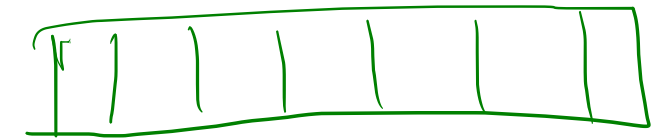


13 Division by repeated subtraction

Address	Instructions	Operand	M.C	Comments
C000, C001, C002	LXI	H, C100H		Load the address at C100
C003	MOV	A, M		
C004	INX	H		
C005	MOV	B, M		
C006, C007	MVI	C, 001H		
C008	CMP	B		
C009, C00A, C00B	JC	C011H		
C00C	SUB	B		
C00D	INR	C		
C00E, C00F, C010	JMP	C008		
C011, C012, C013	STA	C102H		
	MOV	A, C		
	STA	C103H		
	HLT			



$A < B$ $10 \div 2$
 $107D$

$A - B$

$A > B$

$A - B$

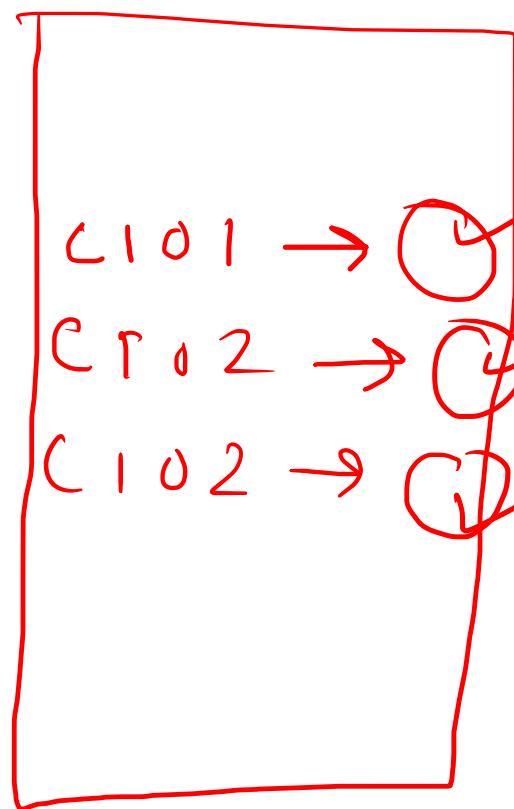
C100 $\rightarrow$ FFH
 C101 $\rightarrow$ 02H

$$20 \div 5$$

$$\left. \begin{array}{l} \checkmark 1. \quad 20 - 5 = 15 \\ \checkmark 2. \quad 15 - 5 = 10 \\ \checkmark 3. \quad 10 - 5 = 5 \\ \checkmark 4. \quad 5 - 5 = \underline{0} \end{array} \right\}$$

14) Generate Fibonacci series $n=8$ 1, 2, 3, 5, 8, - - - - -

<u>Address</u>	<u>Mnemonic</u>	<u>Operand</u>	<u>M-C</u>	<u>Comments</u>
C000, C001, C002	LXI	H, C100H		Load HL ptr with C100H
	XRA	A		Clear Acc ($A=0$)
C003	MOV	B, A		Move 0 $\rightarrow$ B
	MOV	M, A		Move C100H 0 store



	INR	A		
	INX	H		
	MOV	M, A		
	MVI	C, 08H		
	ADD	B		
	MOV	B, M		
	INX	H		
	MOV	M, A		
	DCR	C		
HL	JNZ	HL		

A = 1

C1001H

1 $\rightarrow$ M $\rightarrow$ C1001H

C102

$\left\{ \begin{array}{l} C100 \rightarrow 00 \checkmark \\ C101 \rightarrow 01 \checkmark \\ C102 \rightarrow 01 \end{array} \right.$

$C102 \rightarrow 02 H$

$C103 \rightarrow$

8 times

$B \xleftarrow{0}$
 $A \xleftarrow{\quad}$
 $\text{ADD } (0+1)$
 $\textcircled{A}$