PRACTICAL: 4(A4)

AIM: Write an assembly language program to count the numbers in an array (negative & positive).

PROGRAM:

```
org 100h
mov [4000h], 01
mov [4001h], 02
mov [4002h], 03
mov [4003h], -04
mov [4004h], 05
mov [4005h], 06
mov [4006h], 07
mov [4007h], -08
mov [4008h], 09
mov [4009h], -10

mov si, 4000h
sft:
mov al, [si]
shl al, 1
jnc positive
inc bl
jmp return
positive:
inc dl
return:
```

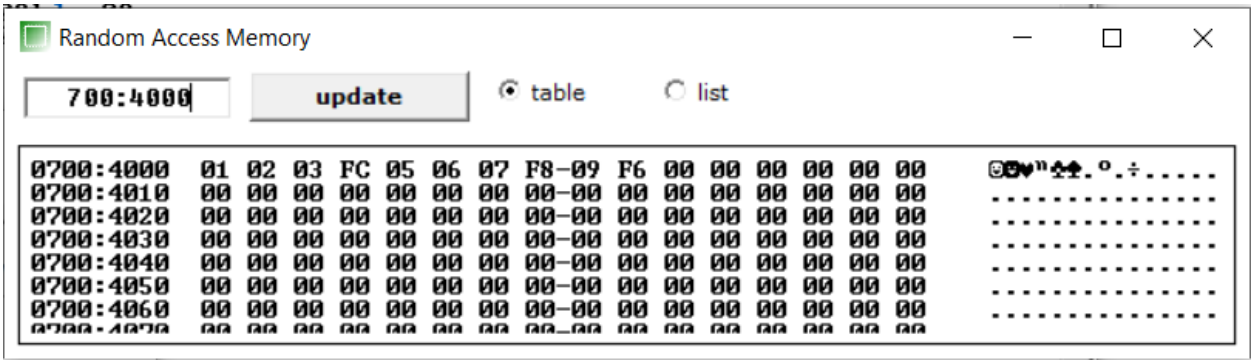
```
inc si

cmp si, 400ah

jne sft


ret
```

OUTPUT:



CONCLUSION:

In this I have learned that how to count number in array.

PRACTICAL: 4(B5)

AIM: Write an assembly language program to multiply two 16-bit numbers in memory and store the result in memory.

PROGRAM:

```
org 100h
mov [4000h], 3000h
mov [4002h], 2000h
mov ax, [4000h]
mov bx, [4002h]
mul bx
mov [4004h], dx
mov [4006h], ax
ret
```

OUTPUT:

CONCLUSION:

In this I have learned that how to multiply two 16-bit number.