

Microprocessor

Just Note:

Program to read two digits such that the second digit is less than the first digit, computes and display their difference using TASM

.model small

.data

```
msg1 db "enter the first number: $"
msg2 db "Enter the second number: $"
msg3 db "difference is: $"
```

.code

main proc far

```
mov ax,@data
mov ds,ax
mov ah,09
mov dx,offset msg1          ; print the first message msg1
int 21h
mov ah,01h                  ; read the first number
int 21h
mov bl,al
sub bl,30h                  ; convert to decimal
mov ah,02h
mov dl,0dh                  ; carriage return
int 21h
mov dl,0ah                  ; line feed
int 21h
mov ah,09h
mov dx,offset msg2          ; print the second message msg2
int 21h
mov ah,01h                  ; read the second number
int 21h
mov bh,al
sub bh,30h                  ; convert to decimal
mov ah,02h
mov dl,0dh                  ; carriage return
int 21h
mov dl,0ah                  ; line feed
int 21h
mov dx,offset msg3          ; print the second message msg2
mov ah,09h
int 21h
sub bl,bh                  ; subtract
```

```

        add bl,30h                ; convert to ASCII
        mov ah,02h
        mov dl,bl
        int 21h
        mov ah,4ch                ; return control to DOS
        int 21h

main endp
end main

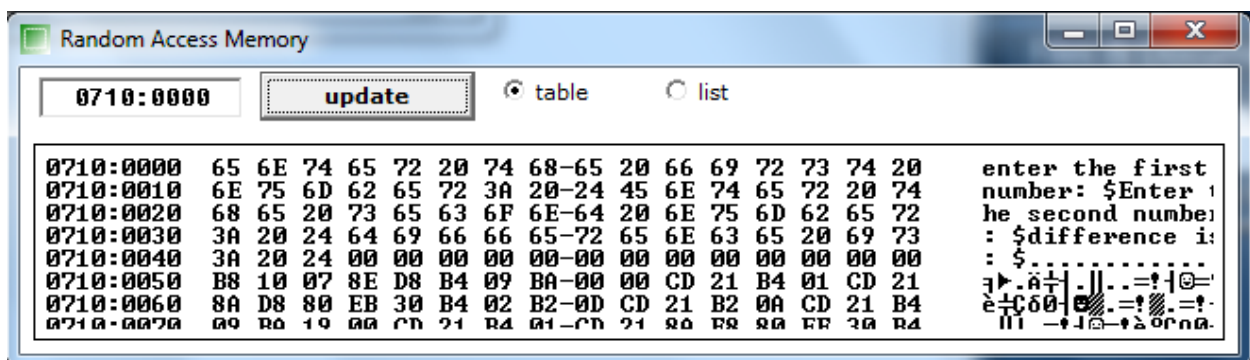
```

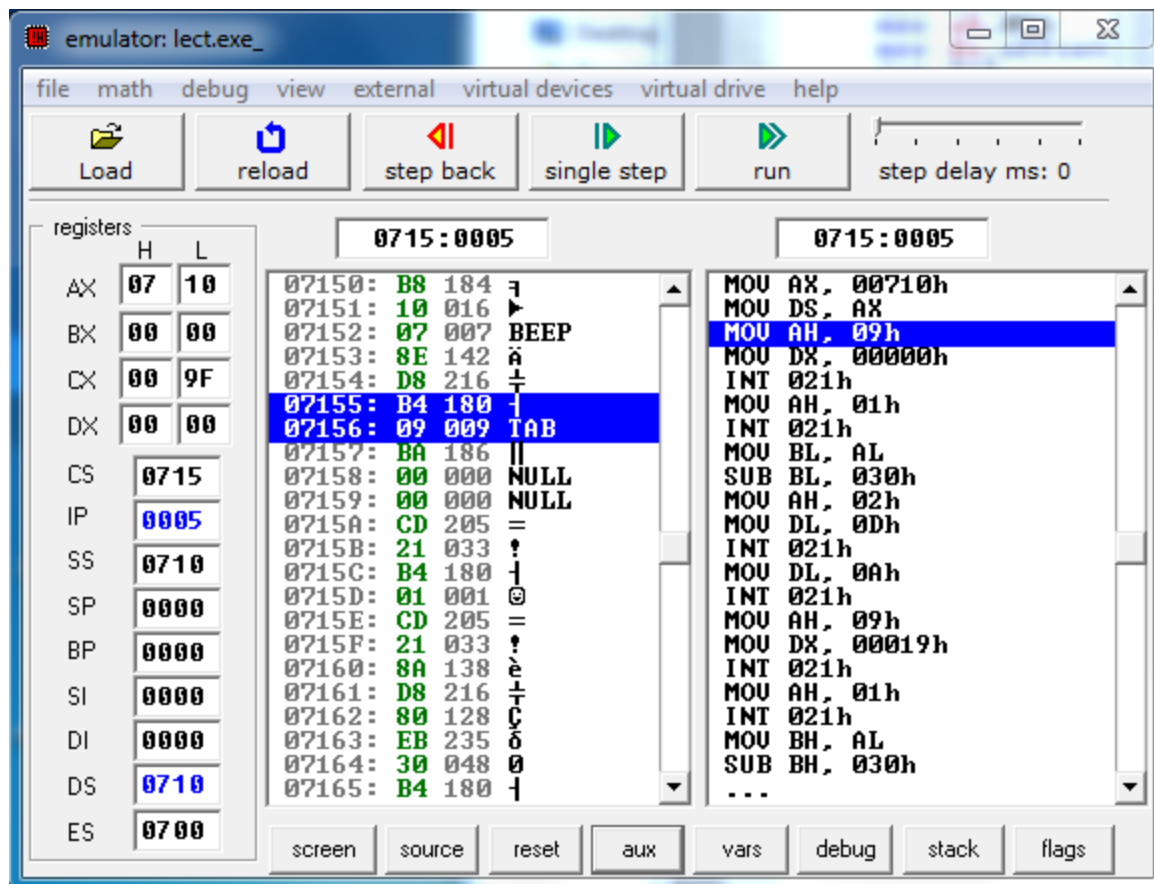
Using EMU8086

```

19      int 21h
20      mov dl,0ah
21      int 21h
22      mov ah,09h
23      mov dx,offset msg2
24      int 21h
25      mov ah,01h
26      int 21h
27      mov bh,al
28      sub bh,30h
29      mov ah,02h
30      mov dl,0dh
31      int 21h
32      mov dl,0ah
33      int 21h
34      mov dx,offset msg3
35      mov ah,09h
36      int 21h
37      sub bl,bh
38      add bl,30h
39      mov ah,02h
40      mov dl,bl
41      int 21h
42      mov ah,4ch
43      int 21h
44  main endp
45  end main

```





Using DEBUG

D:\TASMED~1\TASM>debug lect.exe

-l

-r

AX=0000 BX=0000 CX=0093 DX=0000 SP=0000 BP=0000 SI=0000 DI=0000

DS=141A ES=141A SS=142A CS=142A IP=0000 NV UP EI PL NZ NA PO NC

142A:0000 B82F14 MOV AX,142F

-g 0193

enter the first number: 8

Enter the second number: 5

difference is: 3

Program terminated normally