

Q.) nCr

model small

data

N dw 4

R dw 2

NCR dw 0

code

mov ax, @data

mov ds, ax

mov ax, n

mov bx, r

call ncrpro

call disp

jmp final

ncrpro proc near

cmp ax, bx ; R=N

je res1

cmp bx, 0 ; R=0

je res1

cmp bx, 1 ; R=1

je resn

dec ax ; R=N-1

cmp bx, ax

je incr

push ax

push bx

call ncrpro

pop bx

pop ax

dec bx

```
push ax
push bx
call ncrpro
pop bx
pop ax
set
```

```
res1: inc ncr
      set
```

```
incr: inc ncr
```

```
resn: add ncr, ax ; 1+2 3+3=6
      set
```

```
ncrpro endp
```

```
disp proc near
```

```
mov bx, ncr
```

```
add bx, 3030h
```

```
mov dl, Bh
```

```
mov ah, 02h
```

```
int 21h
```

```
mov dl, bl
```

```
mov ah, 02h
```

```
int 21h
```

```
set
```

```
disp endp
```

```
final: mov ah, 4ch
        int 21h
```

```
end
```

```
.MODEL SMALL
.DATA
N DW 4
R DW 2
NCR DW 0
```

```
.CODE
MOV AX,@DATA
MOV DS,AX
```

```
MOV AX,N
MOV BX,R
CALL NCRPRO
CALL DISP
JMP FINAL
```

```
NCRPRO PROC NEAR
    CMP AX,BX    ;R=N
    JE RES1
    CMP BX,0     ;R=0
    JE RES1
    CMP BX,1     ;R=1
```

Commands for manipulating files

JE RESN

DEC AX ;R=N-1

CMP BX,AX

JE INCR

PUSH AX

PUSH BX

CALL NCRPRO

POP BX

POP AX

DEC BX

PUSH AX

PUSH BX

CALL NCRPRO

POP BX

POP AX

RET

RES1: INC NCR

RET

INCR: INC NCR

RESN: ADD NCR,AX ;1+2 3+3=6

RET

F1=Help

Line:44

Col:28

```
INCR: INC NCR
RESN: ADD NCR,AX      ;1+2  3+3=6
      RET
NCRPRO ENDP
```

```
DISP PROC NEAR
```

```
    MOV BX,NCR
    ADD BX,3030H
    MOV DL,BH
    MOV AH,02H
    INT 21H
    MOV DL,BL
    MOV AH,02H
    INT 21H
    RET
DISP ENDP
```

```
FINAL: MOV AH,4CH
INT 21H
END
```

```
C:\N\ASM>net  
06  
C:\N\ASM>
```