

HL	1F	40	AC 0
PSW	00	00	
PC	42	0E	P 1
SP	FF	FF	
Int-Reg	00		C 0

```

5 DCH B
6 JNZ LOOP
7 STA 1F40
8 RLT
9

```

Decimal - Hex Conversion

Decimal	Hex
0	0
<input type="button" value="To Hex"/>	<input type="button" value="To Dec"/>

I/O Ports

0	-	+	00
<input type="button" value="Update Port Value"/>			

Memory

0	-	+	00
<input type="button" value="Update Memory"/>			

1F40	8000	6
1F41	8001	36
1F42	8002	0
1F43	8003	0
1F44	8004	0
1F45	8005	0
1F46	8006	0
1F47	8007	0
1F48	8008	0
1F49	8009	0
1F4A	8010	0
1F4B	8011	0

Line No Assembler Message

0 Program assembled successfully

File Reset Assembler Debug Help



Registers

A	00		S 0
BC	09	00	
DE	00	00	Z 1
HL	0D	B1	
PSW	00	00	AC 0
PC	42	1E	P 1
SP	FF	FF	
Int-Reg	00		C 0

Flag

Load me at

```

1  LXI B,
2  MVI D,
3  MVI C,
4  MOV A, M
5  INX B
6  INCR M
7  JNC LOOP2
8  MOV B, M
9  MOV M, A
10 DCR B
11 MOV M, B
12 INX B
13 MVI D,
14 DCR C
15 JNZ LOOP1
16 MOV A, D
17 RRC
18 JC LOOP
19 HLT
20
21

```

Decimal - Hex Conversion

Decimal	Hex
0	0
To Hex	To Dec

I/O Ports

0 - 00

Update Port Value

Memory

0 - 00

Update Memory

File Reset Assembler Debug Help



Registers

A 50
 BC 00 00
 DE 00 00
 HL 00 00
 PSW 00 00
 PC 42 0A
 SP FF FF
 Int Reg 00

Flag

S 0
 Z 0
 AC 0
 P 0
 C 0

Load me at

1 MVI A, 05
 2 RRC
 3 RRC
 4 RRC
 5 RRC
 6 STA 2000
 7 HLT

Decimal - Hex Conversion

Decimal

Hex

0

0

To Hex

To Dec

I/O Ports

0

-

+

00

Update Port Value

Memory

0

-

+

00

Update Memory

Data

Stack

Keypad

Memory

I/O Ports

Start 2000

OK

Address (Hex) Address Data

Address (Hex)	Address	Data
07D0	2000	80
07D1	2001	0
07D2	2002	0
07D3	2003	0
07D4	2004	0
07D5	2005	0
07D6	2006	0
07D7	2007	0
07D8	2008	0
07D9	2009	0
07DA	2010	0
07DB	2011	0

Line No Assembler Message

0 Program assembled successfully

File Reset Assembler Debug Help



Registers

A 4E
BC 00 00
DE 00 00
HL 1F 48
PSW 00 00
PC 42 17
SP FF FF
Int Reg 00

Flag

S 0
Z 1
AC 0
P 1
C 0

Decimal - Hex Conversion

Decimal Hex

0 0

To Hex

To Dec

Load me at

```

1 LXI H, 8000
2 MOV C, M
3 MVI A, 00
4 MOV B, A
5 LOOP: ADD C
6 JNC SKIP
7 INR B
8 SKIP: DCR C
9 JNZ LOOP
10 LXI H, 8007
11 MOV M, A
12 INX H
13 MOV M, B
14 HLT

```

I/O Ports

0 - + 00

Update Port Value

Memory

0 - + 00

Update Memory

Data

Stack

Keypad

Memory

I/O Ports

Start 8000

OK

Address (Hex)	Address	Data
1F40	8000	12
1F41	8001	0
1F42	8002	0
1F43	8003	0
1F44	8004	0
1F45	8005	0
1F46	8006	0
1F47	8007	78
1F48	8008	0
1F49	8009	0
1F4A	8010	0
1F4B	8011	0

