```
ASSUME CS:CODE,DS:DATA
```

DATA SEGMENT

NUM1 DB 04H

NUM2 DB 03H

NUM3 DB 04H

SUM DB 01H DUP(?)

CARRY DB 01H DUP(?)

DATA ENDS

CODE SEGMENT

START:MOV AX,DATA

MOV DS,AX

MOV CL,00

MOV AL, NUM1

MOV BL, NUM2

ADD AL,BL

JNC L1

INC CL

L1:MOV BL, NUM3

ADD AL,BL

JNC L2

INC CL

L2:MOV SUM,AL

MOV CARRY.CL

MOV AX,4C00H

INT 21H

CODE ENDS

END START

```
076B:0000 B8 6A 07 8E D8 B1 00 A0-00 00 8A 1E 01 00 02 C3
076B:0010 73 02 FE C1 8A 1E 02 00-02 C3 73 02 FE C1 A2 03
                                                              S.....
076B:0020 00 88 0E 04 00 B8 00 4C-CD 21 FC 8B 56 FE 05 0C
                                                              .......L. • ... V....
076B:0030 00 52 50 E8 EA 48 83 C4-04 50 E8 7B 0E 83 C4 04
                                                              .RP..H...P. €....
076B:0040 3D FF FF 74 03 E9 ED 00-C4 5E FC 26 8A 47 OC 2A
                                                              =..t....^.&.G.*
                                                              .CP......RP...H.
076B:0050 E4 40 50 8B C3 8C C2 05-0C 00 52 50 E8 C1 48 83
076B:0060 C4 04 50 8D 86 FA FE 50-E8 17 73 83 C4 06 8B B6
                                                              ...P....P...s....
076B:0070 FA FE 81 E6 FF 00 C6 82-FB FE 00 2B C0 50 8D 86
                                                               . . . . . . . . . . . . + .P . .
-d 076A:0000
076A:0000 04 03 04 0B 00 00 00 00-00 00 00 00 00 00 00 00
           B8 6A 07 8E D8 B1 00 A0-00 00 8A 1E 01 00 02 C3
076A:0010
                                                               . j . . . . . . . . . . . . . . .
076A:0020 73 02 FE C1 8A 1E 02 00-02 C3 73 02 FE C1 A2 03
                                                              s.......s....
076A:0030 00 88 0E 04 00 B8 00 4C-CD 21 FC 8B 56 FE 05 0C
                                                              ....L.t..V...
076A:0040
           00 52 50 E8 EA 48 83 C4-04 50 E8 7B
                                               OE 83 C4 O4
                                                               .RP..H...P.{....
                                                              =..t....^.&.G.*
           3D FF FF
                    74 03 E9 ED 00-C4 5E FC 26 8A 47 0C 2A
076A:0050
           E4 40 50 8B C3 8C C2 05-0C 00 52 50 E8 C1 48 83
                                                              .@P......RP...H.
076A:0060
076A:0070 C4 04 50 8D 86 FA FE 50-E8 17 73 83 C4 06 8B B6
                                                              ..P....P..s....
```

