

② Load data 13H & 43H in the memory location C100H and C101H. Transfer the contents of C100 & C101H to the memory location C300H & C301H.

<u>Address</u>	<u>Mnemonic</u>	<u>Operand</u>	<u>MC</u>	<u>Comments</u>
C000, C001, C002	LXI	H, C100H	✓	Load the memory address C100H in Reg pair (HL)
C003, C004	MVI	M, 13H		Move the value 13H in memory location
C005	INX	H		Incrment of the Content of the Reg pair (HL)
C006, C007	MVI	M, 43H		Move the value 43H in memory location
	LHLD	C100H		→ Load the content of the memory location C100 to HL pair.
	SHLD	C300H		

LHLD C101H

SHLD C301H

HLT

output → C100 → 13H }
C101 → 43H } X

C300 → 13H

C301 → 43H

③ Obtain 2's complement of 78 H which is stored in memory location C100 H & store it in C101 H.

<u>Address</u>	<u>Mnemonic</u>	<u>Operand</u>	<u>M.C</u>
C000, C001, C002	LXI	H, C100H	

C003	MOV	A, M	
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C004	CMA		
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C005	INR	A	
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Comments

Load the memory address C100 H in HL Pair
 Move the content of the memory to Acc
 Complement the content of the Acc
 Increment the content of Acc

<u>Address</u>	<u>Mnemonic</u>	<u>Operand</u>	<u>M.C</u>	<u>Comments</u>
{	0006	INX	1H	Address the memory (HL pair) will be incremented. Move the content of the Acc to memory.
	0007	MOV	M, A	
	0008	STP		

Output :- 78 H 2's

$$\begin{array}{r}
 \begin{array}{c} 7 \quad 8 \\ 01111000 \end{array} \\
 \begin{array}{c} 1's \\ 10000111 \end{array} \\
 \begin{array}{c} 2's \\ 10001000 \end{array} \\
 \hline
 \begin{array}{c} 10001000 \\ \hline \end{array}
 \end{array}$$

+ 1

8 8 H

④ Add two numbers 50H and 25H and store the result in decimal form.

<u>Address</u>	<u>Mnemonics</u>	<u>operand</u>	<u>MC</u>	<u>Comments</u>
C000, C001	MVI	A, 50H		Load Acc with 50H
C002, C003	ADI	25H		Add 25H with the content of the Acc
C004	<u>DAA</u>			Adjust the content of the acc in decimal form.
C005	STP			Store in the acc also