Line No Assembler Message

0 Program assembled successfully

File Reset Assembler Debug Help



Registers

A	FA
BC	00 00
DE	00 00
HL	1F 40
PSW	00 00
PC	42 0D
SP	FF FF
Int-Reg	00

Flag

S	1
Z	0
AC	0
P	1
C	0

Load me at

```

1 LDA 3000
2 CMA
3 STA 3001
4 ADI 01
5 STA 3002
6 HLT

```

Decimal - Hex Conversion

Decimal

Hex

To Hex

To Dec

I/O Ports

0 - + 00

Update Port Value

Memory

0 - + 00

Update Memory

Data

Stack

Keypad

Memory

I/O Ports

Start 3000

OK

Address (Hex)	Address	Data
0BB8	3000	6
0BB9	3001	249
0BBA	3002	250
0BBB	3003	0
0BBC	3004	0
0BBD	3005	0
0BBE	3006	0
0BBF	3007	0
0BC0	3008	0
0BC1	3009	0
0BC2	3010	0
0BC3	3011	0

Line No Assembler Message

0 Program assembled successfully



Registers

A	08		Flag
BC	02	08	S 1
DE	00	00	Z 0
HI	04	40	AC 0
PSW	00	00	
PC	42	1E	P 1
SP	FF	FF	
Int Reg	00		C 1

Decimal - Hex Conversion

Decimal	Hex
0	0
To Hex	To Dec

I/O Ports

0	-	+	00
Update Port Value			

Memory

0	-	+	00
Update Memory			

Load me at

```

1 LDA #501
2 MOV B, A
3 LDA #500
4 MVI C, 00
5 LOOP1: CMP B
6 JC LOOP1
7 LOOP2: CMP B
8 JC LOOP3
9 SUB B
10 INR C
11 JMP LOOP2
12 LOOP3: STA
13 MOV A, C
14 #01: STA
15 RST 1

