// ASM PROGRAM TO FIND THE NUMBER OF POSITIVE AND NEGATIVE NUMBER USING PROCEDURES

section .data

array db 1, 2, 3, -4, -5, 6, 7, -8 ,9 ,10

posMsg db 'Positive Numbers Count : '

lenPosMsg equ $ - posMsg

negMsg db 'Negative Numbers Count : '

lenNegMsg equ $ - negMsg

newline db '', 13, 10

lennewline equ $-newline

section .bss

posNo resb 1

negNo resb 1

section .text

global \_start

\_start:

mov cl, 0

mov dl, 10

mov esi, array

call next

mov al, 10

sub al, cl

add al, '0'

mov [posNo], al

add cl, '0'

mov [negNo], cl

;Displaying Message 'Negative Numbers Count : '

mov eax, 4

mov ebx, 1

mov ecx, negMsg

mov edx, lenNegMsg

int 80h

;Displaying the count of negative numbers

mov eax, 4

mov ebx, 1

mov ecx, negNo

mov edx, 1

int 80h

;Displaying a new line

mov eax, 4

mov ebx, 1

mov ecx, newline

mov edx, lennewline

int 80h

;Displaying Message 'Positive Numbers Count : '

mov eax, 4

mov ebx, 1

mov ecx, posMsg

mov edx, lenPosMsg

int 80h

;Displaying the count of positive numbers

mov eax, 4

mov ebx, 1

mov ecx, posNo

mov edx, 1

int 80h

mov eax, 1

int 80h

next :

mov al, [esi]

inc esi

dec dl

rcl al, 1

jc negative ;If the MSB is 1; then number is negative

jnz next ;Jump next if value of dl is not zero

ret

negative :

inc cl

jnz next ;Jump next if value of dl is not zero

ret

OUTPUT:

