```
org 00h
MOV R0,#'0'
MOV R2,#'0'
MOV R1,#'0'
MOV R3,#'0'

FIND:
jnb p1.0,start
sjmp find

start:
acall startlcd
mov dptr,#data1
ACALL strt
ACALL DATAWRT

find1:
jnb p1.1,Enter
jnb p1.2,Exit
jnb p1.3,result
sjmp find1
sjmp find

Enter:
acall startlcd
mov dptr,#data2
acall strt
cjne r0,#'9',f
inc r2
acall value2
mov A,r2
acall datawrt
mov r0,#'0'
acall value1
mov A,r0
acall datawrt
sjmp find1

f:acall value2
mov A,r2
acall datawrt
inc r0
acall value1
MOV A,R0
ACALL DATAWRT
sjmp find1
find12: jmp find1

Exit:
acall startlcd
mov dptr,#data3
acall strt
```

```
cjne r1,#'9',ef
inc r3
acall value1
mov A,r3
acall datawrt
mov r1,#'0'
acall value2
mov A,r1
acall datawrt
ljmp find1

ef:acall value2
mov A,r3
acall datawrt
inc r1
acall value1
MOV A,R1
ACALL DATAWRT
sjmp find12

result:
acall startlcd
mov dptr,#data4
acall strt
loop: cjne r1,#'0',loop1
loop2:cjne r3,#'0',loop3
sjmp go
loop1: cjne r0,#'0',loop4
mov r0,#'9'
dec r1
dec r2
sjmp loop
loop4: dec r0
     dec r1
     sjmp loop
loop3: dec r2
dec r3
sjmp loop2
go: lcall value1
mov a,r0
lcall datawrt
lcall value2
mov a,r2
lcall datawrt

stop: jmp stop


strt:
CLR A
MOVC A,@A+DPTR
```

```
JZ aga
ACALL DATAWRT
inc dptr
sjmp strt
aga: RET

startlcd:
MOV A,#80H
ACALL COMNWRT
MOV A,#38H
ACALL COMNWRT
MOV A,#0EH
ACALL COMNWRT
MOV A,#01H
ACALL COMNWRT
MOV A,#06H
ACALL COMNWRT
MOV A,#14H
ACALL COMNWRT
RET

value1:
MOV A,#0C3H
ACALL COMNWRT
RET
VALUE2:
MOV A,#0C2H
ACALL COMNWRT
RET
COMNWRT:
MOV P3,A
CLR P2.0
CLR P2.1
SETB P2.2
ACALL DELAY
CLR P2.2
ACALL DELAY
RET

DATAWRT:
MOV P3,A
SETB P2.0
CLR P2.1
SETB P2.2
ACALL DELAY
CLR P2.2
ACALL DELAY
RET

DELAY: MOV R5,#50
HERE2: MOV R6,#200
HERE:DJNZ R6,HERE
```

```
DJNZ R5,HERE2
RET

org 200h
data1: DB 'Bidirectional visitor counter',0
data2: DB 'Persons Entered',0
data3: DB 'Persons Left ',0
data4: DB 'Total Persons inside',0
end
```