```

Data Stack KeyPad Memory I/O Ports

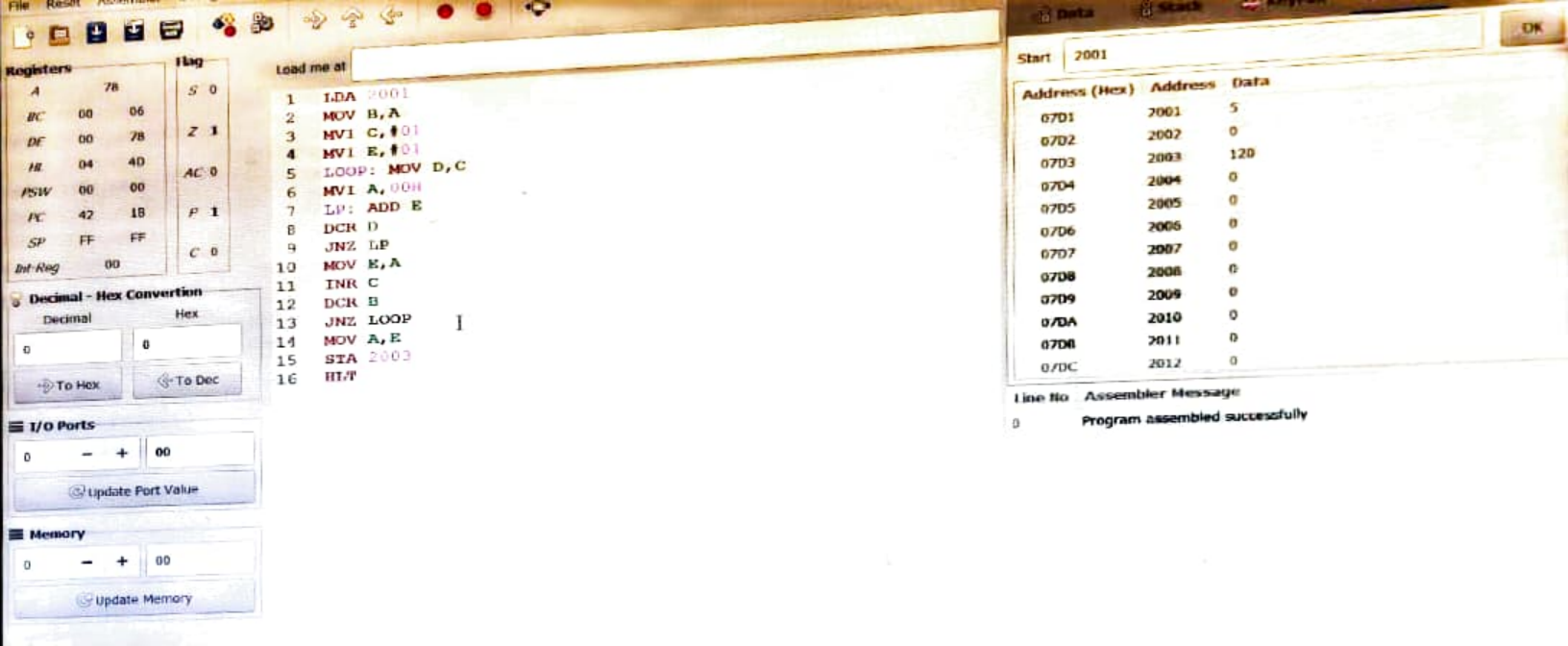
Start: 8500

OK

Address (Hex)	Address	Data
2134	8500	17
2135	8501	2
2136	8502	8
2137	8503	1
2138	8504	0
2139	8505	0
213A	8506	0
213B	8507	0
213C	8508	0
213D	8509	0
213E	8510	0
213F	8511	0

Log Box: Assembler Message

Program assembled successfully



Registers

A	7B	S	0
BC	00 06	Z	1
DE	00 7B	AC	0
HL	04 40	P	1
PSW	00 00	C	0
PC	42 1B		
SP	FF FF		
Int-Reg	00		

Decimal - Hex Conversion

Decimal	Hex
<input type="text" value="0"/>	<input type="text" value="0"/>
<input type="button" value="To Hex"/>	<input type="button" value="To Dec"/>

I/O Ports

<input type="text" value="0"/>	<input type="text" value="00"/>
<input type="button" value="Update Port Value"/>	

Memory

<input type="text" value="0"/>	<input type="text" value="00"/>
<input type="button" value="Update Memory"/>	

Load me at

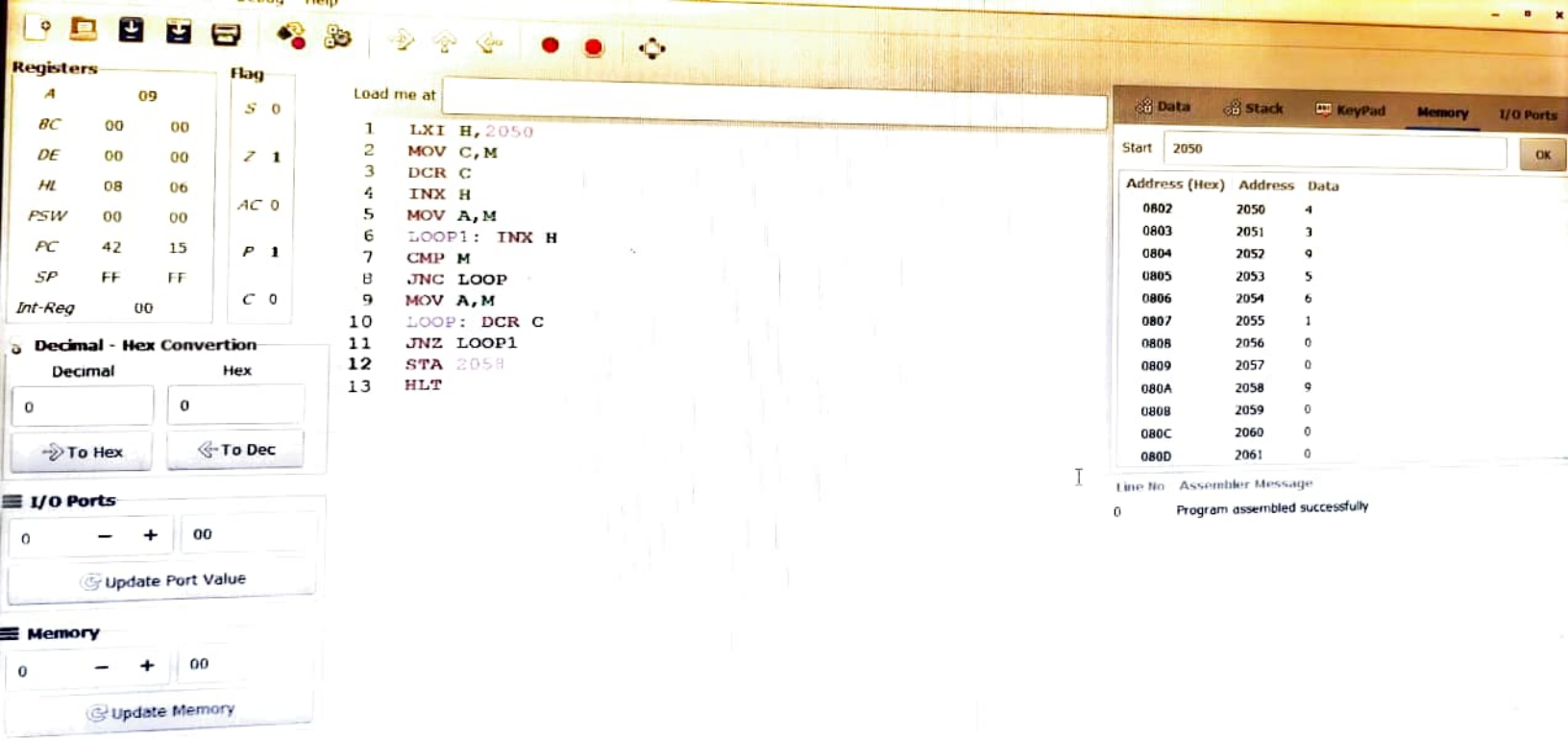
```
1 LDA 2001
2 MOV B,A
3 MVI C,#01
4 MVI E,#01
5 LOOP: MOV D,C
6 MVI A,00H
7 LP: ADD E
8 DCR D
9 JNZ LP
10 MOV E,A
11 INR C
12 DCR B
13 JNZ LOOP
14 MOV A,E
15 STA 2003
16 HLT
```

