.MODEL SMALL

.DATA

A DB 10H, 20H, 30H, 40H, 50H

N DB N-A

KEY DB 20H

MSG1 DB "KEY NOT FOUND $", 0AH, 0DH

MSG2 DB "KEY FOUND AT POS"

POS DB ?, "$"

PRINTF MACRO MSG

LEA DX, MSG

MOV AH, 09H

INT 21H

ENDM

.CODE

MOV AX,@DATA

MOV DS, AX

MOV ES, AX

MOV AL, 0

MOV DL, N

DEC DL

AGAIN:

CMP AL, DL

JA FAILED

MOV CL, AL

ADD AL, DL

SHR AL, 1

MOV AH, 00H

MOV SI, AX

MOV BL, A[SI]

CMP BL, KEY

JAE LOC1

INC AL

JMP AGAIN

LOC1:

JE SUCCESS

DEC AL

MOV DL, AL

MOV AL, CL

JMP AGAIN

FAILED: PRINTF MSG1

JMP DISPLAY

SUCCESS:

INC AL

ADD AL, 30H

MOV POS, AL

PRINTF MSG2

DISPLAY:

MOV AH, 4CH

INT 21H

END