

Code:

Data Segment

```
title db 0dh,0ah,"NIYATI EXP3 $"
```

```
msg db 0dh,0ah,"-- -- -- -- OF DF IF TF SF ZF -- AF -- PF -- CF $"
```

```
newl db 0dh,0ah,"$"
```

```
flag dw ?
```

Data ends

Code Segment

```
ASSUME CS:Code,DS:Data
```

```
start:
```

```
mov ax,Data
```

```
mov DS,ax
```

```
mov dx,offset title
```

```
mov ah,09h
```

```
int 21h
```

```
mov dx,offset msg
```

```
mov ah,09h
```

```
int 21h
```

```
mov dx,offset newl
```

```
mov ah,09h
```

```
int 21h
```

```
cli
```

```
stc
```

```
std
```

```
pushf
pop bx
mov flag,bx
mov cx,16
mov bx,8000h
```

```
loops:
mov ax,flag
and ax,bx
jz zero
mov dl,31h
mov ah,02h
int 21h
jmp space
```

```
zero:
mov dl,30h
mov ah,02h
int 21h
```

```
space:
mov dl,' '
mov ah,02h
int 21h
```

```
mov ah,02h
int 21h
ror bx,1
```

```
loop loops
```

mov ah,4ch

int 21h

Code ends

end start

Output:

```
C:\TASM>edit

C:\TASM>TASM exp3.asm
Turbo Assembler Version 3.0 Copyright (c) 1988, 1991 Borland International

Assembling file:   exp3.asm
Error messages:   None
Warning messages: None
Passes:          1
Remaining memory: 475k

C:\TASM>tLINK exp3.obj
Turbo Link Version 2.0 Copyright (c) 1987, 1988 Borland International
Warning: no stack

C:\TASM>EXP3.exe

NIYATI EXP3
-- -- -- -- OF DF IF TF SF ZF -- AF -- PF -- CF
0 1 1 1 0 1 0 0 0 0 0 0 0 0 0 1 1
C:\TASM>
```

