Introduction to Digital Logic

- More VHDL

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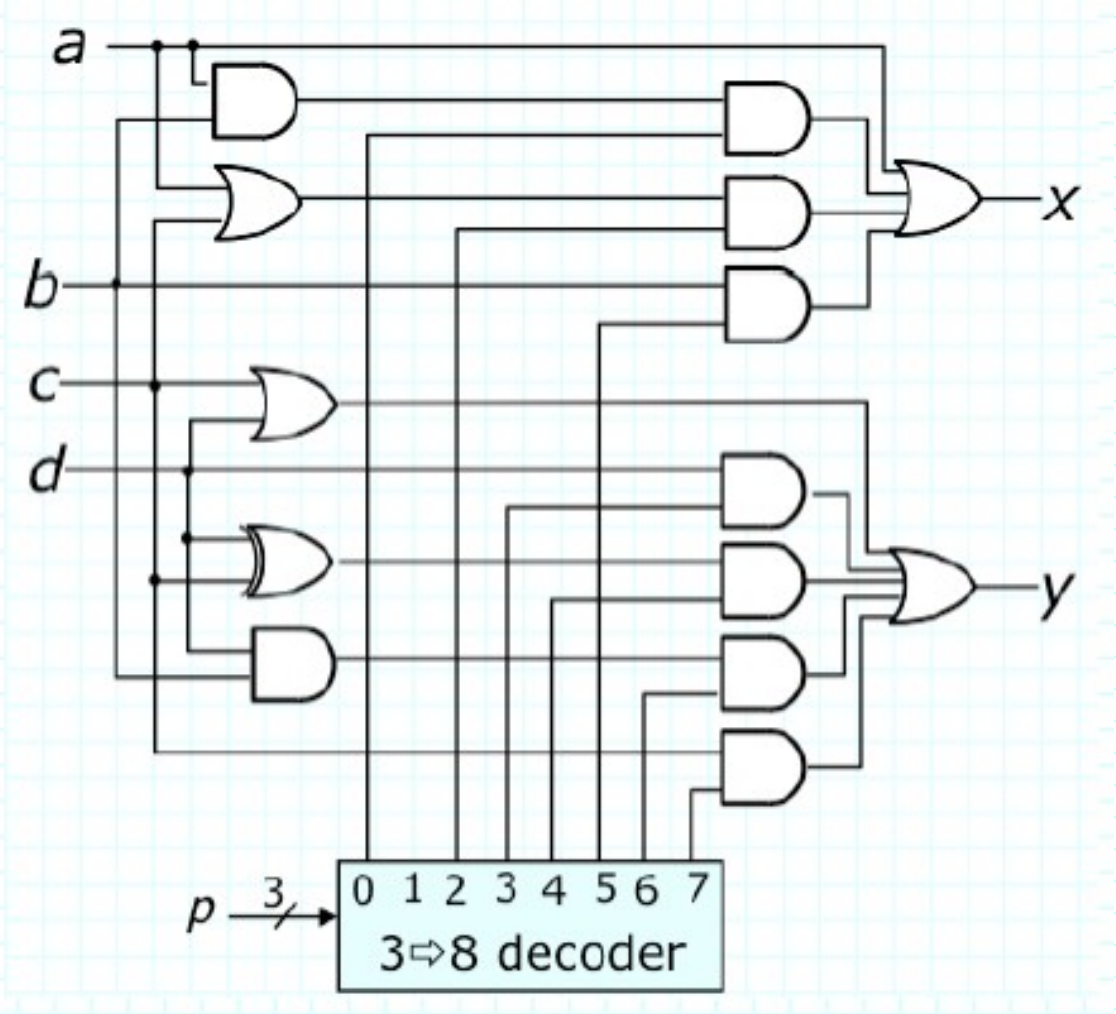
Review Questions

- What is a lookup table?
- What is a configurable logic block?
- How many lookup tables would it take to implement an 8 input mux?
- How many lookup tables would it take to implement a circuit with 12 inputs and 1 output?
- How many lookup tables would it take to implement

  (A+ B+C+D+E)(F+G+H+I+J)(K+L)

