

0 → 0 0 ; 1 → 1 1 ; 2 → 0 1 ; 3 → 1 0

$a_1 a_0$	$b_1 b_0$	c_{in}	c_{out}	A	B	c_{out}	R	c_{out}	$\Gamma_1 \Gamma_0$
0 0	0 0	0	0	0	0	0	0	0	0 0
0 0	0 0	1	1	0	0	0	1	0	1 1
0 0	0 1	0	0	0	2	0	2	0	0 1
0 0	0 1	1	1	0	2	0	3	0	1 0
0 0	1 0	0	0	0	3	0	3	0	1 0
0 0	1 0	1	1	0	3	1	0	1	0 0
0 0	1 1	0	0	0	1	0	1	0	1 1
0 0	1 1	1	1	0	1	0	2	0	0 1
0 1	0 0	0	0	2	0	0	2	0	0 1
0 1	0 0	1	1	2	0	0	3	0	1 0
0 1	0 1	0	0	2	2	1	0	1	0 0
0 1	0 1	1	1	2	2	1	1	1	1 1
0 1	1 0	0	0	2	3	1	1	1	1 1
0 1	1 0	1	1	2	3	1	2	1	0 1
0 1	1 1	0	0	2	1	0	3	0	1 0
0 1	1 1	1	1	2	1	1	0	1	0 0
1 0	0 0	0	0	3	0	0	3	0	1 0
1 0	0 0	1	1	3	0	1	0	1	0 0
1 0	0 1	0	0	3	2	1	1	1	1 1
1 0	0 1	1	1	3	2	1	2	1	0 1
1 0	1 0	0	0	3	3	1	2	1	0 1
1 0	1 0	1	1	3	3	1	3	1	1 0
1 0	1 1	0	0	3	1	1	0	1	0 0
1 0	1 1	1	1	3	1	1	1	1	1 1
1 1	0 0	0	0	1	0	0	1	0	1 1
1 1	0 0	1	1	1	0	0	2	0	0 1
1 1	0 1	0	0	1	2	0	3	0	1 0
1 1	0 1	1	1	1	2	1	0	1	0 0
1 1	1 0	0	0	1	3	1	0	1	0 0
1 1	1 0	1	1	1	3	1	1	1	1 1
1 1	1 1	0	0	1	1	0	2	0	0 1
1 1	1 1	1	1	1	1	0	3	0	1 0

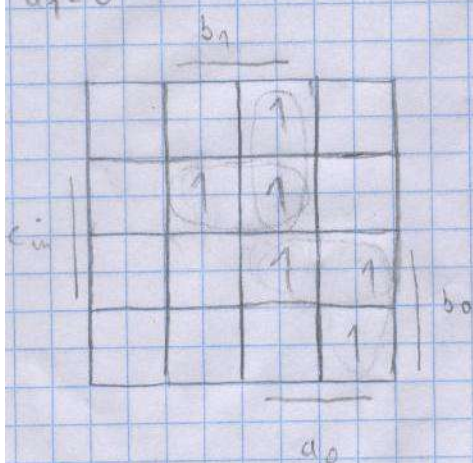
$$c_{out} = \sum m(5, 10, 11, 12, 13, 15, 17, 18, 19, 20, 21, 22, 23, 24, 28, 29)$$

$$\Gamma_1 = \sum m(1, 3, 4, 6, 9, 11, 12, 17, 18, 29, 23, 24, 26, 29, 31)$$

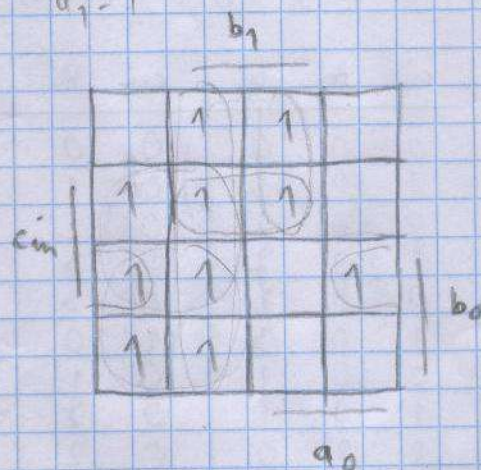
$$\Gamma_0 = \sum m(1, 2, 6, 7, 8, 11, 12, 13, 18, 19, 20, 23, 24, 25, 29, 30)$$

