STRING COMPARE

```
.MODEL SMALL

DISPLAY MACRO MSG

        LEA DX, MSG

        MOV AH, 09H

        INT 21H

ENDM

.DATA

MSG1 DB 0DH, 0AH, "ENTER FIRST STRING    : $"

MSG2 DB 0DH, 0AH, "ENTER SECOND STRING    : $"

MSG3 DB 0DH, 0AH, "LENGTH OF FIRST STRING: $"

MSG4 DB 0DH, 0AH, "LENGTH OF SECOND STRING: $"

MSG5 DB 0DH, 0AH, "---STRINGS ARE EQUAL---$"

MSG6 DB 0DH, 0AH, "---STRINGS ARE NOT EQUAL---$"

STRING1 DB 80H DUP(?)

STRING2 DB 80H DUP(?)

.CODE

START: MOV AX, @DATA

        MOV DS, AX

        DISPLAY MSG1

        MOV SI, OFFSET STRING1

        CALL READSTR

        MOV BL, CL          ; STORE THE LENGTH OF FIRST STRING

        DISPLAY MSG2

        MOV SI, OFFSET STRING2

        CALL READSTR

        PUSH BX

        PUSH CX
```

```asm
        DISPLAY MSG3

        MOV AL, BL

        CALL LEN_DIS

        DISPLAY MSG4

        MOV AL, CL

        CALL LEN_DIS

        POP CX

        POP BX

        CMP CL, BL        ; COMPARE THE LENGTHS

        JNE FAIL          ; IF LENGTHS ARE EQUAL, PROCESS NEXT STATMENT

        MOV SI, OFFSET STRING1

        MOV DI, OFFSET STRING2

        CLD

CHK:    MOV AL, [SI]      ; COMPARE BOTH THE STRING

        CMP AL, [DI]

        JNE FAIL

        INC SI

        INC DI

        DEC CL

        JNZ CHK

        DISPLAY MSG5

        JMP FINAL


LEN_DIS PROC NEAR

        XOR AH, AH

        ADD AL, 00H

        AAM

        ADD AX, 3030H

        MOV BH, AL

        MOV DL, AH

        MOV AH, 02H
```

```asm
        INT 21H

        MOV DL, BH

        MOV AH, 02H

        INT 21H

RET

LEN_DIS ENDP

READSTR PROC NEAR

        XOR CL, CL

BACK:   MOV AH, 01H

        INT 21H

        CMP AL, 0DH

        JE FINISH

        MOV [SI], AL

        INC SI

        INC CL

        JMP BACK

FINISH: MOV [SI], BYTE PTR '$'

        RET

READSTR ENDP

FAIL:   DISPLAY MSG6

FINAL:  MOV AH, 4CH

        INT 21H

END START
```
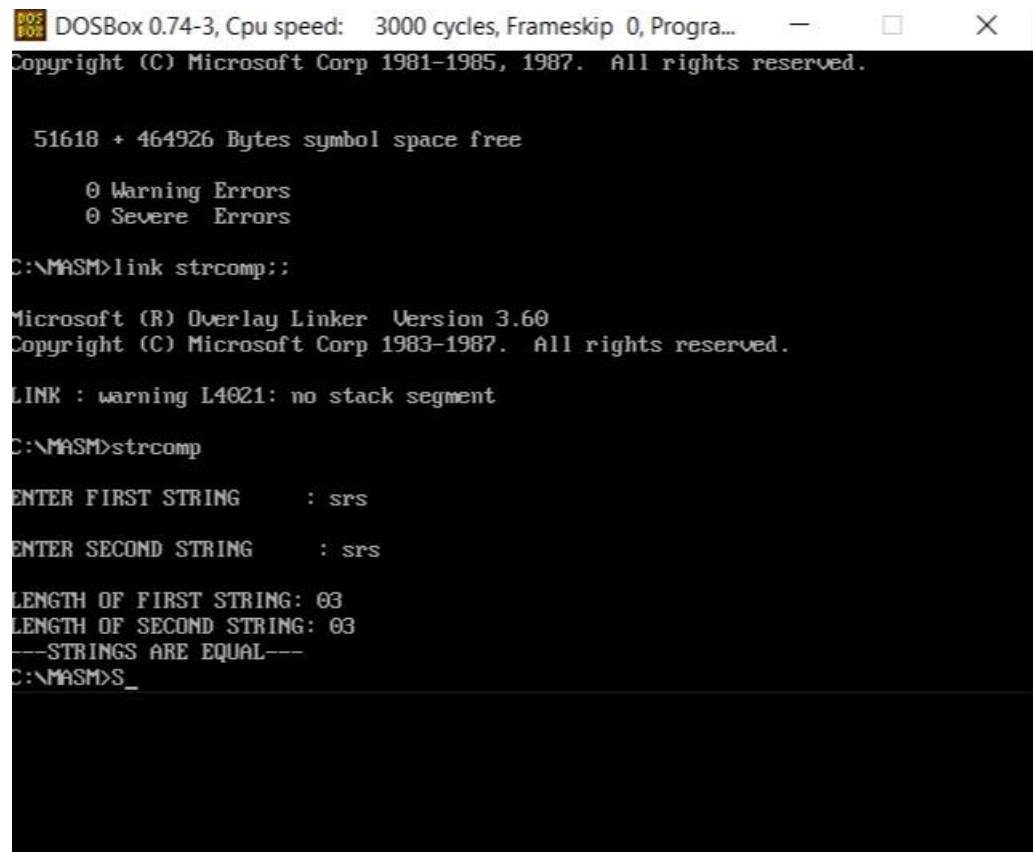
OUTPUT:


```
DOSBox 0.74-3, Cpu speed:   3000 cycles, Frameskip 0, Progra...    —    □    ✕

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  51618 + 464926 Bytes symbol space free

      0 Warning Errors
      0 Severe  Errors

C:\MASM>link strcomp;;

Microsoft (R) Overlay Linker  Version 3.60
Copyright (C) Microsoft Corp 1983-1987.  All rights reserved.

LINK : warning L4021: no stack segment

C:\MASM>strcomp

ENTER FIRST STRING      : srs

ENTER SECOND STRING     : srs

LENGTH OF FIRST STRING: 03
LENGTH OF SECOND STRING: 03
---STRINGS ARE EQUAL---
C:\MASM>S_
```