

```
1  module UPC(discounted, stolen, u, p, c, m);
2      output logic discounted, stolen;
3      input logic u, p, c, m;
4
5      assign discounted = (u&p)|(p&c)|(u&c);
6      assign stolen = (~p&~c&~m)|(u&~p&~m);
7  endmodule
8
9  module UPC_testbench();
10     logic u, p, c, m;
11     logic discounted, stolen;
12
13     UPC dut(.discounted, .stolen, .u, .p, .c, .m);
14
15     integer i;
16     initial begin
17         for (i = 0; i < 14; i++) begin
18             {u, p, c, m} = i; #10;
19         end
20     end
21 endmodule
```