

課題 14-3

コード

TopModule.v

```
module TopModule(  
    //////////// CLOCK ////////////  
    input                CLK1,  
    input                CLK2,  
    //////////// SEG7 ////////////  
    output [7:0]         HEX0,  
    output [7:0]         HEX1,  
    output [7:0]         HEX2,  
    output [7:0]         HEX3,  
    output [7:0]         HEX4,  
    output [7:0]         HEX5,  
    //////////// Push Button ////////////  
    input [1:0]          BTN,  
    //////////// LED ////////////  
    output [9:0]         LED,  
    //////////// SW ////////////  
    input [9:0]          SW  
  
);  
  
wire a, b, c, y;  
  
assign a = SW[3];  
assign b = SW[2];  
assign c = SW[1];  
  
my_circuit u1(a, b, c, y);  
  
assign LED = {7'h0, a, b, c, y};  
  
assign HEX0=8'hff;  
assign HEX1=8'hff;  
assign HEX2=8'hff;  
assign HEX3=8'hff;  
assign HEX4=8'hff;  
assign HEX5=8'hff;  
  
endmodule
```

MyCircuit.v

```
module my_circuit(A, B, C, Y);  
  input A, B, C;  
  output Y;  
  
  assign Y = (A & C)  
             | (A & ~B)  
             | (C & ~B)  
             | (~A & B & ~C);  
  
endmodule
```

動作確認

真理値表とおりの光り方になることを確認した