#include <stdio.h>

#include <stdlib.h>

// Function prototypes for Boolean operations

int AND(int a, int b);

int OR(int a, int b);

int NOT(int a);

int main() {

int a, b;

// Input values for the Boolean operations

printf("Enter first Boolean value (0 or 1): ");

scanf("%d", &a);

printf("Enter second Boolean value (0 or 1): ");

scanf("%d", &b);

// Check for valid input

if ((a != 0 && a != 1) || (b != 0 && b != 1)) {

printf("Invalid input. Please enter 0 or 1.\n");

return 1;

}

// Display results of Boolean operations

printf("AND(%d, %d) = %d\n", a, b, AND(a, b));

printf("OR(%d, %d) = %d\n", a, b, OR(a, b));

printf("NOT(%d) = %d\n", a, NOT(a));

printf("NOT(%d) = %d\n", b, NOT(b));

return 0;

}

// Boolean AND operation

int AND(int a, int b) {

return a && b;

}

// Boolean OR operation

int OR(int a, int b) {

return a || b;

}

// Boolean NOT operation

int NOT(int a) {

return !a;

}