

```
.MODEL SMALL
.DATA
```

```
PA EQU 0D800H
PB EQU 0D801H
PC EQU 0D802H
CW EQU 0D803H
```

```
HO DB ?
M DB ?
S DB ?
MS DB ?
```

```
TABLE DB 0C0H,0F9H,0A4H,0B0H,99H,92H,82H,0F8H,80H,90H
```

```
.CODE
MOV AX,@DATA
MOV DS,AX
```

```
MOV DX,CW
MOV AL,80H      ;All ports are outputs
OUT DX,AL
```

```
MOV AH,2CH      ;read system time
INT 21H
MOV HO,CH
MOV M,CL
MOV S,DH
MOV MS,DL
```

```
MOV AL,M        ;HH:MM
CALL UNPACK
MOV AL,HO
CALL UNPACK
```

```
CALL DELAY
```

```
MOV AL,MS       ;SS:MS
CALL UNPACK
MOV AL,S
CALL UNPACK
```

```
MOV AH,4CH
```

INT 21H

UNPACK PROC NEAR

AAM ;ASCII Codes for multiplication

CALL DISPLAY

MOV AL,AH

CALL DISPLAY

RET

UNPACK ENDP

DISPLAY PROC NEAR

LEA BX,TABLE ;match the bcd number

XLAT

MOV BL,08D

SEGMENTS:

ROL AL,01H

MOV DX,PB

OUT DX,AL

PUSH AX

MOV DX,PC

MOV AL,00H

OUT DX,AL

MOV AL,01H

OUT DX,AL

POP AX

DEC BL

JNZ SEGMENTS

RET

DISPLAY ENDP

DELAY PROC NEAR

PUSH SI

PUSH DI

MOV SI,0FFFFH

Outer:

MOV DI,0FFFFH

Inner:

DEC DI

JNZ Inner

```
        DEC SI
    JNZ Outer

    POP DI
    POP SI
    RET
DELAY ENDP

END
```