Start 2001

Address (Hex)	Address	Data
07D1	2001	5
07D2	2002	0
07D3	2003	120
07D4	2004	0
07D5	2005	0
07D6	2006	0
07D7	2007	0
07D8	2008	0
07D9	2009	0
07DA	2010	0
07DB	2011	0
07DC	2012	0

Line No Assembler Message

0 Program assembled successfully



Registers			Flag	
A	09		S	0
BC	00	00	Z	1
DE	00	00	AC	0
HL	08	06	P	1
PSW	00	00	C	0
PC	42	15		
SP	FF	FF		
Int-Reg	00			

Load me at

```
1 LXI H, 2050
2 MOV C, M
3 DCR C
4 INX H
5 MOV A, M
6 LOOP1: INX H
7 CMP M
8 JNC LOOP
9 MOV A, M
10 LOOP: DCR C
11 JNZ LOOP1
12 STA 2058
13 HLT
```

Decimal - Hex Conversion

Decimal

Hex

0

0

→ To Hex

← To Dec

I/O Ports

0

-

+

00

Update Port Value

Memory

0

-

+

00

Update Memory

Data Stack Keypad Memory I/O Ports

Start 2050

OK

Address (Hex)	Address	Data
0802	2050	4
0803	2051	3
0804	2052	9
0805	2053	5
0806	2054	6
0807	2055	1
0808	2056	0
0809	2057	0
080A	2058	9
080B	2059	0
080C	2060	0
080D	2061	0

