Task No. 1: Take any integer as input, if the number is greater than 5 print it

If a>5, print a

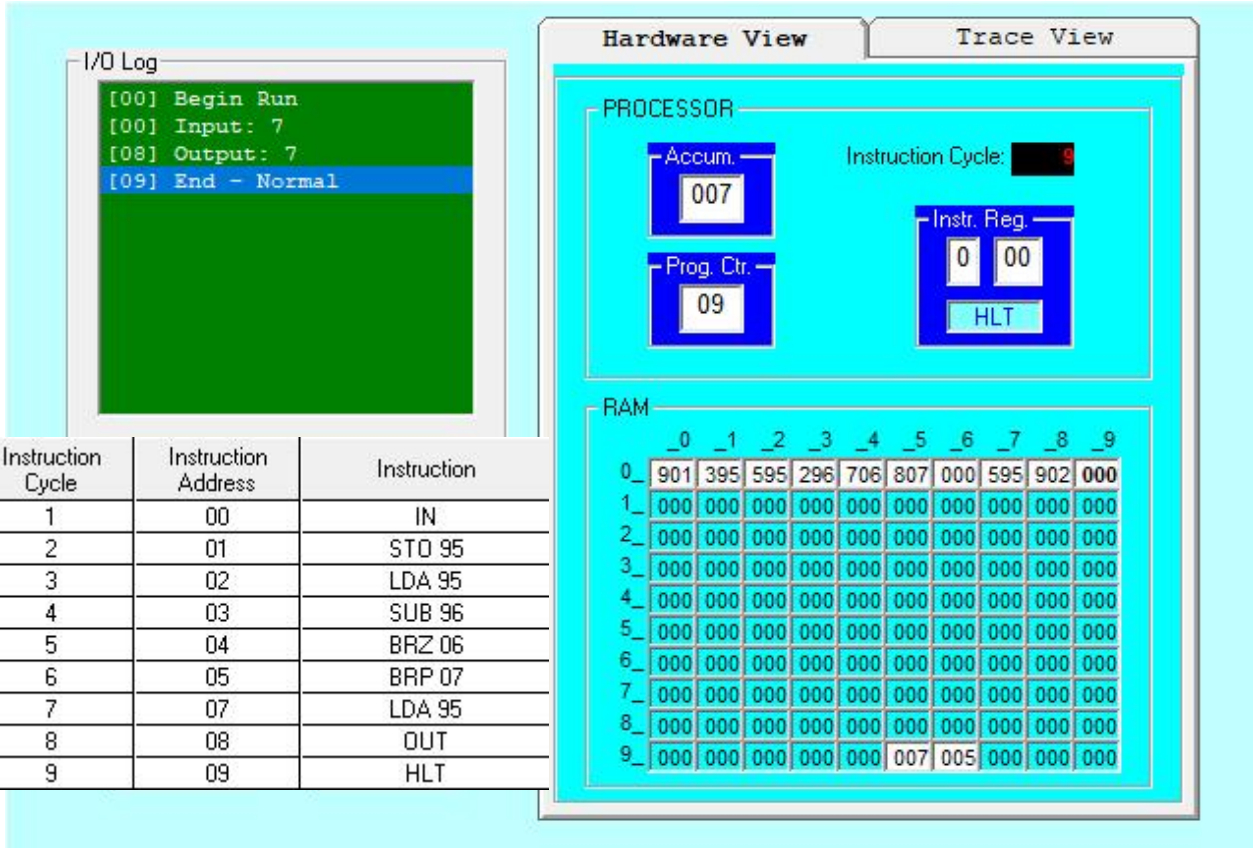
Else if a=0,then Halt

Else if a<5,then halt

Solution:

```
in
sto 95
lda 95
sub 96
brz 06
brp 07
hlt
lda 95
out
hlt
*96
dat 005
```

Output:



