  1. mov cl, 1  
            mov al, 12h              al = 00001010  
            rol al, cl al = 0010100  
            mov al, 34h al = 00110100  
            mov cl, 2  
            ror al, Cl al = 00001101  
            stc  
            mov al, 56h al = 01010110  
            mov cl, 1  
            rcl al, cl al = 10101101  
            stc  
            mov al, 78h al = 01111000  
            mov cl, 1  
            rcr al, cl al = 10111100

2a.

mov eax, 123

mov ebx, eax

mov ecx, eax

shl eax, 4

shl ebx, 2

shl exc, 1

add eax, ebx

add eax, ebx,

add eax, ecx,

call WRITEINT

3a. 1FFF4

DX:AX = 0001FF4h

If DX is not equal to 0, the high 16 bits of the product will still try to be put in dx, but the register not being set to zero will cause an incorrect product.

3b. An IDIV instruction causes an overflow when a division operand produces a quotient that will not fit into the destination operand.

example:

mov ax, 1000h

mov bl, 10h

div bl

3c.

DX: AX = FFFFFFFC

These instructions can allow the computer to perform operations on numbers larger than 16 bits