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**Q2. Write a program for the sum of series of numbers.**

Memory

0x0 - 0x19

0x8600 - 0x8601

0x8500 - 0x8504

0x 8500

0x 8504

Watch Range

Displaying Memory

Locations from 0x8600 to 0x8601

Double click the value to edit

then press Enter to save the

value or Tab to edit the next

location.

0x8600

B3

1

<Program title>

2

3

JMP START

4

5

;data

6

7

;code

8

START: NOP

9

10

;Start writing your code here

11

LDA 8500H

12

MOV C, A

13

SUB A

14

LXI H, 8501H

15

Back: ADD M

16

INX H

17

DCR C

18

JNZ Back

19

STA 8600H

20

21

22

HLT

Machine Code

1

<Program title>

2

3

0x0 C3 03 00 JMP START

4

5

;data

6

7

;code

8

0x3 START: NOP

9

10

;Start writing your code here

11

0x4 3A 00 85 LDA 8500H

12

0x7 4F MOV C, A

13

0x8 97 SUB A

14

0x9 21 01 85 LXI H, 8501H

**Q3. Write a program for data transfer from memory block B1 to memory block B2.**

0x0 - 0x19

0x8600 - 0x8604

0x8500 - 0x8504

0x 8500    0x 8504

Watch Range

Displaying Memory  
Locations from 0x8600 to 0x8604

Double click the value to edit then press Enter to save the value or Tab to edit the next location.

0x8600	04
0x8601	9A
0x8602	52
0x8603	89

```

1  ;<Program title>
2
3  JMP START
4
5  ;data
6
7  ;code
8  START: NOP
9
10 ;Start writing your code here
11
12 LXI H, 8500H
13 LXI D, 8600H
14 Back: MOV A, M
15 STAX D
16 INX H
17 INX D
18 DCR C
19 JNZ Back
20
21
22 HLT
23
24

```

Machine Code

1	;<Program title>	
2		
3	0x0    C3 03 00	JMP START
4		
5	;data	
6		
7	;code	
8	0x3	START: NOP
9		
10	;Start writing your code here	
11		
12	0x4    21 00 85	LXI H, 8500H
13	0x7    11 00 86	LXI D, 8600H
14	0xA    7E	Back: MOV A, M

#### Q4. Write a program for multiply two 8-bit numbers.

### Memory

0x0 - 0x19

0x8600 - 0x8601

0x8500 - 0x8501

0x 8500

0x 8501

Watch Range

Displaying Memory Locations from 0x8600 to 0x8601

Double click the value to edit then press Enter to save the value or Tab to edit the next location.

0x8600	16
0x8601	02

```

1  ;<Program title>
2
3  JMP START
4
5  ;data
6
7  ;code
8  START: NOP
9
10 ;Start writing your code here
11 LDA 8500H
12 MOV E, A
13 MVI D, 00
14 LDA 8501H
15 MOV C, A
16 LXI H, 0000H
17 Back: DAD D
18 DCR C
19 JNZ Back
20 SHLD 8600H
21
22
23 HLT

```

### Machine Code

1	;<Program title>	
2		
3	0x0	C3 03 00 JMP START
4		
5	;data	
6		
7	;code	
8	0x3	START: NOP
9		
10	;Start writing your code here	
11	0x4	3A 00 85 LDA 8500H
12	0x7	5F MOV E, A
13	0x8	16 00 MVI D, 00
14	0xA	3A 01 85 LDA 8501H

#### Q5. Write a program to add ten 8-bit numbers. Assume the numbers are stored in 8500-8509. Store the result in 850A and 850B memory address.

### Memory

0x0 - 0x1A

0x8500 - 0x850B

0x8600 - 0x8604

0x8500 - 0x8509

0x850A - 0x850B

0x850A

0x850B

Displaying Memory Locations from 0x850A to 0x850B

Double click the value to edit then press Enter to save the value or Tab to edit the next location.

0x850A	08
0x850B	01

```

4  ;data
5
6  ;code
7  START: NOP
8
9
10 ;Start writing your code here
11 MVI C, 00
12 MVI B, 09
13 LXI H, 8500H
14 MOV A, M
15 Back: INX H
16 ADD M
17 JNC Next
18 INR C
19 Next: DCR B
20 JNZ Back
21 INX H
22 MOV M, A
23 INX H
24 MOV M, C
25
26
27 HLT

```

### Machine Code

1	;<Program title>	
2		
3	0x0	C3 03 00 JMP START
4		
5	;data	
6		
7	;code	
8	0x3	START: NOP
9		
10	;Start writing your code here	
11	0x4	0E 00 MVI C, 00
12	0x6	06 09 MVI B, 09
13	0x8	21 00 85 LXI H, 8500H
14	0xB	7E MOV A, M