

```
.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 ; 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
```

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Ln 1, Col 1

100%

Windows (CRLF)

UTF-8



Search

10:22
03-12-2020

```
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
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
```



Search

10:23
03-12-2020

```
call ncrpro
pop bx
pop ax
ret

res1:inc ncr
ret

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
```



nCr using recursion:

.MODEL SMALL

~~data~~

.data

n dw 4

r dw 2

ncr dw 0

.code

mov ax, @data

mov ds, ax

mov ax, n

mov bx, r

call ncrproc

call disp

jmp final

ncrproc proc near

cmp ax, bx ; r=n

je res1

cmp bx, 0 ; r=0

je res01

cmp bx, 1 ; r=1

je resn

dec ax ; r=n-1

cmp bx, ax

je incn

push ax

push bx

call ncrproc

pop bx

pop ax

dec bx

hush ax

hush bx

call near ptr

pop bx

pop ax

ret

res1: inc ncr

ret

incr: inc ncr

scr: add ncr, ax ; $1+2+3+3=6$

ret

ncr ptr endp

disb 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

disb 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;;

Microsoft (R) Overlay Linker Version 3.60

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LINK : warning L4021: no stack segment

C:\MP_LAB\MASM>ncr

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C:\MP_LAB\MASM>