

COMPUTE NCR

.MODEL SMALL

.DATA

N DB 05H

R DB 00H

NCRVAL DB 01H DUP (?)

.CODE

START:

MOV AX, @DATA

MOV DS, AX

MOV CL, R ; CL = 00H → VALUE OF R

MOV CH, N ; CH = 05H → VALUE OF N

XOR AX, AX

CALL NCR

MOV [NCRVAL], AX

MOV AH, 4CH

INT 21H

NCR PROC NEAR

CMP CH, CL

JE EQUAL ; CH == R ? SET 1

JC FINISH ; N < R ? SET 0

CMP CL, 01H

JE NEXT ; R == 1 ? SET N

CMP CL, 00H

JE EQUAL ; R == 0 ? SET 1

DEC CH

PUSH CX

CALL NCR

POP CX

DEC CL

CALL NCR

POP CX

DEC CL

CALL NCR

RET

NEXT:

XOR BX, BX

MOV BL, 05H

; BL = 05H → VALUE OF N

ADD AX, BX

; 00 + 05 = 05, STORED AS RESULT (VALUE OF AX)

RET

EQUAL:

ADD AX, 01H

; AX = 01H

FINISH:

RET

NCR ENDP

END START