Emulator Experiments

**ADD 8-bit**

data segment

a db 09h

b db 02h

c dw ?

data ends

code segment

assume cs:code,ds:data

start:

mov ax,data

mov ds,ax

mov al,a

mov bl,b

add al,bl

mov c,ax

int 3

code ends

end start

**SUB 8-bit**

data segment

a db 15h

b db 12h

c dw ?

data ends

code segment

assume cs:code,ds:data

start:

mov ax,data

mov ds,ax

mov al,a

mov bl,b

sub al,bl

mov c,ax

int 3

code ends

end start

**ADD 16-bit**

data segment

N1 dw 4004h

N2 dw 1001h

Res dw ?

data ends

code segment

assume cs:code,ds:data

start:

mov ax,data

mov ds,ax

mov ax,N1

mov bx,N2

add ax,bx

mov Res,ax

int 3

code ends

end start

**SUB 16-bit**

data segment

N1 dw 4004h

N2 dw 1001h

Res dw ?

data ends

code segment

assume cs:code,ds:data

start:

mov ax,data

mov ds,ax

mov ax,N1

mov bx,N2

sub ax,bx

mov Res,ax

int 3

code ends

end start

**Multiplication**

data segment

A db 09h

B db 02h

Res1 dw ?

data ends

code segment

assume cs: code, ds: data

start:

mov ax, data

mov ds, ax

mov ax, 0002h

mov bx, 0002h

Mul b

mov Res1, ax

int 3

code ends

end start

**Factorial**

data segment

A dw 3h

data ends

code segment

assume cs: code, ds:data

start:

mov ax,data

mov ds,ax

mov cx,A

mov ax, 0001h

L1: mul cx

loop L1

code ends

end start