Line No Assembler Message
0 Program assembled successfully

Registers

Flag

A	40
BC	00 00
DE	00 00
HL	00 00
PSW	00 00
PC	42 0A
SP	FF FF

S	0
Z	0
AC	0
P	0
C	0

Load me at

```
1 MVI A, 04
2 RLC
3 RLC
4 RLC
5 RLC
6 STA 2000
7 HLT
```

Decimal - Hex Conversion

Decimal

Hex

0

0

To Hex

To Dec

I/O Ports

0 - + 00

Update Port Value

Memory

0 - + 00

Update Memory

File Reset Assembler Debug Help



Registers

Flag

A	03	
BC	03	06
DE	00	00
HL	00	00
PSW	00	00
PC	42	10
SP	FF	FF
Int-Reg	00	

S	0
Z	0
AC	0
P	0
C	0

Load me at

```

1  LDA 2001
2  MOV B,A
3  LDA 2002
4  MOV C,A
5  STA 2003
6  MOV A,B
7  STA 2005
8  HLT

```

Decimal - Hex Conversion

Decimal

Hex

0

0

To Hex

To Dec

I/O Ports

0

-

+

00

Update Port Value

Memory

0

-

+

00

Update Memory

File Reset Assembler Debug Help



Registers

Register	Value	Flag	Load me at
A	00	S 0	1 LXI H, 1100
BC	00 00		2 MOV B, M
DE	00 00	< 1	3 MOV C, A
HL	04 4D		4 MOV C, A
PSW	00 00	AC 0	5 INX H
PC	42 19	P 1	6 cont: ADD M
SP	FF FF		7 JNC SKIP
Int-Reg	00	C 0	8 INR C
			9 SKIP: DCR B
			10 JNZ cont
			11 STA 1102
			12 MOV A, C
			13 STA 1103
			14 HLT

Decimal - Hex Conversion

Decimal	Hex
0	0

I/O Ports

0 - + 00

Memory

0 - + 00

Data Stack KeyPad Memory I/O Ports

Start 1100

OK

Address (Hex)	Address	Data
044C	1100	7
044D	1101	4
044E	1102	28
044F	1103	0
0450	1104	0
0451	1105	0
0452	1106	0
0453	1107	0
0454	1108	0
0455	1109	0
0456	1110	0
0457	1111	0

Line No Assembler Message

0 Program assembled successfully

Simulator: Idle



Search

ENG
IN

13:45

12-01-2024

File Reset Assembler Debug Help



Registers

A	01		S	0
BC	00	00	Z	1
DE	00	00	AC	0
HL	08	07	P	1
PSW	00	00	C	1
PC	42	15		
SP	FF	FF		
Int-Reg	00			

Flag

Load me at

```

1 LXI H,2050
2 MOV C,M
3 DCR C
4 INX H
5 MOV A,M
6 LOOP1: INX H
7 CMP M
8 JC LOOP
9 MOV A,M
10 LOOP: DCR C
11 JNZ LOOP1
12 STA 2057
13 HLT

```

Decimal - Hex Conversion

Decimal

Hex

0

0

To Hex

To Dec

I/O Ports

0

-

+

00

Update Port Value

Memory

0

-

+

00

Update Memory

Data Stack KeyPad Memory I/O Ports

Start 2050

OK

Address (Hex) Address Data

0802	2050	5
0803	2051	2
0804	2052	8
0805	2053	1
0806	2054	0
0807	2055	3
0808	2056	0
0809	2057	1
080A	2058	0
080B	2059	0
080C	2060	0
080D	2061	0

