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

.DATA
N DB 6
A DB 05,07,09,03,01,08
MSG1 DB 0DH,0AH,"1-SORT IN ASCENDING ORDER...$"
MSG2 DB 0DH,0AH,"2-SORT IN DESCENDING ORDER...$"
MSG3 DB 0DH,0AH,"3-EXIT$"
MSG4 DB 0DH,0AH,"ENTER YOUR CHOICE$"
MSG5 DB 0DH,0AH,"INVALID CHOICE$"

.CODE
  MOV AX,@DATA
  MOV DS,AX
  LEA SI,A
  MOV CL,N
  DEC CL

DISPLAY MSG1
DISPLAY MSG2
DISPLAY MSG3
DISPLAY MSG4

  MOV AH,01H
  INT 21H
  SUB AL,30H
```

```asm
        CMP AL,01H

        JE ASCSORT

        CMP AL,02H

        JE DESCSORT

        CMP AL,03H

        JE FINAL

        DISPLAY MSG5

        JMP FINAL


ASCSORT:MOV CH,CL

        MOV SI,00H

INLOOPA:MOV AL,A[SI]

        INC SI

        CMP AL,A[SI]

        JC NOA

        XCHG AL,A[SI]

        MOV A[SI-1], AL

        NOA: DEC CH

        JNZ INLOOPA

        DEC CL

        JNZ ASCSORT

        JMP FINAL


DESCSORT:MOV CH,CL

        MOV SI,00H

INLOOPD:MOV AL,A[SI]

        INC SI

        CMP AL,A[SI]

        JC NOD

        XCHG AL,A[SI]

        MOV A[SI-1], AL
```

```
NOD:DEC CH

JNZ INLOOPD

DEC CL

JNZ DESCSORT

JMP FINAL


FINAL:MOV AH,4CH

INT 21H

END
```