8 Bit Addition:

LXI H 4000H : HL points 4000H

MOV A, M : Get first operand

INX H : HL points 4001H

ADD M : Add second operand

INX H : HL points 4002H

MOV M, A : Store result at 4002H

HLT : Terminate program execution
8 Bit Subtraction:

Source program:

LXI H, 4000H : HL points 4000H

MOV A, M : Get first operand

INX H : HL points 4001H

SUB M : Subtract second operand

INX H : HL points 4002H

MOV M, A : Store result at 4002H.

HLT : Terminate program execution
8Bit Multiplication

Source program:

- LDA 2200H
- MOV E, A
- MVI D, 00 : Get the first number in DE register pair
- LDA 2201H
- MOV C, A : Initialize counter
- LX I H, 0000 H : Result = 0
- BACK: DAD D : Result = result + first number
- DCR C : Decrement count
- JNZ BACK : If count ≠ 0 repeat
- SHLD 2300H : Store result
- HLT : Terminate program execution

Flowchart for program

8 BIT DIVISION

MVI E, 00 : Quotient = 0
LHLD 2200H : Get dividend
LDA 2300 : Get divisor
MOV B, A : Store divisor
VMI C, 08 : Count = 8
NEXT: DAD H : Dividend = Dividend x 2
MOV A, E
RLC
MOV E, A : Quotient = Quotient x 2
MOV A, H
SUB B : Is most significant byte of Dividend > divisor
JC SKIP : No, go to Next step
MOV H, A : Yes, subtract divisor
INR E : and Quotient = Quotient + 1
SKIP: DCR C : Count = Count - 1
JNZ NEXT : Is count =0 repeat
MOV A, E
STA 2401H : Store Quotient
MOV A, H
STA 2410H : Store remainder
HLT : End of program.

Source : http://nprcer.org/e%20content/Misc/e-Learning/IT/IV%20Sem/CS%2022252-Microprocessors%20and%20Microcontrollers.pdf