

# To calculate NCR using recursion

.model small

display macro msg

lea dx, msg

mov ah, 09h

int 21h

endm

.data

msg1 db 0dh, 0ah, "Enter the value of n:"

msg2 db 0dh, 0ah, "Enter the value of r:"

msg3 db 0dh, 0ah, "calculated Successfully"

msg4 db 0dh, 0ah, "calculation Failed:"

ncr dw 0

.code

mov ax, @data

mov ds, ax

xor ax, ax

xor bx, bx

display msg1

xor ax, ~~ax~~ ax

call read

push ax

display msg2

xor ax, ax

call read

mov bx, ax

pop ax

call calc

xor cx, cx

mov cx, ncr

mov ah, 4ch

int 21h

calc proc near

cmp ax, bx



Date

```
je r1, 1
comp bx, 1
je r1, 1
cmp bx, 1
je r3
dec ax
cmp bx, ax
je r2
push ax
push bx
call calc
pop bx
pop ax
dec bx
push ax
push bx
call calc
pop bx
pop ax
dec bx
push ax
push bx
call calc
pop bx
pop ax
ret
r1: inc ncr
ret
r2: inc ncr
r3: add ncr, ax
ret
read proc near
mov ah, 01h
int 21h
xor ah, ah
sub ax, 30h; ret; end;
```



Assembly language program to  
create and delete file

• model small

Disb macros msg

Lea DX, msg

MOV AH, 00h

INT 21h

END M

• data

MSG1 DB, 0DH, 0AH, "Enter  
file name  
for create  
: \$"

MSG2 DB, 0DH, 0AH, "creation  
failed"

MSG3 DB, 0DH, 0AH, "Enter  
file name  
for deletion"

MSG4 DB, 0DH, 0AH, "file deletion  
failed"

MSG5 DB 0DH, 0AH, "Deletion  
failed"



```

FNAME1    DB    10 DUP(0)
FNAME2    DB    10 DUP(0)

```

Code

```

MOV AX, @data
MOV DS, AX
Disp msg1
MOV SI, 00
Back1:    MOV AH, 01h
          INT 21h
          cmp al, 0dh
          JE Next1
          MOV FNAME1[SI], AL
          INC SI
          Jmp Back1

```

```

Next1:    MOV FNAME1[SI], '$'
          Lea DI, fname1
          MOV CX, 00
          MOV ah, 5ch } for creatin
          INT 21h      } file
          JC cfail
          Disp msg2
          Jmp del

```

```

cfail:    Disp msg3
Del:      Disp msg4
          MOV SI, 00
Back2:    MOV AH, 01h
          INT 21h

```



Date \_\_\_\_/\_\_\_\_/\_\_\_\_

```
cmp al, 0DH
JE Nent2
MOV FName[ESI], AL
INCS I
Jmp Back2
```

```
Nent2: MOV FName[ESI], '\0'
      Lea DX, name2
      MOV Ah, 41h } for deletion
      INT 21h } file
      JC DFail
      Disp msg5
      Jmp last
```

```
Dfail: Disp msg6
```

```
Last: MOV ah, 4Ch
      int 21h
      end
```