cout

$a_1 = 0$



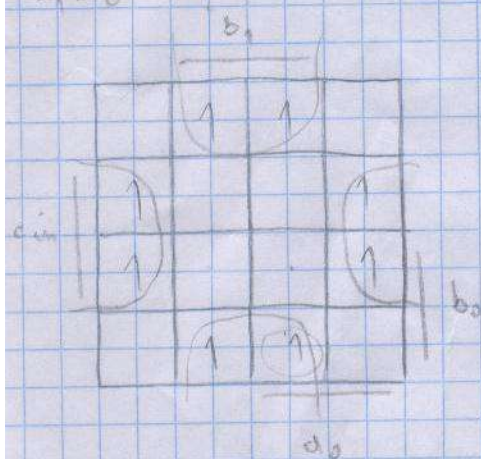
$a_1 = 1$



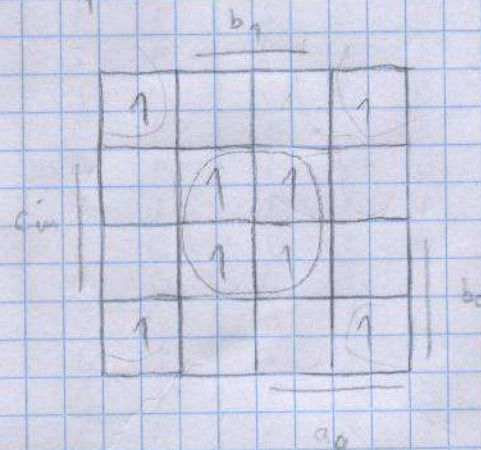
$$cout = a_0 b_1 \bar{b}_0 + b_1 b_0 c_{in} + \bar{a}_1 a_0 b_0 c_{in} + \bar{a}_1 a_0 \bar{b}_1 b_0 + a_1 \bar{a}_0 b_1 + a_1 \bar{a}_0 b_0 + a_1 \bar{a}_0 c_{in} + a_1 \bar{b}_1 b_0 c_{in}$$

g1

$a_1 = 0$



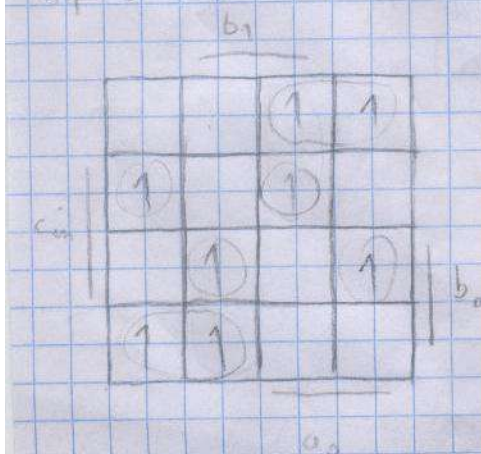
$a_1 = 1$



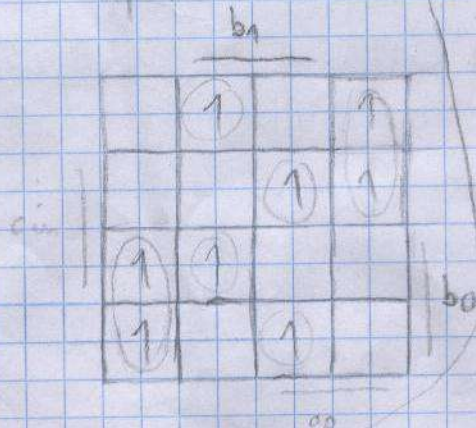
$$g_1 = \bar{a}_1 b_1 c_{in} + \bar{a}_1 \bar{b}_1 c_{in} + a_1 b_1 c_{in} + a_1 \bar{b}_1 c_{in}$$

