Program 12: Subtract two 16-bit numbers.

Program: **Flowchart:**

Instructions	Comments
include "emu8086.inc"	
ORG 100h	
MOV AX, 0005H	Move 1st 16-bit number to AX.
MOV BX, 0003H	Move 2nd 16-bit number to BX.
SUB AX, BX	Subtract BX from AX.
CALL PRINT_NUM	Print the result.
RET	Return.
DEFINE_PRINT_NUM	Declare function.
END	

Start

Load accumulator with the 1st 16-bit number.

Load register BX with the 2nd 16-bit number.

Subtract both the numbers.

Print the result.

Stop
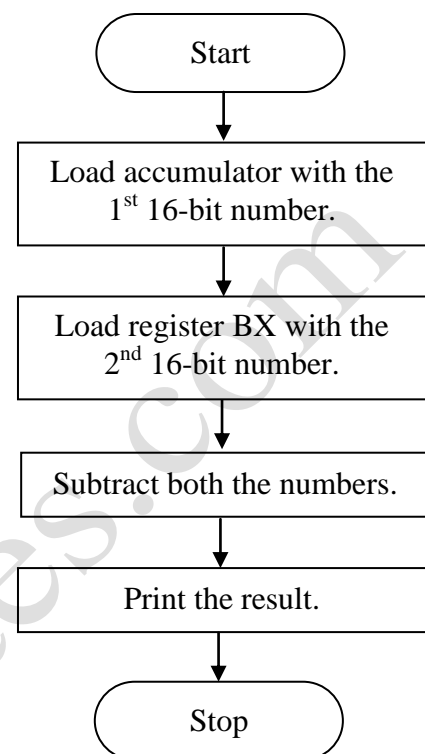
Explanation:

- This program subtracts two 16-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 16-bit number 0005H is moved to accumulator AX.

- The 2nd 16-bit number 0003H is moved to register BX.

- Then, both the numbers are subtracted and the result is stored in AX.

- The result is printed on the screen.

Output:

Before Execution:	After Execution:
AX = 0005H	AX = 0002H
BX = 0003H	