```
module m2_1x8_testbench();

   reg input1;
   reg [7:0] input_bus0;
   reg [7:0] input_bus1;
   wire [7:0] output_bus1;

   m2_1x8   UUT   ( .in0(input_bus0), .in1(input_bus1), .sel(input1), .o(output_bus1)

// below is the "stimuli," the values for the inputs
// be sure to select a range of inputs that will fully exercise your design

    initial
    begin

        //-------------  Current Time:  0ns
        input1 = 1'b0;
        input_bus0 = 8'b00000000;
        input_bus1 = 8'b11111111;
        #100;  //This advances time by 100 units (ns in this case)
        // -------------  Current Time:  100ns
        input1=1'b1;
        #100; // -------------  Current Time:  200ns
        input1=1'b0;
        input_bus0 = 8'b10000000;
        input_bus1 = 8'b00000001;
        #100; // -------------  Current Time:  300ns
        input1=1'b1;
        #100; // -------------  Current Time:  400ns
        input1=1'b0;
        input_bus0 = 8'b01010101;
        input_bus1 = 8'b10101010;
        #100; // -------------  Current Time:  500ns
        input1=1'b1;
    end
endmodule
```