**Question 1**

**Code:**

org 0x0100

jmp start

goToNewLine:

mov dx, newLine

mov ah, 9 ; DOS print-string function

int 0x21

ret

printnum:

mov dl,num

mov ah,09h

int 21h

mov dl,msg2

mov ah,09h

int 21h

mov ah ,01h

int 21h

mov [num3],al

mov dl,num3

mov ah,09h

int 21h

mov dl,msg3

mov ah,09h

int 21h

mov ah ,01h

int 21h

mov [num3],al

mov dl,num3

mov ah,09h

int 21h

mov ah ,01h

int 21h

mov [num3],al

mov dl,num3

mov ah,09h

int 21h

add dl,03h

mov ah,09

int 21h

call goToNewLine

ret

section.code

start:

xor cx,cx

mov dx,msg

mov ah,09

int 21h

mov ah ,01

int 21h

mov [num],al

call goToNewLine

mov dx,msg1

mov ah,09

int 21h

mov ah ,01

int 21h

mov [num1],al

call goToNewLine

call printnum

mov ax,4ch

int 21h

section.data

num2: dw 0

num : dw 0,'$'

num1 : dw 0 ,'$'

msg db"Enter the number :$"

msg1 db"Enter the Limit (0-9) :$"

newLine db 0x0a, '$'

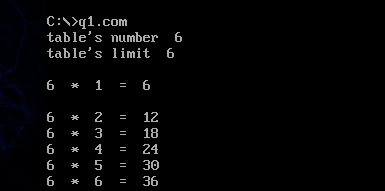
msg2 db " \* $"

msg3 db " = $"

num3 : db 0,'$'

num4 : dw 0 ,'$'

**Output:**



**Question 2**

**Code:**

org 100h

jmp start

odd:

mov ah,9

mov dx,od

int 21h

jmp sortng

start:

mov ah,9

mov dx,msg;

int 21h

mov ah,1

int 21h

mov [chk],al

mov dl, 10

mov ah, 02h

int 21h

mov dl, 13

mov ah, 02h

int 21h

mov dx,0

mov ax,[chk]

mov cx ,2

div cx

cmp dx ,0

jne odd

mov ah,9

mov dx,evn

int 21h

mov ax ,0

mov bx ,0

mov cx ,0

mov dx ,0

sortng:

mov dl, 10

mov ah, 02h

int 21h

mov dl, 13

mov ah, 02h

int 21h

mov ah,9

mov dx,entarrmbr;

int 21h

mov dl, 10

mov ah, 02h

int 21h

mov dl, 13

mov ah, 02h

int 21h

mov bx,0

l1:

mov ah,1

int 21h

mov [arr + bx],al

add bx ,2

cmp bx, 20

jne l1

mov bx , 0

mov cx , 10

loop1:

mov bx , 0

loop2:

mov ax , [arr +bx ]

cmp ax , [arr + bx+2]

jbe loop3

mov dx , [arr + bx+2]

mov [arr + bx+2] , ax

mov [arr + bx] , dx

loop3:

add bx , 2

cmp bx , 20

jne loop2

sub cx , 1

jnz loop1

mov ax ,0

mov bx ,0

mov cx ,0

mov dx ,0

mov si , 0

MOV dl, 10

MOV ah, 02h

INT 21h

MOV dl, 13

MOV ah, 02h

INT 21h

mov ah,9

mov dx,sort

int 21h

MOV dl, 10

MOV ah, 02h

INT 21h

MOV dl, 13

MOV ah, 02h

INT 21h

mov bx ,0

parrt:

mov ah, 02h

mov dl , [arr + bx ]

int 21h

add bx,2

cmp bx, 20

jne parrt

mov ax ,0x4c00

int 21h

chk : dw 0

arr: dw 0,0,0,0,0,0,0,0,0,0

msg db "enter 1 nmbr $"

evn db " even nmbr $"

od db " odd nmbr $"

entarrmbr db "enter 10 nmbrz $"

sort db "sorted aray : $"

**Output:**

