

Addition Test (Opcode 000):

Input A = 3, B = 1 → Result = 4 (0100),  
CarryOut = 0.

Subtraction Test (Opcode 001):

Input A = 4, B = 2 → Result = 2 (0010),  
CarryOut = 0.

AND Test (Opcode 010):

Input A = 12 (1100), B = 10 (1010) → Result  
= 8 (1000).

OR Test (Opcode 011):

Input A = 12 (1100), B = 3 (0011) → Result =  
15 (1111).

NOT Test (Opcode 100):

Input A = 10 (1010) → Result = 5 (0101).

