org 100h
.data
number  dw 0x1234

.code
start:
    mov ax, number
    mov bl, al
    and bl, 0Fh
    mov bh, ah
    shr bh, 4
    mov dl, bl
    add dl, 30h
    cmp dl, 3Ah
    jbe print_low
    add dl, 7h
print_low:
    mov ah, 2h
    int 21h
    mov dl, bh
    add dl, 30h
    cmp dl, 3Ah
    jbe print_high
    add dl, 7h
print_high:
    int 21h
    mov ah, 4Ch
    xor al, al
    int 21h

    end start
```