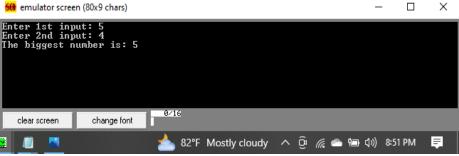
Suppose AX and BX contain signed numbers.write some code to put the biggest one in CX. org 100h .data input1 db 'Enter 1st input: \$' input2 db 'Enter 2nd input: \$' nwline db 10,13, '\$' output db 'The biggest number is: \$' .code main proc lea dx,input1 mov ah,09h int 21h mov ah,01h int 21h mov cx,ax;taking 1st input int 21h lea dx,nwline mov ah,09h int 21h ;load the another msg lea dx,input2 mov ah,09h int 21h mov ah,01 ;taking the another input mov bx,ax int 21h

lea dx,nwline mov ah,09h int 21h

cmp bx,cx

Problem 01:

jle next mov cx,bx next: lea dx,output mov ah,09h int 21h mov dx,cx mov ah,02h int 21h main endp end main ret



<u>Problem 02:</u> Replace the number in AX by its absolute value.

Program:

org 100h

.data

output db 'absolute value is: \$'

input dw -4

.code

main proc

mov ax,input

cmp ax,0

jge pos

neg ax

pos:

add ax,48

mov input,ax

lea dx,output

mov ah,09h

int 21h

mov ah,02h

;int 21h

mov dx,input

int 21h

main endp

end main



Problem 03:Suppose AL and BLint 21hcontain extended ASCIImov cl,alcharacters.Display the one thatint 21h

comes first in the character sequence

Program:cmp bl,clorg 100hjnge first.datamov bl,cl

m1 db 'Enter a character: \$' first:

m2 db ' comes first in the character lea dx,nwline sequence.\$' mov ah,09h

nwline db 10,13, '\$' int 21h

.code mov ah,02h

main proc

mov dl,bl
lea dx,m1 int 21h
mov ah,09h lea dx,m2
int 21h mov ah,09h
int 21h

mov ah,01h main endp

int 21h end main

mov bl,al int 21h

mov ah,02 lea dx,nwline mov ah,09h

int 21h

lea dx,m1 mov ah,09h int 21h

mov ah,01h



Problem 04: If AX contains a jmp end_case negative number ,put -1 in BX; if AX zero: contains 0,put 0 in BX; if AX contains lea dx,nwline a positive number, put 1 in BX. mov ah,09h **Program:** mov dl,"0" org 100h .data mov ah,02h m1 db 'Enter a value: \$' int 21h m2 db 'Output is: \$' jmp end_case nwline db 10,13, '\$' .code positive: main proc lea dx,nwline lea dx,m1 mov ah,09h mov ah,09h int 21h int 21h lea dx,m2 mov ah,01h mov ah,09h int 21h int 21h mov dl,"1" mov cx,ax cmp cx,"0" mov ah,02h jl negetive int 21h jmp end_case je zero jg positive end_case: negetive: main endp lea dx,nwline end main mov ah,09h ret

mov bl,"-"
mov bh,"1"

mov ah,02h

mov dx,bx mov ah,02h

int 21h

int 21h



Problem 05: If AL contains 1 or lea dx,nwline 3, display "o"; if AL contains 2 or 4 mov ah,09h display "e". int 21h lea dx,m2 **Program:** org 100h mov ah,09h .data int 21h m1 db 'Enter a value: \$' mov dl,"e" m2 db 'output is: \$' mov ah,02 int 21h nwline db 10,13, '\$' jmp display odd: .code lea dx,nwline mov ah,09h main proc int 21h lea dx,m1 lea dx,m2 mov ah,09h mov ah,09h int 21h int 21h mov dl,"o" mov ah,02 mov ah,1 mov bl,al int 21h int 21h jmp display cmp bl,2 display: je even main endp ;mov dl,"o" end main cmp bl,4 Output: je even 600 emulator screen (80x9 chars) Enter a value: 4 output is: e cmp bl,1 je odd cmp bl,3 je odd change font clear screen 📥 82°F \land 🧿 🦟 📤 垣 փ) 11:07 PM even:

<u>Problem 06:</u> Read a character, and if it's an uppercase letter, display it.

Program:

org 100h

.data

m1 db 'Enter a character: \$'

m2 db 'Output is: \$'

nwline db 10,13, '\$'

.code main proc

> lea dx,m1 mov ah,09h int 21h

mov ah,1

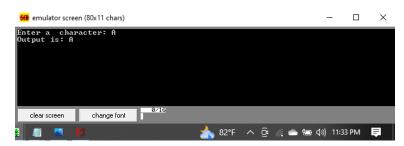
int 21h mov bl,al

cmp al,'Z' jle upper mov ah,4ch int 21h

upper:

lea dx,nwline mov ah,09h int 21h lea dx,m2 mov ah,09h int 21h mov ah,2 mov dl,bl int 21h

main endp end main



Problem 07: Read a character .If it's mov ah,09h "Y" or "y", display it; otherwise int 21h terminate the program. mov ah,4ch **Program:** org 100h int 21h .data m1 db 'Enter a character: \$' oyai: m2 db 'output is: \$' lea dx,nwline mov ah,09h m3 db 'terminated \$' int 21h lea dx,m2 nwline db 10,13, '\$' mov ah,09h int 21h .code mov ah,2 main proc ;int 21h mov dl,bl int 21h lea dx,m1 mov ah,09h main endp int 21h end main mov ah,1 **Output:** int 21h mov bl,al cmp bl,'Y' je oyai cmp bl,'y' je oyai lea dx,nwline

mov ah,09h

int 21h

lea dx,m2



杰 82°F \land 🣴 🦟 👝 🔄 ላክ) 11:53 PM 🏻 📮

<u>Problem 08:</u> Write a count-controlled loop to display a row of 80 stars.

Program:

org 100h

.data

m1 db 'Enter a character: \$'

m2 db ' comes first in the character sequence.\$'

nwline db 10,13, '\$'

.code

main proc

mov cx,80

mov ah,2

mov dl,'*'

top:

int 21h

loop top

main endp

end main



exit:

Program 09: Write some code to count the number of chara ters In; n input line.

lea dx,nwline

mov ah,09h

int 21h

Program:

\$"

org 100h lea dx,ms2 .data mov ah,09h ms db "To exit input a blank int 21h

space.",10,13,"Input any character: mov ah,2

.code ;int 21h

count dw '0' mov dx,count nwline db 10,13, '\$' int 21h

ms2 db 'length is: \$'

main endp main proc end main lea dx,ms ret

int 21h

while: mov ah,01h int 21h

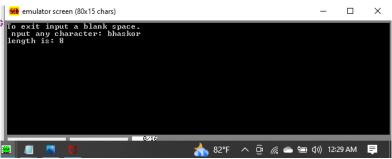
mov ah,09h

cmp al," "

je exit

add count,1

jmp while



Problem 10: Write some code to read characters until a blank is read.

Program:

```
org 100h
.data
ms db "To exit input a blank
space.",10,13,"Input any character:
$"
.code
main proc
  lea dx,ms
  mov ah,09h
  int 21h
  while:
  mov ah,01h
  int 21h
  cmp al," "
 je exit
 jmp while
  exit:
  main endp
end main
ret
```

