module lab5tb();

reg C0_s, C1_s;
reg[3:0] A_s, B_s;
wire [4:0] S_s;

integer i;

//the connection from the test cases to the calculator assumes the A, B and S connections are buses greatly simplifying the port connections
my_calc t1(.C0(C0_s), .C1(C1_s), .A(A_s), .B(B_s), .S(S_s));

initial begin
    /* create test cases for 5 + <-8 to 7> */
    A_s = 5;
    B_s = 0;
    C0_s = 0; C1_s = 0;

    //the FOR loop can be used to create all the test cases from -8 o 7. Notice that
    //this is accomplished by simply incrementing i from 0 to 16 since the numbers
    //are interpreted by the calculator as 2's complement numbers.
    for(i = 0; i <= 16; i = i+1)
        begin
            #10;
            B_s = i;
        end

endmodule