Program 9: Add two 8-bit numbers.

Program:

Flowchart:

Instructions	Comments
include "emu8086.inc"	
ORG 100h	
MOV AL, 05H	Move 1st 8-bit number to AL.
MOV BL, 03H	Move 2nd 8-bit number to BL.
ADD AL, BL	Add BL with AL.
CALL PRINT_NUM	Print the result.
RET	Return.
DEFINE_PRINT_NUM	Declare function.
END	

```
Start
  ↓
Load accumulator with the
1st 8-bit number.
  ↓
Load register BL with the
2nd 8-bit number.
  ↓
Add both the numbers.
  ↓
Print the result.
  ↓
Stop
```
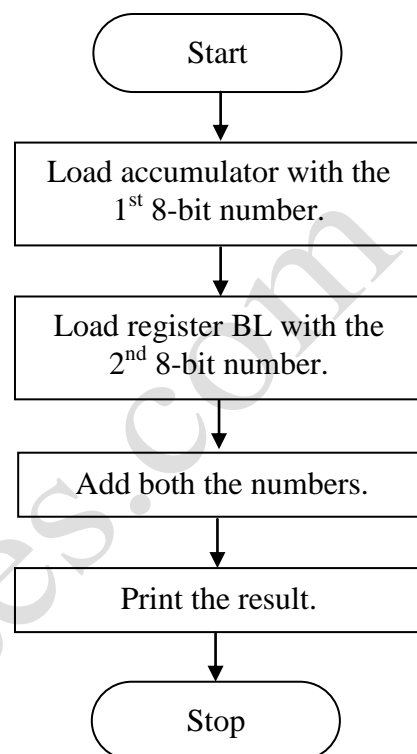
Explanation:

- This program adds two 8-bit numbers.

- The program has been developed using *emu8086* emulator available at: www.emu8086.com.

- ORG 100h is a compiler directive. It tells compiler how to handle the source code.

- It tells compiler that the executable file will be loaded at the offset of 100h (256 bytes).

- The 1st 8-bit number 05H is moved to accumulator AL.

- The 2nd 8-bit number 03H is moved to register BL.

- Then, both the numbers are added and the result is stored in AL.

- The result is printed on the screen.

Output:

Before Execution:	After Execution:
AL = 05H	AL = 08H
BL = 03H	