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IBM19CS167

PROGRAM 1

```
. MODEL   SMALL
DISPLAY   MACRO MSG
          LEA DX, MSG
          MOV AH , 09H
          INT 21H
ENDM


. DATA
LIST DB 01H, 05H, 07H, 10H, 12H , 14H
NUMBER EQU ($ - LIST)
KEY DB 10H
MSG1 DB 0DH , 0AH , "ELEMENT FOUND IN THE LIST... $"
MSG2 DB 0DH , 0AH , "SEARCH FAILED!! ELEMENT NOT FOUND IN THE LIST$"


. CODE
START : MOV AX , @DATA
        MOV DS, AX
        MOV CH, NUMBER-1
        MOV CL, 00H
AGAIN : MOV SI, OFFSET LIST
        XOR AX, AX
        CMP CL, CH
        JE NEXT
        JNC FAILED
NEXT:   MOV AL, CL
        ADD AL, CH
        SHR AL , 01H
        MOV BL, AL
        XOR AH, AH
```

```
        MOV  BP, AX
        MOV  AL, DS: [BP][SI]
        CMP  AL, KEY
        JE   SUCCESS
        JC   INCLOW
        MOV  CH, BL
        DE   CH
        JMP  AGAIN
INCLOW:  MOV  CL, BL
         INC  CL
         JMP  AGAIN
SUCCESS:  DISPLAY MSG1
          JMP  FINAL
FAILED.   DISPLAY MSG2
FINAL:    MOV AH, 4CH
          INT  21H
END    START
```