

LAB PROG 10(B)

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nCr Program

• MODEL SMALL

• DATA

N DB 05H

R DB 00H

NCRVAL DW 01H DUP(?)

• CODE

START : MOV AX, @ DATA

MOV DS, AX

MOV CL, R ; CL = 02H

MOV CH, N ; CH = 05H

XOR AX, AX ; clears register

CALL NCR

MOV [NCRVAL], AX

MOV AH, 4CH

INT21H

NCR PROC NEAR

CMP CH, CL

JE EQUAL ; N == R ? Set 1

JC FINISH ; NCR ? Set zero

CMP CL, 01H ; R == 1 ? Set N

JE NEXT

CMP CL, 00H ; R == 0 ? Set 1

JE EQUAL

DEC CH

PUSH CX

CALL NCR

POP CX

DEC CL

CALL NCR

RET

NEXT : XOR BX, BX ; Clear BX reg
MOV BL, CH ; BL = 05 (i.e N value)
ADD AX, BX ; $00 + 05 = 05$ = N value

RET

EQUAL : ADD AX, 01H ; AX = 01H.

FINISH : RET

NCR ENDP

END START