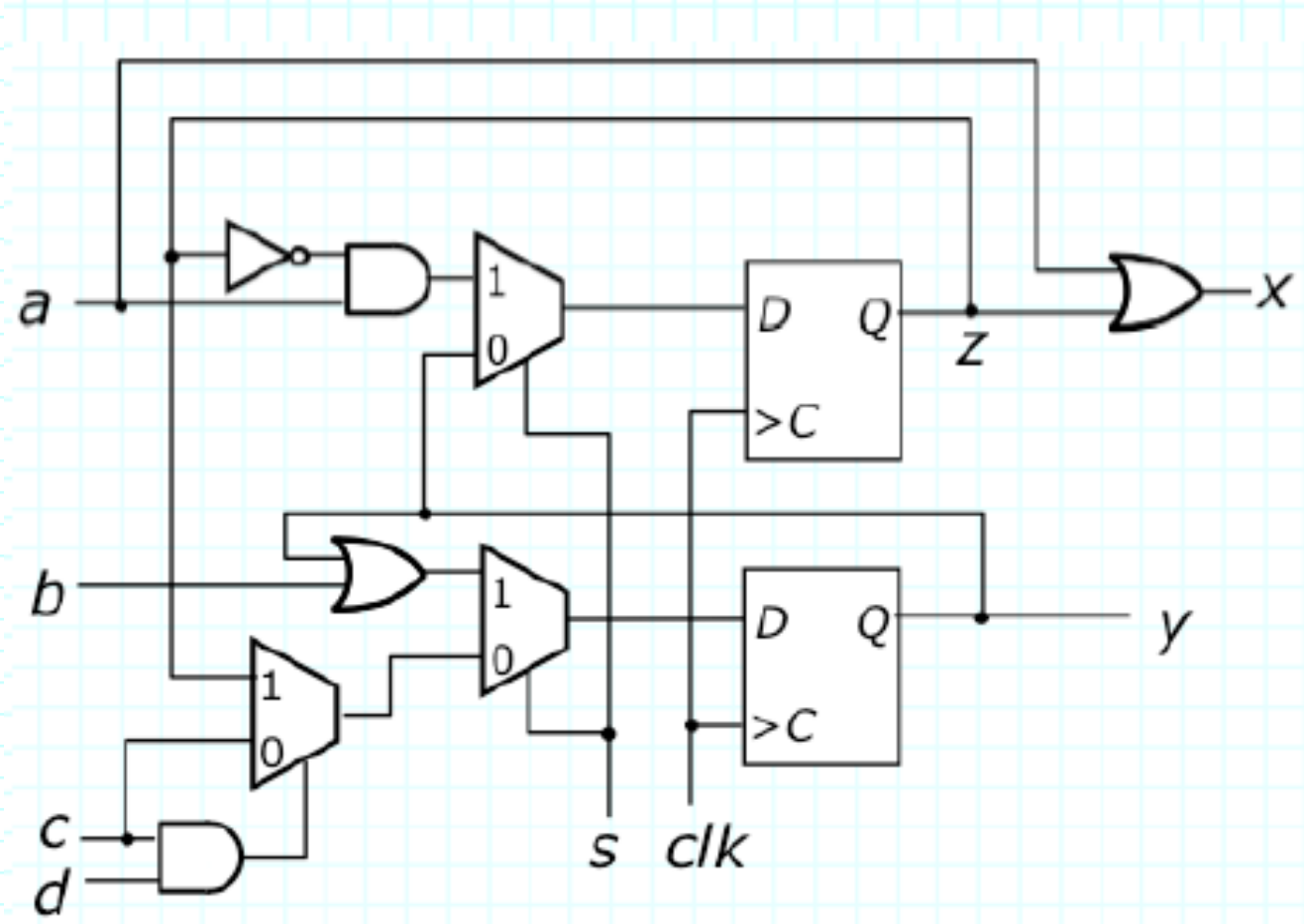
Review Questions

- Write VHDL that would implement the following circuit. Use a process with case/when.



Review Questions

- Write VHDL that would implement the following circuit. Use a process.



Review Questions

In the VHDL code segment shown below, determine the value assigned to each of the signals x and y on the next clock tick assuming that their initial values are x"4" and x"7".

```
if rising_edge(clk) then
    a := x + y;
    x <= a + x"1";
    y <= a + x;
    a := y - x"3";
    x <= a + x"2";
end if;
```

Garage Door FSM Demo