ASSUME CS:CODE,DS:DATA DATA SEGMENT NUM1 DW 0A427H NUM2 DW 0FE67H NUM3 DW 06A27H

```
SUM DW 01h DUP(?)
CARRY DW 01h DUP(?)
DATA ENDS
CODE SEGMENT
```

```
START:MOV AX,DATA
  MOV DS,AX
  mov CX.0000h
  MOV AX, NUM1
  MOV BX.NUM2
  ADD AX,BX
  JNC L1
  INC CX
 L1:MOV BX,NUM3
  ADD AX,BX
  JNC L2
  INC CX
 L2:MOV SUM,AX
  MOV CARRY, CX
  MOV AX.4C00H
  INT 21H
  CODE ENDS
  END START
```

```
076B:0000
           B8 6A 07 8E D8 B9 00 00-A1 00 00 8B 1E 02 00 03
                                                                  . j. . . . . . . . . . . . . . .
           C3 73 01 41 8B 1E 04 00-03 C3 73 01 41 A3 06 00
076B:0010
                                                                  .s.A....s.A...
                                                                  .....L. !F...U...
076B:0020
           89 OE 08 00 B8 00 4C CD-21 46 FC 8B 56 FE 05 OC
076B:0030
           00 52 50 E8 EA 48 83 C4-04 50 E8
                                                                  .RP..H...P. {....
                                               7B
                                                  OE 83 C4 O4
                                                                 =..t....^.&.G.*
.@P.....RP..H.
076B:0040
           3D FF FF
                     74
                        03 E9 ED 00-C4 5E FC 26 8A 47 0C 2A
                        C3 8C C2 05-0C 00 52
076B:0050
           E4 40 50 8B
                                               50
                                                  E8 C1 48
                                                            83
076B:0060
           C4 04 50 8D
                        86 FA FE
                                  50-E8 17 73
                                                                  ...P....P...s.....
                                               83
                                                  C4 06
                                                            B6
                                                                  076B:0070
           FA FE 81 E6 FF
                           00 C6 82-FB FE 00 2B
                                                  CO 50 8D 86
-d 076A:0000
           27 A4 67 FE 27 6A B5 OC-02 00 00 00 00 00 00 00
076A:0000
                                                                  '.g.'j......
076A:0010
           B8 6A 07 8E D8 B9 00 00-A1 00 00 8B
                                                  1E 02 00 03
                                                                  . j. . . . . . . . . . . . . . .
076A:0020
           C3 73 01 41
                        8B 1E 04 00-03 C3 73
                                               01
                                                  41 A3 06 00
                                                                  .s.A.....s.A...
076A:0030
           89 OE 08 00
                        B8 00 4C CD-21 46 FC
                                               8B
                                                  56 FE 05 0C
                                                                  . . . . . . L . !F . . V . . .
           00 52 50
076A:0040
                     E8
                        EA 48 83 C4-04 50 E8
                                               7B
                                                  0E 83 C4 04
                                                                  .RP..H...P.{....
                                                                  =..t....^.&.G.*
           3D FF
                     74
                           E9 ED 00-C4 5E
076A:0050
                  \mathbf{F}\mathbf{F}
                        03
                                           FC
                                               26
                                                  8A 47
                                                        00
                                                            2A
076A:0060
           E4 40 50 8B
                        C3 8C
                              C2 05-0C 00 52
                                               50
                                                  E8
                                                     C1
                                                        48 83
                                                                  .@P......RP...H.
076A:0070
           C4 O4 50 8D 86 FA FE 50-E8 17
                                            73 83
                                                  C4 06 8B B6
```

assume cs:code,ds:data data segment num1 dw 0abcfh num2 dw 00c4h prol dw 01h dup(?) proh dw 01h dup(?) data ends code segment start:mov ax,data mov ds,ax mov ax,num1 mov bx,num2 mul bx mov prol,ax mov proh,dx mov ax,4c00h int 21h code ends end start

```
076B:0000
           B8 6A 07 8E D8 A1 00 00-8B 1E 02 00 F7 E3 A3 04
           00 89 16 06 00 B8 00 4C-CD 21 C4 04
076B:0010
                                                3D FF
                                                      \mathbf{F}\mathbf{F}
                                                               ......L. ! . . = . . t
                                                               076B:0020
           03 E9 11 01
                       B8 2F
                             00 50-8B 46 FC 8B
                                                56 FE 05 0C
076B:0030
           00 52 50 E8 EA 48 83 C4-04 50 E8 7B 0E 83 C4 04
                                                               .RP..H...P. {....
           3D FF FF 74 03 E9 ED 00-C4 5E FC 26 8A 47 0C 2A
                                                               =..t....^.&.G.*
076B:0040
           E4 40 50 8B C3 8C C2 05-0C 00 52 50 E8 C1 48 83
076B:0050
                                                               .@P......RP...H.
076B:0060 C4 04 50 8D 86 FA FE 50-E8 17 73 83 C4 06 8B B6
                                                               ...P....P...s....
                                                               . . . . . . . . . . . . . P . .
076B:0070 FA FE 81 E6 FF 00 C6 82-FB FE 00 2B C0 50 8D 86
-d 076A:0000
076A:0000
           CF AB C4 00 7C 8A 83 00-00 00 00 00 00 00 00 00
                                                               . . . . 1 . . . . . . . . . . .
076A:0010
           B8 6A 07 8E D8 A1 00 00-8B 1E 02 00 F7
                                                   E3 A3 04
076A:0020
           00 89 16 06 00 B8 00 4C-CD 21 C4 04
                                                3D FF FF
                                                         74
                                                               ....L.!..=..t
076A:0030
           03 E9 11 01
                       B8 2F 00 50-8B 46 FC 8B 56 FE 05 0C
                                                               076A:0040
           00 52 50 E8 EA 48 83 C4-04 50 E8 7B
                                                OE 83 C4 O4
                                                               .RP..H...P. {....
                                                               =..t....^.&.G.*
076A:0050
           3D FF FF 74
                       03 E9 ED 00-C4 5E FC 26
                                                8A 47 0C ZA
076A:0060
           E4 40 50 8B C3 8C C2 05-0C 00 52 50 E8 C1 48 83
                                                               .@P......RP...H.
           C4 04 50 8D 86 FA FE 50-E8 17 73 83 C4 06 8B B6
076A:0070
                                                               ...P....P...s.....
```

ASSUME CS:CODE,DS:DATA DATA SEGMENT div1 DW 7004H div2 DW 01c1H dvr dw 020ch quo1 dw 01h dup(?) quo2 dw 01h dup(?) DATA ENDS CODE SEGMENT

START:MOV AX.DATA

MOV DS,AX
MOV AX,div1
mov DX,div2
mov bx,dvr
div BX
mov quo1,ax
mov quo2,dx
MOV AX,4C00H
INT 21H
CODE ENDS
END START

```
00 8B 1E 04 00
076B:0000
             B8 6A 07 8E
                          D8 A1 00 00-8B 16 02
076B:0010
            F7 F3 A3 06
                          00 89
                                  16 08-00 B8
                                                \mathbf{00}
                                                   4C
                                                       CD 21 FF
                                                                 74
                                                                        ..........L.!.t
076B:0020
            03 E9 11
                       01
                           B8 2F
                                 00 50-8B 46
                                               FC 8B
                                                       56 FE 05 0C
                                                                        .........P.F...V....
076B:0030
            00 52 50
                       E8
                           EA 48 83 C4-04 50 E8
                                                   7B
                                                       OE 83 C4 O4
                                                                        .RP..H...P.{....
                                                                        =..t....^.&.G.*
.@P.....RP..H.
076B:0040
             3D FF
                   \mathbf{F}\mathbf{F}
                       74
                           03
                              E9
                                     00-C4 5E
                                                FC
                                                   26
                                  ED
                                                       8A 47 0C
                                                                  2A
                           C3 8C
                                            00 52
076B:0050
             E4 40 50
                       8B
                                 CZ
                                     05-00
                                                   50
                                                       E8
                                                          C1
                                                              48
                                                                 83
076B:0060
            C4
                04 50
                       8D
                           86
                              FA
                                 \mathbf{FE}
                                     50-E8
                                            17
                                                73
                                                   83
                                                       C4
                                                          06
                                                              8B
                                                                  B6
                                                                        ...P....P...s.....
076B:0070
            FA FE 81 E6
                          \mathbf{F}\mathbf{F}
                              00 C6 82-FB FE 00 2B
                                                       CO 50 8D
                                                                        . . . . . . . . . . . . + . P . .
-d 076A:0000
076A:0000
            04 70 C1 01
                          OC 02 92 DB-2C 01 00 00 00 00 00 00
                                                                        076A:0010
             B8 6A 07
                       8E
                          D8 A1
                                 00 00-8B 16 02
                                                   \mathbf{00}
                                                       8B 1E 04
                                                                 00
                                                                        . j. . . . . . . . . . . . . . . . .
076A:0020
                           00 89
                                     08-00 B8 00 4C
                                                                        .....L.†.t
            F7
                F3 A3
                       06
                                  16
                                                       CD 21
                                                              \mathbf{F}\mathbf{F}
                                                                  74
076A:0030
            03 E9 11
                       01
                           B8 2F
                                  00
                                     50-8B 46 FC
                                                   8B
                                                       56 FE
                                                              05 0C
                                                                        .........P.F...V....
076A:0040
             00 52
                           EA 48
                                     C4-04 50
                                                                        .RP..H...P.{....
                   50
                       E8
                                  83
                                                E8
                                                    7B
                                                       ΘE
                                                          83
                                                              C4
                                                                 04
                                                                        =..t....^.&.G.*
076A:0050
             3D FF
                    \mathbf{F}\mathbf{F}
                       74
                           03
                              E9
                                  ED
                                     00 - C4
                                            5E
                                                FC
                                                   26
                                                       8A
                                                          47
                                                              00
                                                                  2A
             E4 40 50 8B
                           C3 8C
                                 C2 05-0C 00 52
                                                   50
                                                          C1
076A:0060
                                                       E8
                                                              48 83
                                                                        .@P......RP...H.
076A:0070
                04 50 8D 86 FA FE
                                     50-E8 17 73 83 C4
             C4
                                                          06 8B B6
                                                                        ..P....P..s....
```

```
assume cs:code,ds:data
data segment
arr dw 25h,43h,0aah,12h,10h
len dw $-arr
lar dw 1 dup(?)
sma dw 1 dup(?)
data ends
code segment
start:mov ax,data
   mov ds,ax
   lea si,arr
   mov cx,len
   shr cx,1
   mov ax,0000h
   mov bx,arr[si]
  11:cmp ax,arr[si]
    inc 12
    mov ax,arr[si]
  12:cmp bx,arr[si]
    inc 13
    mov bx,arr[si]
  13:inc si
  inc si
  loop 11
  mov lar.ax
  mov sma,bx
  mov ah,4ch
  int 21h
  code ends
```

end start

```
076B:0000
             B8 6A 07
                       8E
                           D8 8D 36 00-00 8B 0E
                                                    ΘĤ
                                                       00 D1 E9 B8
                                                                         . j . . . . 6 . . . . . . . . .
076B:0010
             00 00 8B 9C
                           00 \ 00
                                  3B 84-00 00 73
                                                    04
                                                       8B 84 00 00
                                                                         . . . . . . ; . . . s . . . . .
                                                                         ;...s.....FF....
076B:0020
             3B 9C 00 00
                           73 04 8B
                                     90-00 00 46
                                                    46
                                                       EZ
                                                           E8 A3 OC
                                                                         .....L. !P. {....
076B:0030
             00 89 1E
                       \ThetaE
                           00 B4 4C CD-21 50 E8
                                                    7B
                                                       OE 83 C4 O4
                                                                        =..t....^.&.G.*
076B:0040
             3D FF
                    \mathbf{F}\mathbf{F}
                       74
                           03
                              E9
                                     00-C4 5E
                                                FC
                                                    26
                                  ED
                                                       8A 47
                                                              \infty
                                                                  2A
                                                                         .cP......RP...H.
076B:0050
             E4
                40
                    50
                       8B
                           C3
                              8C
                                  CZ
                                      05-00
                                             00 52
                                                    50
                                                       E8
                                                           C1
                                                              48
                                                                  83
076B:0060
             C4
                04
                    50
                       8D
                           86
                              FA
                                  \mathbf{FE}
                                      50-E8
                                             17
                                                73
                                                    83
                                                       C4
                                                           06
                                                               8B
                                                                  B6
                                                                         ...P....P...s.....
076B:0070
             FA FE 81 E6
                           \mathbf{F}\mathbf{F}
                              00 C6 82-FB FE 00 2B
                                                       CO 50 8D
                                                                         . . . . . . . . . . . + .P . .
-d 076A:0000
076A:0000
             25 00 43 00 AA 00 12 00-10 00 0A 00 AA 00 AA 00
                                                                        ×.C....
                                                                         . j. . . . 6 . . . . . . . . .
076A:0010
             B8 6A 07
                       8E
                           D8 8D
                                  36
                                     00-00 8B 0E
                                                    ΘA
                                                       00 D1 E9
                                                                  B8
             00 00 8B
076A:0020
                                  3B
                                     84-00 00 73
                       90
                           00 \ 00
                                                    04
                                                       8B 84
                                                              00
                                                                  00
                                                                         . . . . . . ; . . . s . . . . .
                                                                        ;...s.....FF....
076A:0030
             3B 9C 00
                       00
                           73 04
                                  8B
                                     90-00 00 46
                                                    46
                                                       E2
                                                           E8
                                                              AЗ
                                                                  \ThetaC
076A:0040
             00 89
                    1E
                                                    7B
                                                                         .....L. !P. {....
                       ΘE
                           00
                              B4
                                  4C
                                     CD-21 50 E8
                                                       ΘE
                                                           83
                                                              C4
                                                                  04
076A:0050
             3D FF
                    \mathbf{F}\mathbf{F}
                       74
                           03
                              E9
                                  ED
                                      00 - C4
                                             5E
                                                FC
                                                    26
                                                       8A
                                                           47
                                                               00
                                                                  2A
                                                                        =..t....^.&.G.∗
             E4 40
                   50 8B
                           C3 8C
                                  C2 05-0C 00 52
                                                    50
                                                           C1
076A:0060
                                                       E8
                                                              48 83
                                                                         .@P......RP...H.
076A:0070
                04 50 8D 86 FA FE
                                     50-E8 17 73 83 C4 06 8B B6
             C4
                                                                         ..P....P..s....
```

```
assume cs:code,ds:data
data segment
arr db 99h,12h,56h
len dw $-arr
ev dw 1 dup(?)
data ends
code segment
start:mov ax,data
    mov ds,ax
   lea si,arr
   mov cx,len
   mov bx,0000h
  l1:mov al,arr[si]
    and al,01h
    cmp al,00h
    jnz 12
    mov ah,00h
    mov al, arr[si]
    add bx,ax
  12:inc si
  loop 11
  mov ev,bx
  mov ah,4ch
  int 21h
  code ends
  end start
```

```
076B:0000
            B8 6A 07 8E D8 B1 00 A0-00 00 8A 1E
                                                      01 00 02
                                                                С3
                                                                       .j.....
076B:0010
            73 02 FE C1
                          8A 1E 02 00-02 C3
                                               73 02
                                                      FE C1 A2
                                                                03
                                                                      s.......s....
076B:0020
            00 88 0E
                      04
                          00 B8 00 4C-CD 21 FC
                                                  8B
                                                      56 FE 05
                                                                \ThetaC
                                                                       . . . . . . . L . <del>!</del> . . V . . .
076B:0030
            00 52 50 E8
                          EA 48 83 C4-04 50 E8
                                                  7B
                                                      OE 83 C4 O4
                                                                       .RP..H...P.{....
                                                                      =..t....^.&.G.*
.@P......RP..H.
076B:0040
            3D FF
                   \mathbf{F}\mathbf{F}
                       74
                          03
                             E9
                                 ED 00-C4 5E
                                              FC
                                                  26
                                                      8A 47 0C
                                                                2A
                          C3 8C
                                    05-00 00 52
076B:0050
            E4 40 50
                      8B
                                 cz
                                                  50
                                                      E8
                                                         C1
                                                             48
                                                                83
076B:0060
            C4
               04
                   50
                      8D
                          86
                             FA
                                FΕ
                                    50-E8
                                           17
                                               73
                                                  83
                                                      C4
                                                         06
                                                             8B
                                                                B6
                                                                       ...P....P...s.....
076B:0070
            FA FE 81 E6
                          \mathbf{F}\mathbf{F}
                             00 C6 82-FB FE 00 2B
                                                      CO 50 8D
                                                                       -d 076A:0000
076A:0000
            04 03 04 0B 00 00 00 00-00 00 00 00 00 00 00 00
076A:0010
            B8 6A 07
                      8E
                          D8 B1 00 A0-00 00 8A 1E
                                                      01 00 02
                                                                C3
                                                                       . j. . . . . . . . . . . . . . . . .
076A:0020
            73 02 FE
                      C1
                          8A 1E 0Z 00-0Z C3
                                               73
                                                  02
                                                      FE C1 AZ
                                                                03
                                                                      s....s....s....
076A:0030
            00 88 0E
                      04
                          00 B8 00 4C-CD 21 FC
                                                  8B
                                                      56 FE 05
                                                                \ThetaC
                                                                       . . . . . . . L . ! . . U . . .
076A:0040
            00 52
                   50
                          EA 48 83
                                    C4-04 50 E8
                                                  7B
                                                                       .RP..H...P.{....
                       E8
                                                      ΘE
                                                         83
                                                             C4
                                                                04
                                                                      =..t....^.&.G.*
076A:0050
            3D FF
                   \mathbf{F}\mathbf{F}
                       74
                          03
                              E9
                                 ED
                                    00 - C4
                                           5E
                                               FC
                                                  26
                                                      8A
                                                         47
                                                             \infty
                                                                2A
            E4 40 50 8B
                          C3 8C
                                 C2 05-0C 00 52
                                                  50
                                                         C1
076A:0060
                                                      E8
                                                             48 83
                                                                       .@P......RP...H.
076A:0070
            C4 O4 50 8D 86 FA FE 50-E8 17 73 83 C4
                                                         06 8B B6
                                                                       ..P....P..s....
```

```
assume cs:code,ds:data
data segment
arr db 99h,7ah,0b1h,33h,23h,52h
len dw $-arr
data ends
code segment
start:mov ax,data
   mov ds,ax
   lea si,arr
   mov ax,len
  11:mov dI,si
  inc di
  mov cx,ax
  dec cx
  12:mov bh,arr[si]
    mov bl,arr[di]
    cmp bh,bl
    jc 13
    mov arr[si],bl
    mov arr[di],bh
  13:inc di
  loop 12
  inc si
  dec ax
  cmp ax,0001h
  inz 11
  mov ah,4ch
  int 21h
  code ends
```

end start

```
076B:0000
            B8 6A 07 8E D8 8D 36 00-00 A1 06 00 8B FE 47 8B
                                                                     076B:0010
            C8 49 8A BC 00 00 8A 9D-00 00 3A FB
                                                    72 08 88 90
                                                                    .I....:.r...
076B:0020
            00 00 88 BD
                         00 00 47 E2-E9 46 48
                                                3D
                                                    01 00 75 DC
                                                                    ......G..FH=..u.
076B:0030
            B4 4C CD 21
                         EA 48 83 C4-04 50 E8 7B
                                                    OE 83 C4 O4
                                                                     .L. ! .H. . . P . { . . . .
                                                                    =..t....^.&.G.*
.@P......RP..H.
076B:0040
            3D FF
                  \mathbf{F}\mathbf{F}
                         03 E9 ED 00-C4 5E FC 26
                      74
                                                    8A 47 0C
                                                              ZA
076B:0050
            E4 40 50 8B
                         C3 8C C2 05-0C 00 52
                                                 50
                                                    E8 C1 48
                                                              83
076B:0060
            C4 04 50 8D
                         86
                            FA FE
                                   50-E8 17 73
                                                 83
                                                    C4 06
                                                              B6
                                                                    ...P....P...s.....
076B:0070
            FA FE 81 E6
                         \mathbf{F}\mathbf{F}
                            00 C6 82-FB FE 00 2B
                                                    CO 50 8D
                                                                     . . . . . . . . . . . + .P . .
-d 076A:0000
076A:0000
            23 33 52 7A 99 B1 06 00-00 00 00 00 00 00 00 00
                                                                    #3Rz . . . . . . . . . . . . .
            B8 6A 07 8E D8 8D 36 00-00 A1 06 00 8B FE 47 8B
                                                                    .j....6......G.
076A:0010
            C8 49 8A BC 00 00 8A 9D-00 00 3A FB
076A:0020
                                                    72 08 88 90
                                                                    .I....:.r...
076A:0030
            00 00 88 BD
                         00 00 47 E2-E9 46 48 3D
                                                    01 00 75 DC
                                                                     ......G..FH=..u.
076A:0040
            B4 4C CD 21
                         EA 48 83 C4-04 50 E8
                                                 7B
                                                                    .L. ! .H. . . P . { . . . .
                                                    \mathbf{OE}
                                                       83 C4 04
                                                                    =..t....^.&.G.*
076A:0050
            3D FF
                  \mathbf{F}\mathbf{F}
                      74
                         03 E9 ED 00-C4 5E
                                             FC
                                                 26
                                                    8A
                                                       47
                                                           \infty
                                                              ZA
            E4 40 50 8B
                         C3 8C C2 05-0C 00 52
                                                 50
                                                       C1
076A:0060
                                                    E8
                                                           48 83
                                                                    .OP......RP...H.
076A:0070
            C4 O4 50 8D 86 FA FE 50-E8 17 73 83 C4 O6 8B B6
                                                                    ..P....P...s.....
```

```
ASSUME CS: CODE, DS: DATA
DATA SEGMENT
STR DB 100 dup('$')
LEN DW 0000H
CAPITAL DB 1 DUP(?)
SMALL DB 1 DUP(?)
MSG1 DB 0DH, 0AH, "Capital letters: ","$"
MSG2 DB 0DH, 0AH, "Small letters: ","$"
DATA ENDS
CODE SEGMENT
START:MOV AX, DATA
      MOV DS, AX
      LEA SI, STR
INPUT:
            MOV AH,1H
      INT 21H
      CMP AL,13
      JE L0
      MOV [SI], AL
      INC SI
      INC LEN
      JMP INPUT
L0:
      MOV DL, 00
      MOV DH, 00
      LEA SI, STR
      MOV CX, LEN
L1:
      MOV AL, STR [SI]
      CMP AL, "a"
      JNC L2
      CMP AL, "A"
      JNC L3
```

