Q1: Write a program to multiply 2 8-bit numbers stored at 2000h and 2001h. Store the result at 2002H and 2003H

```
        LXI H, 0000H        ; Result will be in HL, initialized to 0
        LXI D, 0000H        ; DE initialized to 0

        LDA 2000H           ; Take 1st operand
        ADI 00H             ; For Zero check
        JZ Store            ; For Zero check
        MOV E,A             ; DE = 1st operand

        LDA 2001H           ; Take 2nd operand
        ADI 00H             ; For Zero check
        JZ Store            ; For Zero check
        MOV C,A             ; C = 2nd operand

Back:   DAD D               ; Add the 1st operand to HL, HL = HL + DE
        DCR C               ; Decrement the 2nd operand
        JNZ Back            ; Loop till C becomes 0

Store:  SHLD 2002H          ; Store the result

        HLT                 ; End your program
```

Q2: Write a program to divide an 8-bit number stored at 2000h by another stored at 2001h. Store the result at 2002H (Q) and 2003H (R)

```
        LDA 2001H       ; Take divisor in A
        ADI 00H         ; For Zero check
        JZ Exit         ; If Zero, simply exit the program
        MOV C,A         ; C = divisor
        MVI E,00H       ; E = 0 (this will be the quotient)
        LDA 2000H       ; A = Dividend

Back:   CMP C           ; Compare A and C by doing A-C
        JC Next         ; If A < C then move out of the loop
        SUB C           ; A ← A – C, actually do the subtraction
        INR E           ; Increment Quotient
        JMP Back        ; Loop back

Next:   STA 2003H       ; Store the remainder from A to 2003H
        MOV A,E         ; Move Quotient from E to A
        STA 2002H       ; Store the quotient from A to 2002H

Exit:   HLT             ; End your program
```