Write 80387 ALP to plot Sine Wave, Cosine Wave and Sinc function. Access video memory directly for plotting.

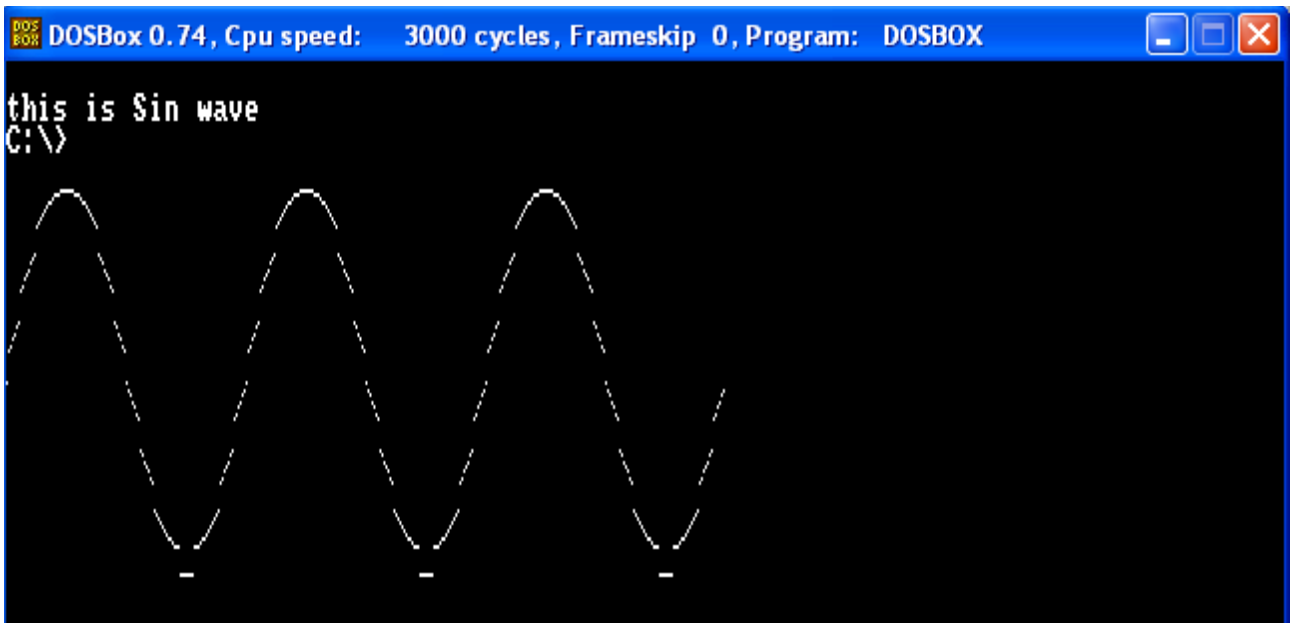
```
;Sin wave
.model small

.stack 100

.data
msg db 10,13,'this is Sin wave$'
x dd 0.0
xad dd 3.0
one80 dd 180.0
sixty dd 30.0
hundred dd 50.0
row db 00
col db 00
xcursor dd 00
ycursor dt 00
count dw 360
x1 dw 0


.code
.386

main: mov ax,@data
mov ds,ax

mov ah,00              ;set video mode
mov al,6
int 10h

up1:finit

fldpi
fdiv one80
fmul x
fsin
fmul sixty
fld hundred
fsub st,st(1)   ;=100-60 sin((pi/180))*x


fbstp ycursor
lea esi,ycursor

mov ah,0ch             ;write graphics pixel
mov al,01h
mov bh,0h
mov cx,x1
mov dx,[si]
```

```
int 10h

inc x1
fld x
fadd xad
fst x
dec count
jnz up1


mov ah,09h                  ; display message
lea dx,msg
int 21h


mov ah,4ch
int 21h
end main
```

;Run Commands:

1. MOUNT c c:\Tasm
2. c:
3. tasm sin.asm
4. tlink sin
5. sin

OUTPUT:



```
;cosin
.model small

.stack 100

.data
msg db 10,13,'this is Sin wave$'
x dd 0.0
xad dd 3.0
one80 dd 180.0
sixty dd 30.0
hundred dd 50.0
row db 00
col db 00
xcursor dd 00
ycursor dt 00
count dw 360
x1 dw 0


.code
.386

main: mov ax,@data
mov ds,ax

mov ah,00              ;set video mode
mov al,6
int 10h

up1:finit

fldpi
fdiv one80
fmul x
fcos
fmul sixty
fld hundred
fsub st,st(1)   ;=100-60 sin((pi/180))*x


fbstp ycursor
lea esi,ycursor

mov ah,0ch             ;write graphics pixel
mov al,01h
mov bh,0h
mov cx,x1
mov dx,[si]
int 10h
```

```
inc x1
fld x
fadd xad
fst x
dec count
jnz up1


mov ah,09h                  ; display message
lea dx,msg
int 21h


mov ah,4ch
int 21h
end main
```

;Run Commands:

1. MOUNT c c:\Tasm
2. c:
3. tasm cos.asm
4. tlink cos
5. cos

OUPUT: