

3.14 两条指令将字变量装入 AX 寄存器

```
MOV BX, 8000H  
MOV AX, ES: [BX]
```

3.15 求出以下个十六进制与十六进制数 62A0 之和, 并根据结果设置标志位 SF,ZF,CF,OF 的值

(1) 1234

$1234 + 62A0 = 74D4H, SF = 0, ZF = 0, CF = 0, OF = 0$

(2) 4321

$4321 + 62A0 = A5C1H, SF = 1, ZF = 0, CF = 0, OF = 0$

(3) CFA0

$CFA0 + 62A0 = 3240H, SF = 0, ZF = 0, CF = 1, OF = 0$

(4) 9D60

$9D60 + 62A0 = 0000H, SF = 0, ZF = 1, CF = 0, OF = 1$

3.16 求出以下各十六进制数与十六进制数 4AE0 的差值, 并根据结果设置标志位 SF,ZF,CF,OF 的值

(1) 1234

$1234 - 4AE0 = C744, SF = 1, ZF = 0, CF = 1, OF = 0$

(2) 5D90

$5D90 - 4AE0 = 12B0, SF = 0, ZF = 0, CF = 0, OF = 0$

(3) 9090

$9090 - 4AE0 = 45B0, SF = 0, ZF = 0, CF = 0, OF = 1$

(4) EA04

$EA04 - 4AE0 = 9F24, SF = 0, ZF = 0, CF = 0, OF = 0$

3.17 写出执行以下计算的指令序列, 其中 X、Y、Z、R、W 均为存放 16 位带符号数单元的地址

(1) $Z \leftarrow W + (Z - X)$

```
MOV AX,Z  
SUB AX,X  
ADD AX,W  
MOV Z,AX
```

(2) $Z \leftarrow W - (X + 6) - (R + 9)$

```
MOV AX,X  
ADD AX,6  
SUB W,AX  
MOV AX,R  
ADD AX,9  
SUB W,AX  
MOV Z,AX
```

(3) $Z \leftarrow (W * X) / (Y + 6), R \leftarrow \text{余数}$

```
ADD Y,6  
MOV AX,W  
IMUL X  
IDIV Y  
MOV Z,AX
```

MOV R,DX

(4) $Z \leftarrow ((W-X) / 5 * Y) * 2$

MOV AX,W

SUB AX,X

CWD

MOV BX,5

IDIV BX

IMUL Y

SHL AX,1

RCL DX,1

3.23 假设 (BX) = 0E3H, 变量 VALUE 中存放的内容是 79H, 确定下列各条指令单独执行之后的结果

(1) XOR BX,VALUE

(BX) = 9AH, CF = 0, OF = 0, SF = 1, ZF = 0, PF = 1

(2) AND BX,VALUE

(BX) = 61H, CF = 0, OF = 0, SF = 0, ZF = 0, PF = 0

(3) OR BX,VALUE

(BX) = FBH, CF = 0, OF = 0, SF = 1, ZF = 0, PF = 0

(4) XOR BX,0FFH

(BX) = 1CH, CF = 0, OF = 0, SF = 0, ZF = 0, PF = 0

(5) AND BX,0

(BX) = 00H, CF = 0, OF = 0, SF = 0, ZF = 1, PF = 1

(6) TEST BX,01H

(BX) = 0E3H, CF = 0, OF = 0, SF = 1, ZF = 0, PF = 0

3.26 试分析下面的程序段

MOV CL,04

SHL DX,CL

MOV BL,AH

SHL AX,CL

SHR BL,CL

OR DL,BL

本程序将 DX, AX 的双字同时左移 4 位。