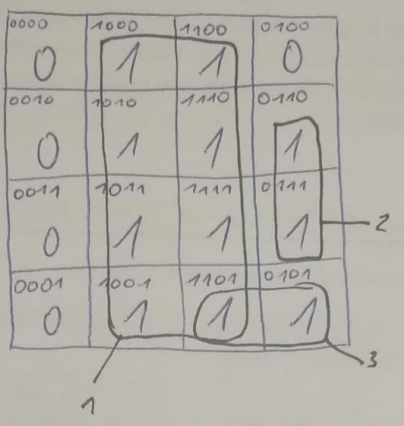
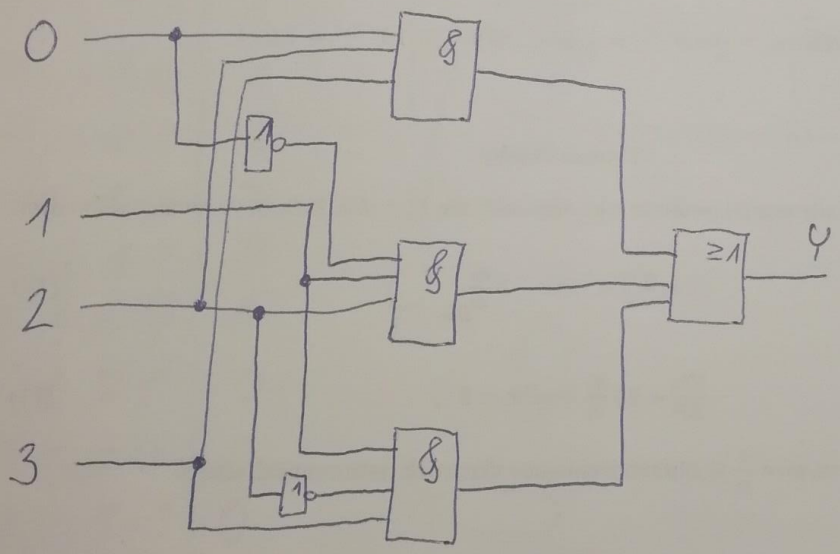
(1)

	a	b	c	d	Y
0	0	0	0	0	0
1	0	0	0	1	0
2	0	0	1	0	0
3	0	0	1	1	0
4	0	1	0	0	0
5	0	1	0	1	1
	0	1	1	0	1
	0	1	1	1	1
	1	0	0	0	1
	1	0	0	1	1
	1	0	1	0	1
	1	0	1	1	1
	1	1	0	0	1
	1	1	0	1	1
	1	1	1	0	1
	1	1	1	1	1



$$Y = a \cdot c \cdot d + \bar{a} \cdot b \cdot c + b \cdot \bar{c} \cdot d$$



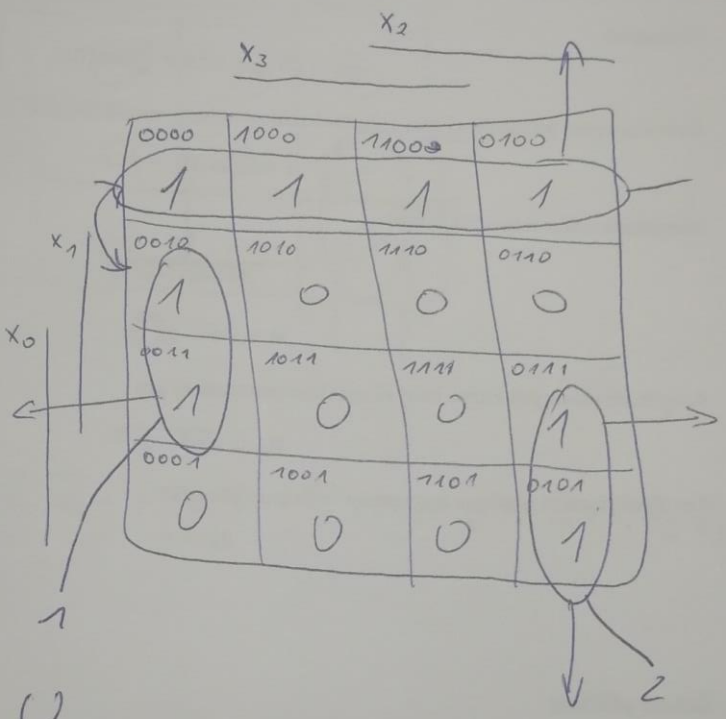
MINIMÁLNÍ POČET HRADEL = 4.