Line No Assembler Message

0 Program assembled successfully

GNUSim8085 - 8085 Microprocessor Simulator

End me at

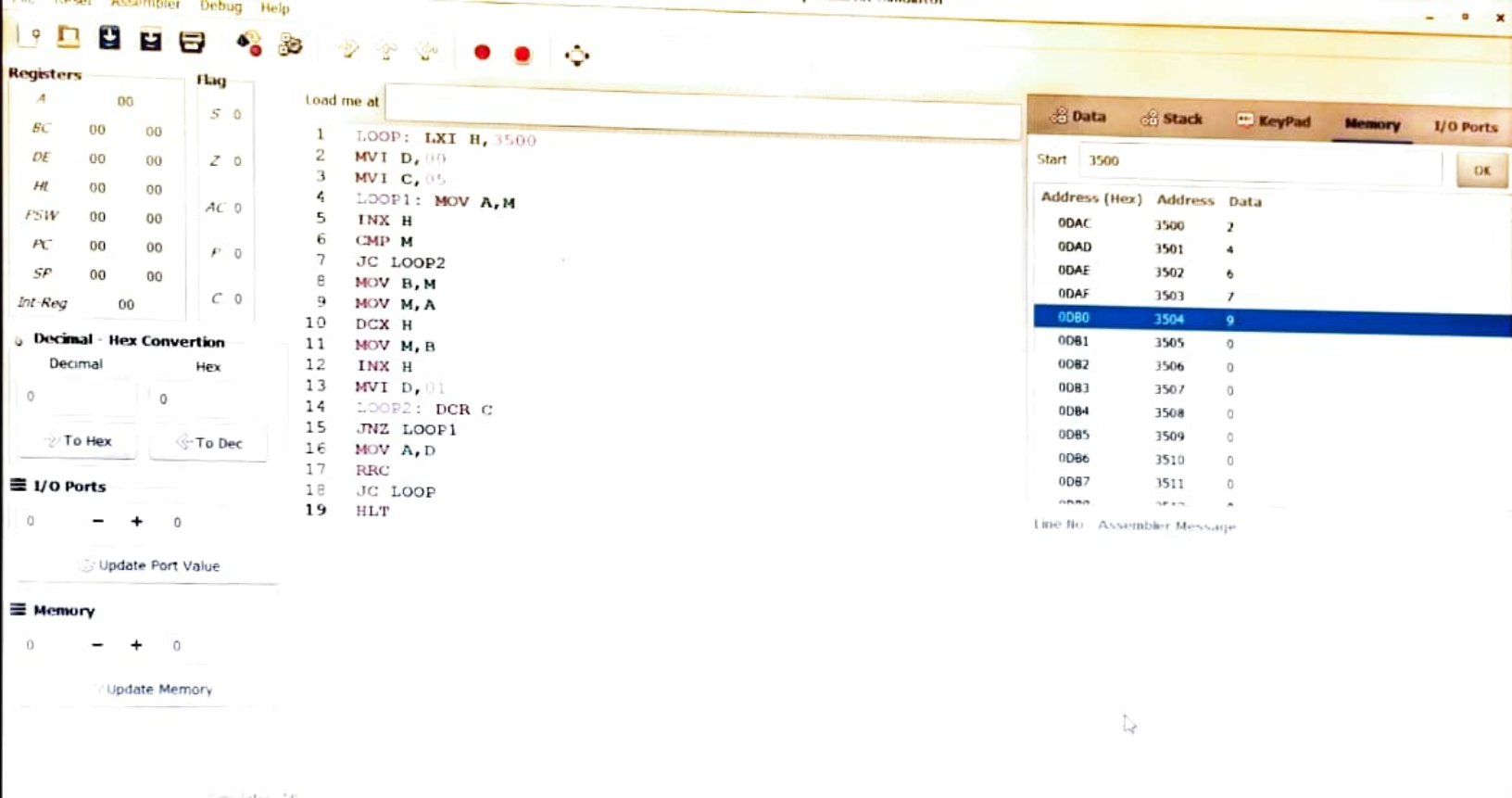
LDA 8500

MOV B,A

SUB B

STA 8502

RST 1



Registers

Flag

Load me at

```
1  LOOP: LXI H, 3500
2  MVI D, 00
3  MVI C, 05
4  LOOP1: MOV A, M
5  INX H
6  CMP M
7  JC LOOP2
8  MOV B, M
9  MOV M, A
10 DCX H
11 MOV M, B
12 INX H
13 MVI D, 01
14 LOOP2: DCR C
15 JNZ LOOP1
16 MOV A, D
17 RRC
18 JC LOOP
19 HLT
```

Decimal - Hex Conversion

Decimal

Hex

0

0

To Hex

To Dec

I/O Ports

0

-

+

0

Update Port Value

Memory

0

-

+

0

Update Memory

Data

Stack

KeyPad

Memory

I/O Ports

Start 3500

OK

Address (Hex) Address Data

00AC 3500 2

00AD 3501 4

00AE 3502 6

00AF 3503 7

00B0 3504 9

00B1 3505 0

00B2 3506 0

00B3 3507 0

00B4 3508 0

00B5 3509 0

00B6 3510 0

00B7 3511 0

Line 10 Assembler Message

Load me at

```
1 LDA 8500
2 MOV B,A
3 LDA 8501
4 ADD B
5 STA 8503
6 RST 1
```

I

Data

Stack

KeyPad

Memory

I/O Ports

Start 8500

OK

Address (Hex)	Address	Data
2134	8500	8
2135	8501	6
2136	8502	0
2137	8503	14
2138	8504	0
2139	8505	0
213A	8506	0
213B	8507	0
213C	8508	0
213D	8509	0
213E	8510	0
213F	8511	0

Line No Assembler Message

0 Program assembled successfully

File Reset Assembler Debug Help



Registers

A	02
BC	03 00
DE	00 00
HL	00 00
PSW	00 00
PC	42 09
SP	FF FF
Int-Reg	00

Flag

S	0
Z	0
AC	0
P	0
C	0

Load me at

```

1 MVI A, 1
2 MVI B, 1
3 XRA B
4 STA 2000
5 HLT

```

Decimal - Hex Conversion

Decimal

Hex

0

0

To Hex

To Dec

I/O Ports

0

-

+

00

Update Port Value

Memory

0

-

+

00

Update Memory

Data

Stack

KeyPad

Memory

I/O Ports

Start 2000

OK

Address (Hex)	Address	Data
0700	2000	2
0701	2001	0
0702	2002	0
0703	2003	0
0704	2004	0
0705	2005	0
0706	2006	0
0707	2007	0
0708	2008	0
0709	2009	0
070A	2010	0
070B	2011	0

Time to Assembler Message

0 Program assembled successfully

Register	Value	Flag
A	03	S 0
BC	03 00	Z 0
DE	00 00	AC 0
HL	00 00	P 1
PSW	00 00	C 0
PC	42 09	
SP	FF FF	
Int-Reg	00	

Load me at

- 1 MVI A, 1
- 2 MVI B, 3
- 3 ORA B
- 4 STA 2000
- 5 HLT

Decimal - Hex Conversion

Decimal:

Hex:

I/O Ports

-

Memory

-

Address

07D0	2000	0
07D1	2001	0
07D2	2002	0
07D3	2003	0
07D4	2004	0
07D5	2005	0
07D6	2006	0
07D7	2007	0
07D8	2008	0
07D9	2009	0
07DA	2010	0
07DB	2011	0

Line No	Assembler Message
0	Program assembled successfully

FileEditViewDebugHelp

Registers

A	01	
BC	03	00
DE	00	00
HL	00	00
PSW	00	00
PC	42	09
SP	FF	FF
Int-Reg	00	

Flag

S	0
Z	0
AC	1
P	0
C	0

Load me at

1

MVI A, 1

2

MVI B, 4

3

ANA B

4

STA 2000

5

HLT

Decimal - Hex Conversion

Decimal

Hex

0

0

To Hex

To Dec

I/O Ports

0

-

+

00

Update Port Value

Memory

0

-

+

00

Update Memory

Data

Stack

Keypad

Memory

I/O Ports

Start

2000

OK

Address (Hex)	Address	Data
07D0	2000	1
07D1	2001	0
07D2	2002	0
07D3	2003	0
07D4	2004	0
07D5	2005	0
07D6	2006	0
07D7	2007	0
07D8	2008	0
07D9	2009	0
07DA	2010	0
07DB	2011	0

