





Name		Value												160.000 ns	
> grey[3:0]	f	3	4	5	6	7	8	9	a	b	c	d	e	f	
> bin[3:0]	a	2	7	6	4	5	f	e	c	d	8	9	b	a	



```
# }
# run 1000ns
grey = 0000, bin = 0000
grey = 0001, bin = 0001
grey = 0010, bin = 0011
grey = 0011, bin = 0010
grey = 0100, bin = 0111
grey = 0101, bin = 0110
grey = 0110, bin = 0100
grey = 0111, bin = 0101
grey = 1000, bin = 1111
grey = 1001, bin = 1110
grey = 1010, bin = 1100
grey = 1011, bin = 1101
grey = 1100, bin = 1000
grey = 1101, bin = 1001
grey = 1110, bin = 1011
grey = 1111, bin = 1010
$finish called at time : 160 ns : File "/home/itzzinfinity/Cozy Drive/100daysofRTL/day_043/project_1/project_1.tcl"
INFO: [USF-XSim-96] XSim completed. Design snapshot 'tb_Grey_to_Bin_behav' loaded.
INFO: [USF-XSim-97] XSim simulation ran for 1000ns
launch_simulation: Time (s): cpu = 00:00:05 ; elapsed = 00:00:06 . Memory (MB): peak = 9071.605 ; gain = 52.1
```



```
1  `timescale 1ns / 1ps
2  //////////////////////////////////////
3  // Engineer: Anjan Prasad
4  // Create Date: 11/03/2024 04:44:46 AM
5  // Module Name: Grey_to_Bin
6  //////////////////////////////////////
7
8  /* grey to binary converters */
9  module Grey_to_Bin(
10 output [3:0] b,
11 input[3:0]g);
12   assign b[0] = g[0] ^ b[1];
13   assign b[1] = g[1] ^ b[2];
14   assign b[2] = g[2] ^ b[3];
15   assign b[3] = g[3];
16 endmodule
17
```

/home/itzzinfinity/Cozy Drive/100daysofRTL/day_043/project_1/project_1.srscs/sim_1/new/tb_Grey_to_Bin.v



```
1  `timescale 1ns / 1ps
2  ///////////////////////////////////////////////////////////////////
3  // Engineer: Anjan Prasad
4  // Create Date: 11/03/2024 04:47:48 AM
5  // Module Name: tb_Grey_to_Bin
6  ///////////////////////////////////////////////////////////////////
7
8
9  module tb_Grey_to_Bin;
10     reg [3:0] grey;
11     wire [3:0] bin;
12     Grey_to_Bin uut (.g(grey),.b(bin));
13     initial begin
14         $monitor("grey = %b, bin = %b", grey, bin);
15         grey = 4'b0000; #10;
16         grey = 4'b0001; #10;
17         grey = 4'b0010; #10;
18         grey = 4'b0011; #10;
19         grey = 4'b0100; #10;
20         grey = 4'b0101; #10;
21         grey = 4'b0110; #10;
22         grey = 4'b0111; #10;
23         grey = 4'b1000; #10;
24         grey = 4'b1001; #10;
25         grey = 4'b1010; #10;
26         grey = 4'b1011; #10;
27         grey = 4'b1100; #10;
28         grey = 4'b1101; #10;
29         grey = 4'b1110; #10;
30         grey = 4'b1111; #10;
31
32     $finish;
33     end
34 endmodule
35
36
```