② $g(x_3, x_2, x_1, x_0) = \overline{x_3} \cdot (\overline{x_2} \cdot x_1 + x_1 \cdot x_0) + (\overline{x_1 + x_0})$

$\left(\overline{x_3} \cdot \overline{x_2} \cdot x_1 + \overline{x_3} \cdot x_2 \cdot x_0\right) + \left(\overline{x_1 + x_0}\right)$

$\overline{x_1 + x_0} = \overline{x_1} \cdot \overline{x_0}$

x_3	x_2	x_1	x_0	
0	0	0	0	1
0	0	0	1	0
0	0	1	0	1
0	0	1	1	1
0	1	0	0	1
0	1	0	1	1
0	1	1	0	0
0	1	1	1	1
1	0	0	0	1
1	0	0	1	0
1	0	1	0	0
1	0	1	1	0
1	1	0	0	1
1	1	0	1	0
1	1	1	0	0
1	1	1	1	0

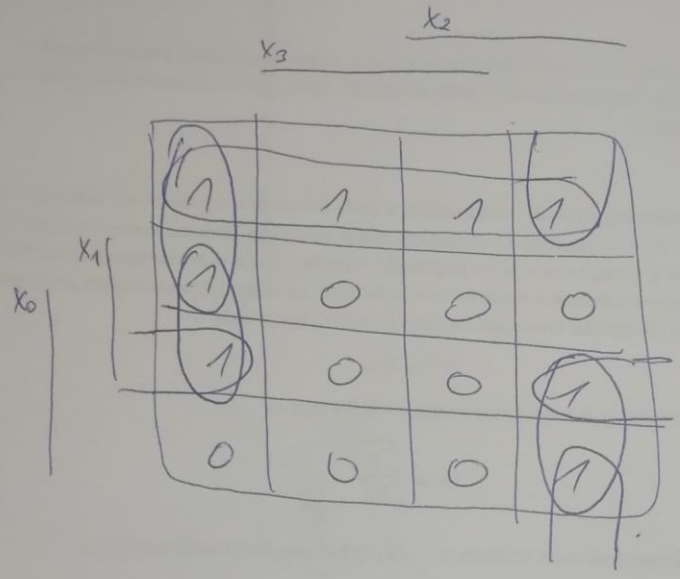


$\varphi =$ 0

$\supset$ $\subset$ $\cup$ $\cap$

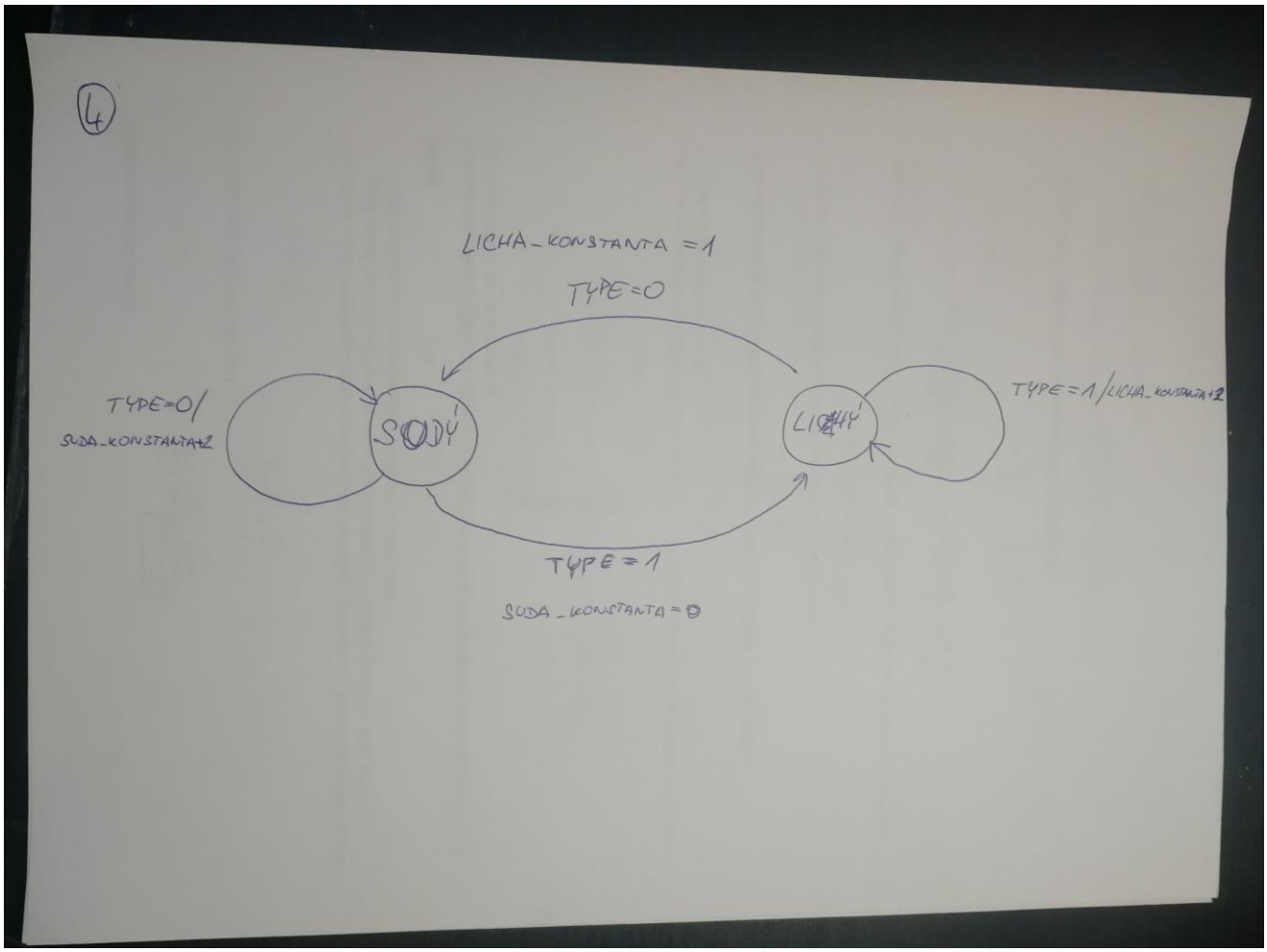
SOUSEDÍCÍ STAVY V KM, TZN. JE ZDE HAZARD.

(2)



5

$$Y = \cancel{\bar{x}_3 \cdot \bar{x}_2 \cdot \bar{x}_1} \cdot \bar{x}_1 \cdot \bar{x}_0 + \bar{x}_3 \cdot \bar{x}_2 \cdot \bar{x}_0 + x_1 \cdot x_0 \cdot \bar{x}_3 + \bar{x}_3 \cdot x_2 \cdot x_0 + \bar{x}_3 \cdot x_2 \cdot \bar{x}_1 + x_1 \cdot \bar{x}_2 \cdot \bar{x}_3$$


4
LICHA_KONSTANTA = 1
TYPE=0
TYPE=0/
SUDA_KONSTANTA+2
SUDÝ
LICHÝ
TYPE=1/LICHA_KONSTANTA+2
TYPE=1
SUDA_KONSTANTA=0

(5)

```
entity gen_pulse is
    port (clk, reset_n : in std_logic;
          data_o       : out std_logic);     --výstupní pulzy
end entity;

architecture FULL of gen_pulse is
    signal count : unsigned (4 downto 0);
begin
    process (clk)
        if (rising_edge (clk)) then
            if (reset_n = '0') then
                count := (others => '0');
                data_o = '0';
            elsif (count >= 0 and count <= 25) then
                count := count + 1;
                data_o <= '1';
            else
                count := count + 1;
                data_o <= '0';
            end if;
        end if;
end process;
end Behavioral;
```