JC L6

```
L2: CMP AL, "z"
     JC L4
     JNC L6
L3: CMP AL, "Z"
     JC L5
     JNC L6
L4: INC DL
     JMP L6
L5: INC DH
L6: INC SI
     LOOP L1
     MOV CAPITAL, DH
     MOV SMALL, DL
     MOV DX, OFFSET MSG1
     MOV AH, 09H
     INT 21H
     MOV DL, CAPITAL
     MOV AH, 02H
     MOV BL, 30H
     ADD BL, DL
     MOV DL, BL
     INT 21H
     MOV DX, OFFSET MSG2
     MOV AH, 09H
     INT 21H
     MOV DL, SMALL
     MOV AH, 02H
     MOV BL, 30H
     ADD BL, DL
     MOV DL, BL
     INT 21H
     MOV AH, 4CH
     INT 21H
CODE ENDS
     END START
                                C:\>pqm8.exe
                               MynameJohn
ASSUME CS: CODE, DS: DATA
DATA SEGMENT
STR DB 100 dup('$')
LEN DW $-STR
MSG1 DB 0DH, 0AH, "Pallindrome", "$"
MSG2 DB 0DH, 0AH, "Not Pallindrome", "$"
DATA ENDS
CODE SEGMENT
START:MOV AX, DATA
     MOV DS, AX
```

LEA SI, STR

MOV AH,1H

INPUT:

INT 21H CMP AL,13 JE L1 MOV [SI], AL INC SI JMP INPUT L1: MOV DI, OFFSET STR DEC SI L2: CMP SI,DI JL L4 MOV AL,STR[SI] MOV BL,STR[DI] CMP AL,BL JNE L3 DEC SI INC DI JMP L2 L3: MOV DX,OFFSET MSG2 MOV AH,09H INT 21H JMP L5 L4: MOV DX,OFFSET MSG1 MOV AH,09H INT 21H L5: MOV AH, 4CH INT 21H CODE ENDS

END START

C:\>pgm9.exe malayalam

Pallindrome