g0

$a_1 = 0$



$a_1 = 1$



$$g_0 = \bar{a}_1 \bar{a}_0 \bar{b}_1 b_0 c_{in} + \bar{a}_1 \bar{a}_0 b_0 c_{in} + \bar{a}_0 b_1 b_0 c_{in} + a_0 b_1 \bar{b}_0 c_{in} + \bar{a}_1 a_0 \bar{b}_0 c_{in} + \bar{a}_1 a_0 b_1 b_0 c_{in} + a_1 \bar{a}_0 \bar{b}_1 b_0 + a_1 \bar{a}_0 b_1 \bar{b}_0 c_{in} + a_1 a_0 b_1 b_0 c_{in} + a_1 a_0 \bar{b}_1 b_0$$

(2-1)-KOMPLEMENT

x_1	x_0	x	y	y_1	y_0
0	0	0	3	1	0
0	1	2	1	1	1
1	0	3	0	0	0
1	1	1	2	0	1

$$y_1 = \overline{x_1}$$

$$y_0 = x_0$$

DVOSTRUKI MULTIPLEKSOR

$$S=0 \rightarrow z_1=x_1; z_0=x_0$$

$$S=1 \rightarrow z_1=y_1; z_0=y_0$$

$$z_1 = \overline{S}x_1 + Sy_1$$

$$z_0 = \overline{S}x_0 + Sy_0$$

2.6. PROJEKCIJA DADA SLOGA

$$\begin{array}{l} \text{OP}=0; \quad a = \begin{array}{c|c|c|c} 1 & 1 & 0 & 0 \\ \hline 1 & 3 & 2 & 0 \end{array} + b = \begin{array}{c|c|c|c} 0 & 1 & 0 & 0 \\ \hline 2 & 0 & 0 & 3 \end{array} \quad r = \begin{array}{c|c|c|c} 1 & 0 & 0 & 1 \\ \hline 3 & 3 & 2 & 3 \end{array} \quad \text{Cout} = 0 \end{array}$$

$$\begin{array}{l} \text{OP}=0; \quad a = \begin{array}{c|c|c|c} 1 & 1 & 0 & 0 \\ \hline 1 & 3 & 2 & 0 \end{array} + b = \begin{array}{c|c|c|c} 0 & 1 & 0 & 0 \\ \hline 2 & 0 & 3 & 3 \end{array} \quad r = \begin{array}{c|c|c|c} 0 & 0 & 1 & 1 \\ \hline 0 & 0 & 1 & 3 \end{array} \quad \text{Cout} = 1 \end{array}$$

$$\begin{array}{l} \text{OP}=1; \quad a = \begin{array}{c|c|c|c} 1 & 1 & 0 & 0 \\ \hline 1 & 3 & 2 & 0 \end{array} - b = \begin{array}{c|c|c|c} 0 & 1 & 0 & 0 \\ \hline 2 & 0 & 0 & 3 \end{array}; \quad r = \begin{array}{c|c|c|c} 1 & 0 & 1 & 1 \\ \hline 3 & 3 & 1 & 1 \end{array} \quad \text{Cout} = 0 \end{array}$$

$$\begin{array}{l} \text{OP}=1; \quad a = \begin{array}{c|c|c|c} 1 & 1 & 0 & 0 \\ \hline 1 & 3 & 2 & 0 \end{array} - b = \begin{array}{c|c|c|c} 0 & 1 & 0 & 0 \\ \hline 2 & 0 & 3 & 3 \end{array} \quad r = \begin{array}{c|c|c|c} 1 & 0 & 0 & 1 \\ \hline 3 & 2 & 2 & 1 \end{array} \quad \text{Cout} = 0 \end{array}$$