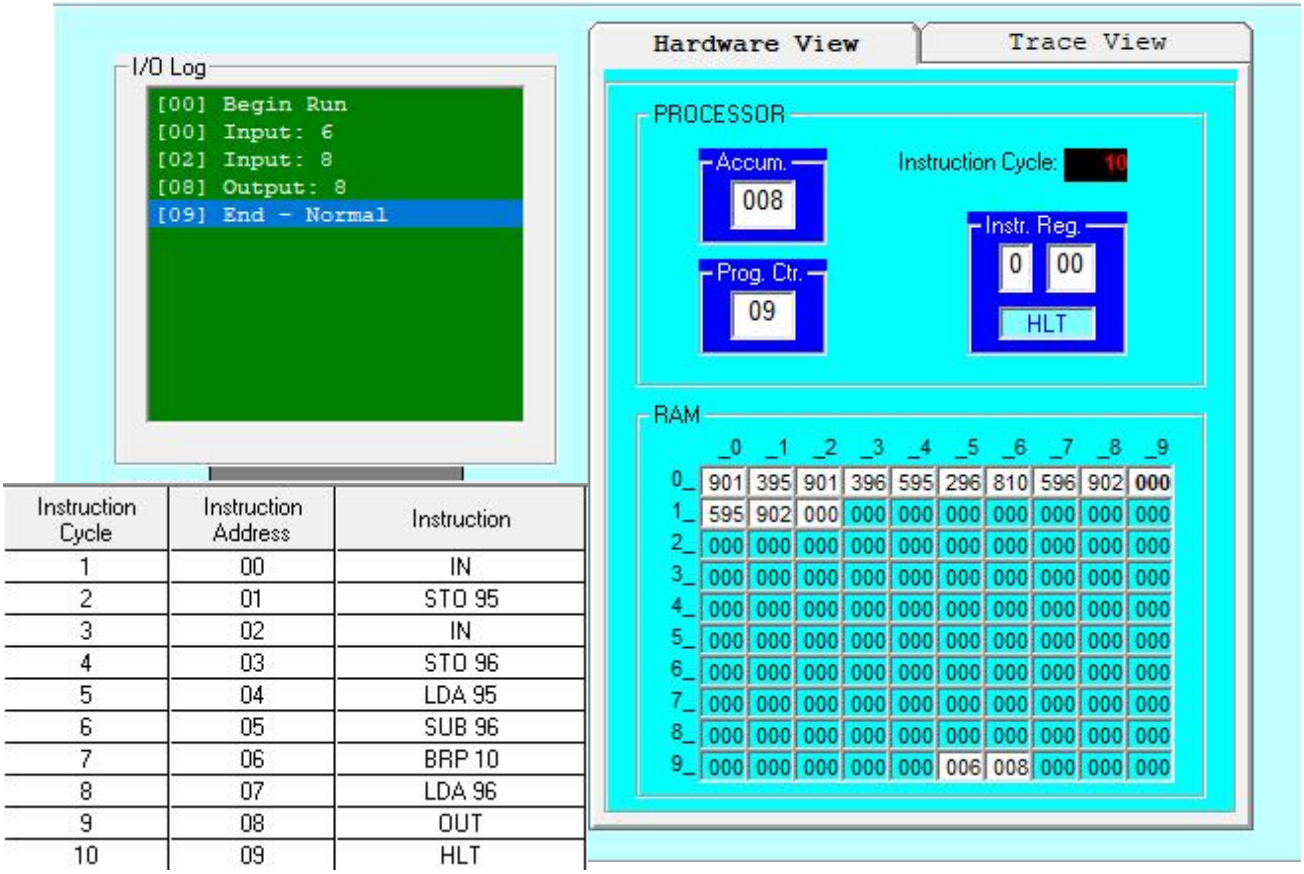
Instruction Cycle	Instruction Address	Instruction
1	00	IN
2	01	STO 95
3	02	LDA 95
4	03	SUB 96
5	04	BRZ 06
6	05	BRP 07
7	07	LDA 95
8	08	OUT
9	09	HLT

Task No. 2: Take two input from user and print the largest number.

Solution:

```
in
sto 95
in
sto 96
lda 95
sub 96
brp 10
lda 96
out 96
hlt
lda 95
out 95
hlt
```

Output:



Instruction Cycle	Instruction Address	Instruction
1	00	IN
2	01	STO 95
3	02	IN
4	03	STO 96
5	04	LDA 95
6	05	SUB 96
7	06	BRP 10
8	07	LDA 96
9	08	OUT
10	09	HLT

Task No. 3: Write pseudocode for the following code:

Solution:

```
in
sto 90
in
```

```
sto 91
sub 90
brz 07
brp 10
lda 90
add 91
out
hlt
lda 91
sub 90
out
hlt
```

