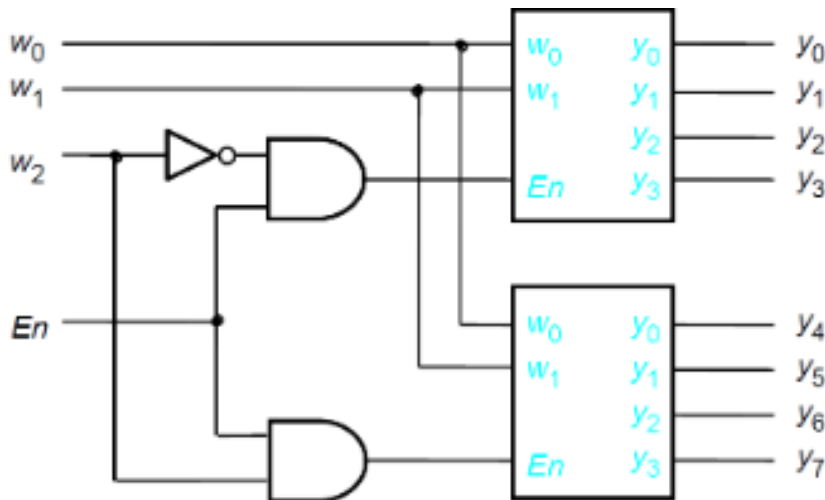


Name: _____

Registration: _____

Design a 3x8 Decoder using as building block the 2x4 Decoder shown below. Use the provided block diagram and skeleton file to implement the 3x8 Decoder.

```
module Dec2x4 (y, En, w);  
  
    output [0:3] y;  
    input En;  
    input [1:0] w;  
  
    reg [0:3] y;  
  
    always @(En or w)  
        if (En)  
            case (w)  
                2'b00: y = 4'b1000;  
                2'b01: y = 4'b0100;  
                2'b10: y = 4'b0010;  
                2'b11: y = 4'b0001;  
            endcase  
        else  
            y = 4'b0000;  
        end  
  
endmodule
```



```
module Dec3x8 (y, En, w);  
  
    output [0:7] y;  
    input En;  
    input [2:0] w;  
    //Write your code here  
  
endmodule
```