```
list p=16f877
#INCLUDE<P16F877.INC>


COUNT EQU 0X04
COUNTER2 EQU 0X05
NUM EQU 0X10
NUM2 EQU 0X11


ORG 0X00
GOTO MAIN
ORG 0X08


MAIN:
BSF STATUS,RP0
CLRF TRISB
CLRF TRISC
CLRF PORTB
CLRF PORTC
BCF STATUS,RP0
MOVLW 0X02
MOVWF COUNT


DISPLAY0:
MOVLW 0X03
ADDLW 0X01
MOVWF NUM
CALL CHECK_NUM


DISPLAY1:
MOVLW 0X04
ADDLW 0X03
MOVWF NUM
CALL CHECK_NUM
GOTO END_PROG


CHECK_NUM:
MOVLW 0X00
SUBWF NUM,W
BTFSS STATUS,Z
GOTO CHECK1
MOVLW 0X3F
DECFSZ COUNT
MOVWF PORTB
MOVWF PORTC
RETURN


CHECK1:
MOVLW 0X01
SUBWF NUM,W
BTFSS STATUS,Z
GOTO CHECK2
MOVLW 0X06
DECFSZ COUNT
MOVWF PORTB
MOVWF PORTC
RETURN
```

```
CHECK2:                          RETURN
MOVLW 0X02
SUBWF NUM,W                      CHECK5:
BTFSS STATUS,Z                   MOVLW 0X05
GOTO CHECK3                      SUBWF NUM,W
MOVLW 0X5B                       BTFSS STATUS,Z
DECFSZ COUNT                     GOTO CHECK6
MOVWF PORTB                      MOVLW 0X6D
MOVWF PORTC                      DECFSZ COUNT
RETURN                           MOVWF PORTB
                                 MOVWF PORTC
                                 RETURN
CHECK3:
MOVLW 0X03
SUBWF NUM,W                      CHECK6:
BTFSS STATUS,Z                   MOVLW 0X06
GOTO CHECK4                      SUBWF NUM,W
MOVLW 0X4F                       BTFSS STATUS,Z
DECFSZ COUNT                     GOTO CHECK7
MOVWF PORTB                      MOVLW 0X7D
MOVWF PORTC                      DECFSZ COUNT
RETURN                           MOVWF PORTB
                                 MOVWF PORTC
                                 RETURN
CHECK4:
MOVLW 0X04
SUBWF NUM,W
BTFSS STATUS,Z
GOTO CHECK5
MOVLW 0X66                       CHECK7:
DECFSZ COUNT                     MOVLW 0X07
MOVWF PORTB                      SUBWF NUM,W
MOVWF PORTC                      BTFSS STATUS,Z
```

GOTO CHECK8

MOVLW 0X07

DECFSZ COUNT

MOVWF PORTB

MOVWF PORTC

RETURN

CHECK8:

MOVLW 0X08

SUBWF NUM,W

BTFSS STATUS,Z

GOTO CHECK9

MOVLW 0X7F

DECFSZ COUNT

MOVWF PORTB

MOVWF PORTC

RETURN

CHECK9:

MOVLW 0X09

SUBWF NUM,W

BTFSS STATUS,Z

GOTO ZERO

MOVLW 0X6F

DECFSZ COUNT

MOVWF PORTB

MOVWF PORTC

RETURN

ZERO:

MOVLW 0X3F

DECFSZ COUNT

MOVWF PORTB

MOVWF PORTC

RETURN

END_PROG:

END