Output:

Input A

Input B

Subtract B-A

If (branch ==0)

{ Load A

Add A+B

Output the Result & terminate }

Else if (branch==positive number)

{ Load B

Subract B-A

Output the Result & terminate }

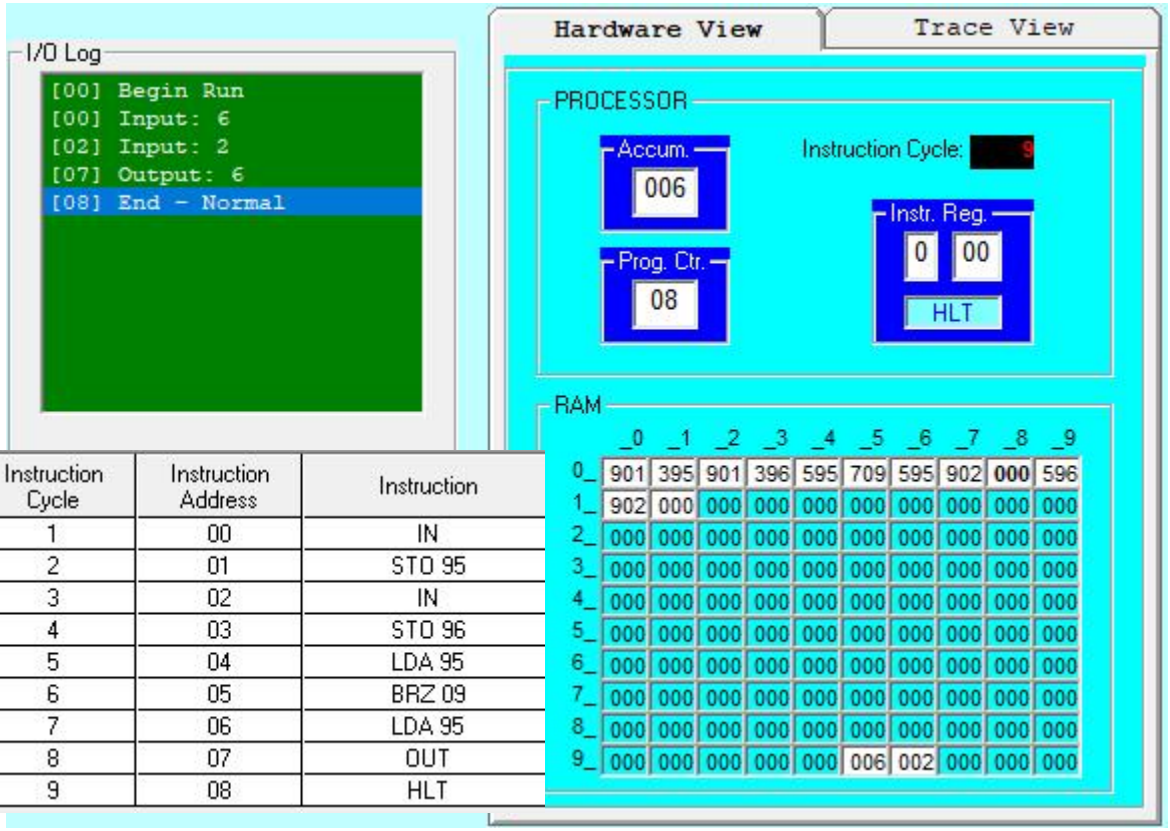
Task No. 4: Take two inputs and print the first non-zero number.

Solution:

```
in
sto 95
in
sto 96
lda 95
brz 09
lda 95
out
hlt
lda 96
out
```

```
hlt
```

Output:



