^nC_r using recursion:

```
.MODEL SMALL
~~.stack~~
.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               ;    3c2 + 3c1
        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
```

```asm
push  ax
push  bx
call  ncrpro
pop   bx
pop   ax
ret


res 1 : inc ncr
ret


incr: inc ncr
gran: 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
```

```
51758 + 464786 Bytes symbol space free

        0 Warning Errors
        0 Severe  Errors

C:\MP_LAB\MASM>link ncr;;

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LINK : warning L4021: no stack segment

C:\MP_LAB\MASM>ncr
06
C:\MP_LAB\MASM>
```