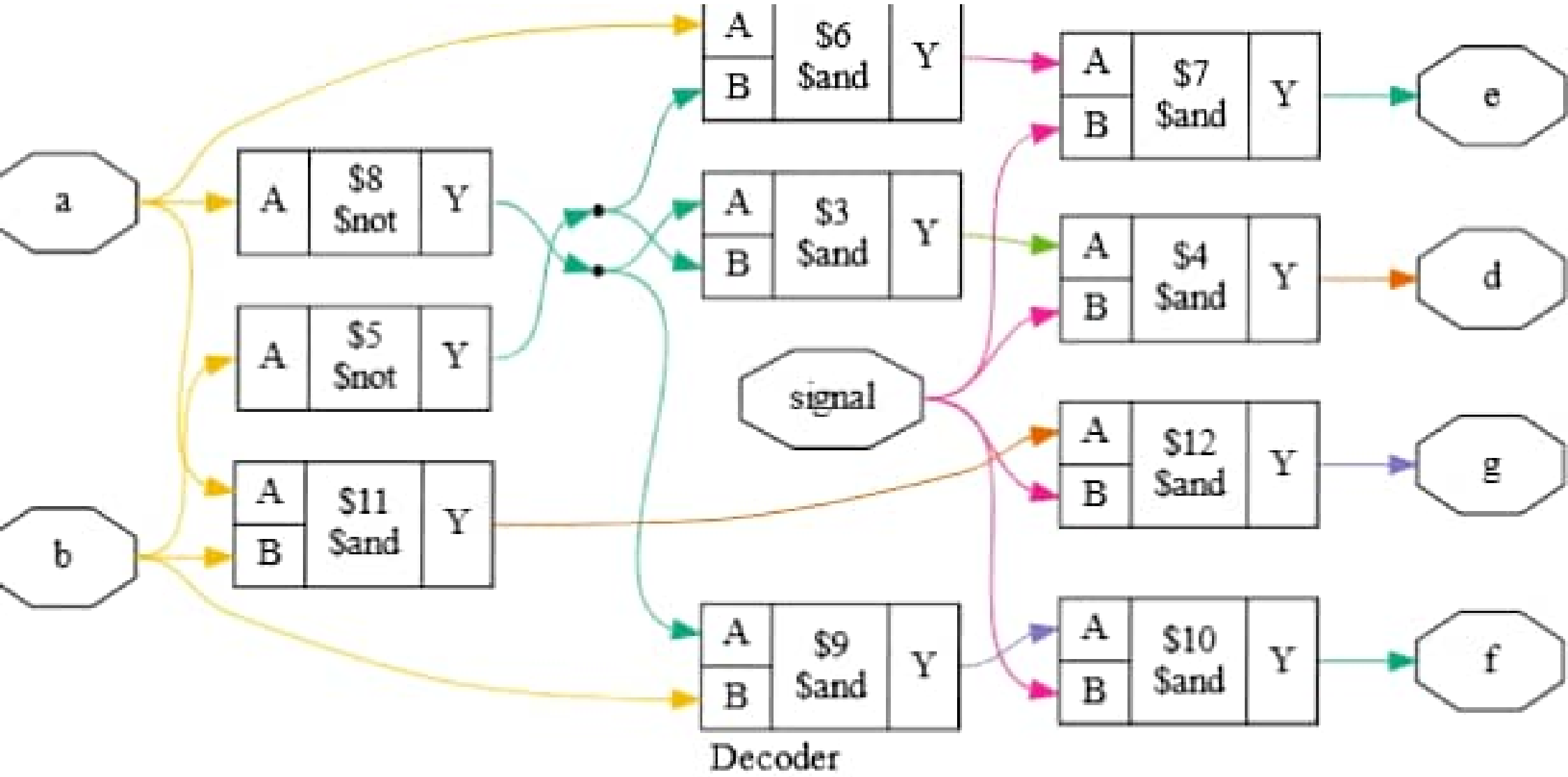
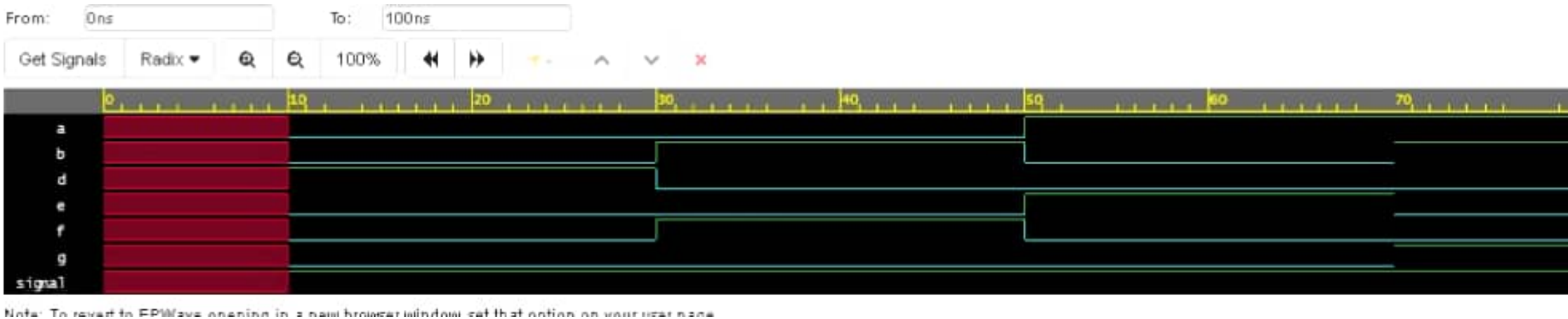
```
1  // Code your design here
2  //Design module
3  module Decoder(input wire a,
4                 input wire b,
5                 input wire signal,
6                 output wire d,
7                 output wire e,
8                 output wire f,
9                 output wire g);
10
11
12     assign d = (~a) & (~b) & signal;
13     assign e = (a) & (~b) & signal;
14     assign f = (~a) & (b) & signal;
15     assign g = (a) & (b) & signal;
16
17
18 endmodule
```

```
// Code your testbench here
// or browse Examples
//test bench

module dec_tb();
  reg a,b,signal;
  wire d,e,f,g;

  Decoder dec(.a(a),
              .b(b),
              .signal(signal),
              .d(d),
              .e(e),
              .f(f),
              .g(g)
             );

  initial
    begin

      #10
      a=1'b0; b=1'b0; signal= 1'b1;
      #20
      a=1'b0; b=1'b1; signal= 1'b1;
      #20
      a=1'b1; b=1'b0; signal= 1'b1;
      #20
      a=1'b1; b=1'b1; signal= 1'b1;
//         #10
    end

  initial
    begin
      $dumpfile("dump.vcd");
      $dumpvars();
      #100
 $finish;
end
endmodule
```





Note: To revert to EPWave opening in a new browser window, set that option on your user page.