Line No	Assembler Message
0	Program assembled successfully

Undo

Redo

Cut

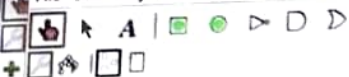
Copy

Paste

Delete

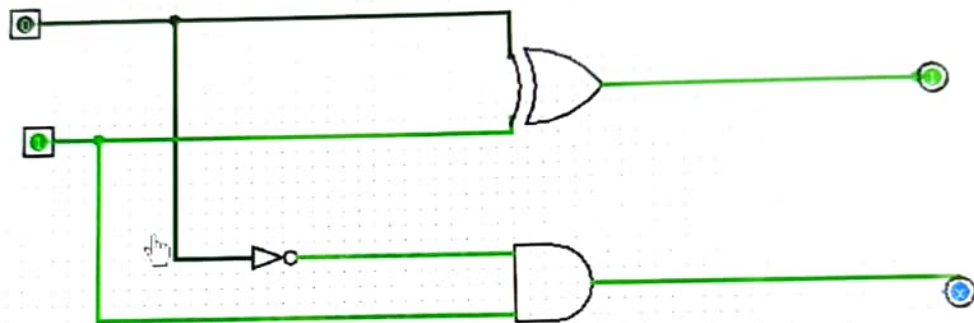
Select All

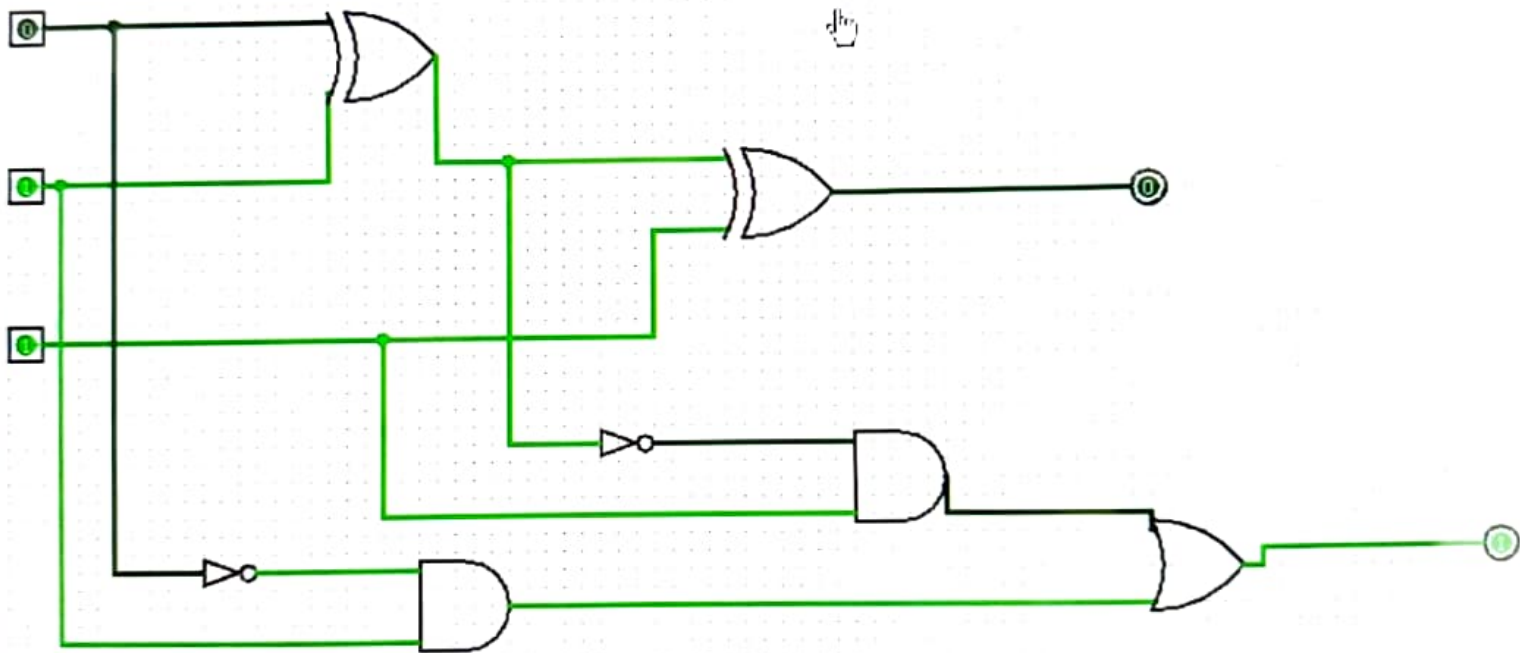
Change Case

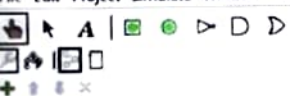


- half subtractor
- main
- Wiring
- Gates
- Plexers
- Arithmetic
- Memory
- Input/Output
- Base

Pin	
Facing	East
Output?	No
Data Bits	1
Three-state?	No
Pull Behavior	Unchanged
Label	
Label Location	West
Label Font	SansSerif Plain 12







- Full adder 2
- man
- Wiring
- Gates
- Plexers
- Arithmetic
- Memory
- Input/Output
- Base

Pin	
Facing	East
Output?	No
Data Bits	1
Three-state?	No
Pull Behavior	Unchanged
Label	
Label Location	West
Label Font	SansSerif Plain 12