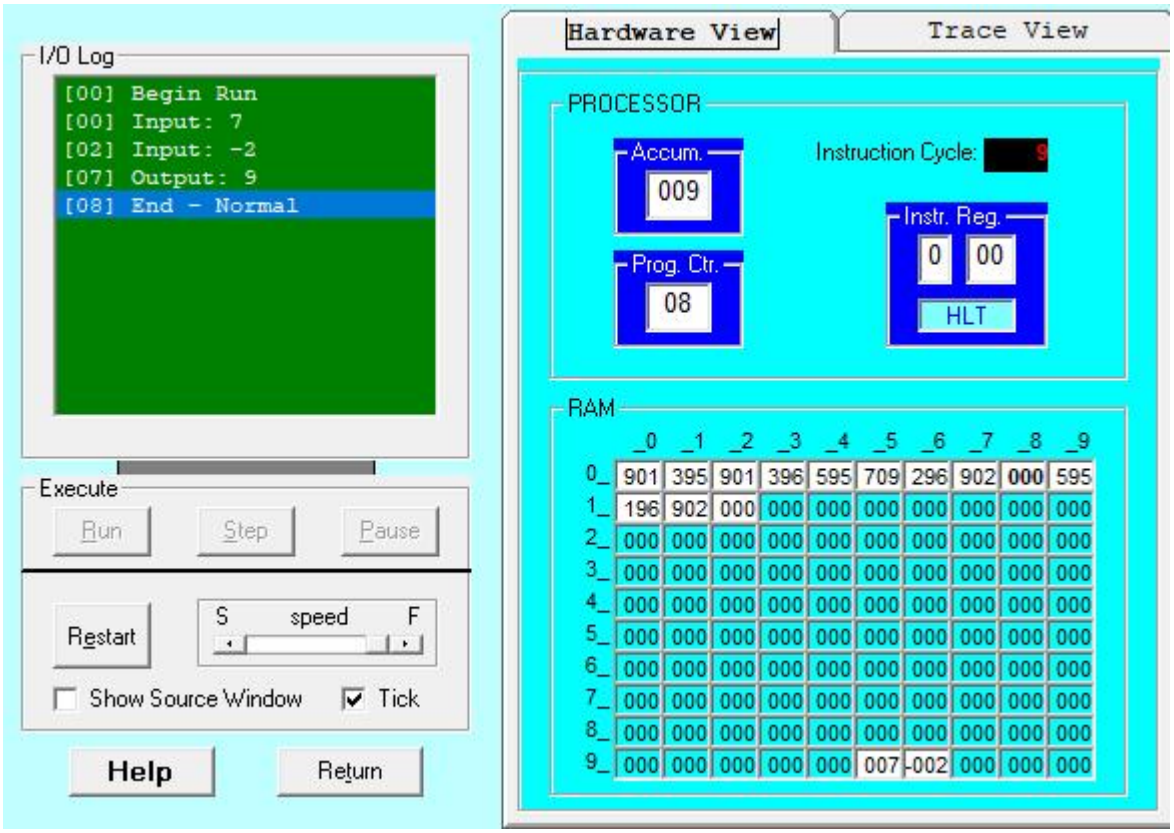
Instruction Cycle	Instruction Address	Instruction
1	00	IN
2	01	STO 95
3	02	IN
4	03	STO 96
5	04	LDA 95
6	05	BRZ 09
7	06	LDA 95
8	07	OUT
9	08	HLT

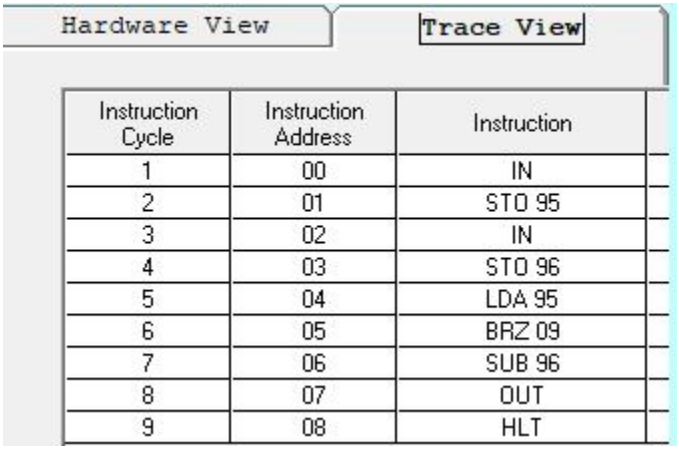
Task No. 5: Take two inputs and subtract them if a≠0 else add them.

Solution:

```
in
sto 95
in
sto 96
lda 95
brz 09
sub 96
out
hlt
lda 95
add 96
out
hlt
```

Output:





Instruction Cycle	Instruction Address	Instruction
1	00	IN
2	01	STO 95
3	02	IN
4	03	STO 96
5	04	LDA 95
6	05	BRZ 09
7	06	SUB 96
8	07	OUT
9	08	HLT