

```

01 ;Nayan Chandra,CSE-21,DUET
02 INCLUDE 'emu8086.inc'
03 .MODEL SMALL
04 .STACK 100h
05 .DATA
06
07 MSG DB 'WE aRE DUET STuDeNTs',0Dh,0Ah,'$'
08 F DB ?
09 L DB ?
10
11
12 .CODE
13 MAIN PROC
14     MOV AX,@DATA
15     MOV DS,AX
16
17     MOV CX,20
18     XOR SI,SI
19
20
21 TOP1:
22     MOV AL,MSG[SI]
23     CMP AL,' '
24     JE SKIP1
25     CMP AL,'a'
26     JGE FIND_LOWER1
27
28
29
30 SKIP1:
31     INC SI
32
33
34     LOOP TOP1
35     JMP EXIT
36
37 FIND_LOWER1:
38     MOV F,AL
39     MOV AH,2
40     MOV DL,F
41     INT 21H
42     MOV DL,0Ah
43     INT 21H
44     MOV DL,0Dh
45     INT 21H
46

```



emula

a  
s

clear sc

```

01 ;Nayan Chandra,CSE-21,DUET
02 INCLUDE 'emu8086.inc'
03 .MODEL SMALL
04 .STACK 100h
05 .DATA
06
07 NUM DW 1,4,9,16,25,36,49,64,81
08 N DB ?
09 RESULT DW ?
10
11
12 .CODE
13 MAIN PROC
14     MOV AX, @DATA
15     MOV DS, AX
16     XOR CX, CX
17
18     MOV AH, 1
19     INT 21h
20     SUB AL, '0'
21     MOV CL, AL
22     XOR SI, SI
23     XOR BX, BX
24
25 TOP:
26     ADD BX, NUM[SI]
27     ADD SI, 2
28
29     LOOP TOP
30
31     MOV RESULT, BX
32
33
34
35
36     MAIN ENDP
37 END MAIN
38
39 ret
40
41
42
43

```

SCR emulator screen (80

2

### extended value viewer

watch:

BX

☐ word

☒ byte

L

hex:

05

bin:

00000101

oct:

005

decimal 8 bit

unsigned:

5

signed:

5

ascii:

5

```

01 ;Nayan Chandra,CSE-21,DUET
02 INCLUDE 'emu8086.inc'
03 .MODEL SMALL
04 .STACK 100h
05 .DATA
06
07 ARR DB 2,6,1,9,4
08
09
10 .CODE
11 MAIN PROC
12     MOV AX,@DATA
13     MOV DS,AX
14     XOR SI,SI
15     MOV DI,1
16 SWAP:
17     MOV BL,ARR[SI]
18     MOV DL,ARR[DI]
19     MOV ARR[SI],DL
20     MOV ARR[DI],BL
21     JMP NEXT
22
23 LOOP1:
24     CMP SI,4
25     JE EXIT
26     MOV DI,SI
27     INC DI
28 LOOP2:
29     CMP DI,5
30     JE EXIT
31     MOV AL,ARR[SI]
32     CMP AL,ARR[DI]
33     JG SWAP
34 NEXT:
35     INC DI
36     CMP DI,5
37     JL LOOP2
38     INC SI
39     CMP SI,4
40     JL LOOP1
41 EXIT:
42     MOV AH,2
43     XOR SI,SI
44 PRINT:
45     MOV DL,ARR[SI]
46     ADD DL,'0'
47     INT 21h
48     INC SI
49     CMP SI,5
50     JE FINISH
51     JMP PRINT

```

SCN emulator screen (80x2 char)

12469

clear screen

change