

```

print macro arg
    lea dx,arg
    mov ah,09h
    int 21h
endm

data segment
    str1 db 0ah,0dh,"Enter the string:$"
    str2 db 30 dup(?)
    char db 'a','e','i','o','u','$'
    str4 db 0ah,0dh,"Number of vowels=$"
    str5 db 0ah,0dh,"Number of consonants=$"
    len dw ?
    no dw ?
data ends

```

```

assume cs:code,ds:data

```

```

code segment

```

```

start:  mov ax,data

```

```

        mov ds,ax

```

```

        print str1

```

```

        lea si,str2

```

```

        mov cx,00

```

```

        mov dx,00

```

```

a1:     mov ah,01h

```

```

        int 21h

```

```

        cmp al,13

```

```

        jz a2

```

```

        mov [si],al

```

```

        inc si

```

```

        inc cx

```

```

        mov len,cx

```

```

        jmp a1

```

```

a2:     lea si,str2

```

```

a3:     lea di,char

```

```

        mov al,[si]

```

```

l1:     mov bl,[di]

```

```

        mov bh,00h

```

```

        mov ah,00h

```

```

        cmp ax,bx

```

```

        jz true

```

```

        inc di

```

```

        mov bl,'$'

```

```

        cmp [di],bl

```

```

        jnz l1

```

```

        mov bl,' '

```

```

        cmp [si],bl

```

```

        jz m

```

```

m1:     inc si

```

```

        loop a3

```

```

        mov no,dx

```

```

        print str4

```

```

        mov cx,00h

```

```

        mov ax,no

```

```

        mov bx,0ah

```

```

k1:     mov dx,0000h

```

```

        div bx

```

```

        push dx

```

```

        inc cx
        cmp ax,0000h
        jnz k1
    k2: pop dx
        add dx,30h
        mov ah,02h
        int 21h
        loop k2
print str5
mov ax,len
mov bx,no
sub ax,bx
mov no,ax
        mov cx,00h
        mov ax,no
        mov bx,0ah
    k3: mov dx,0000h
        div bx
        push dx
        inc cx
        cmp ax,0000h
        jnz k1
    k4: pop dx
        add dx,30h
        mov ah,02h
        int 21h
        loop k2
jmp exit
m:      mov bx,len
        dec bx
        mov len,bx
        jmp m1
true:   inc dl
        inc si
        jmp a3
exit:   mov ah,4ch
        int 21h

code ends
end start

```

Output

Enter the string:hello world

Number of vowels=3

Number of consonants =7