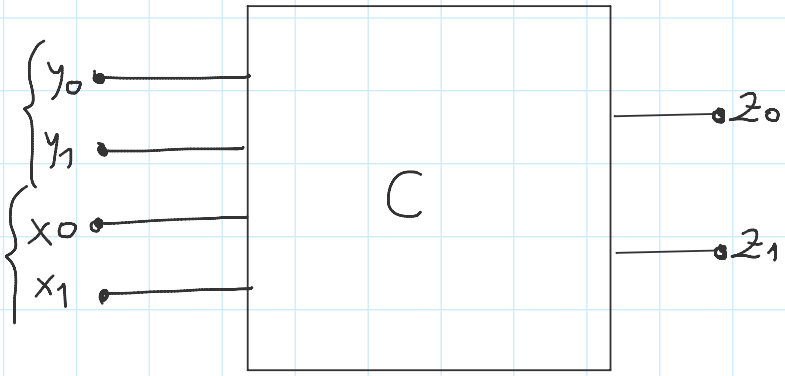
3. Esercizio 6 aprile

lunedì 6 aprile 2020 19:34



circuito comparatore

$z_1 z_0 = \left\lceil \frac{y_1 y_0}{x_1 x_0} \right\rceil$

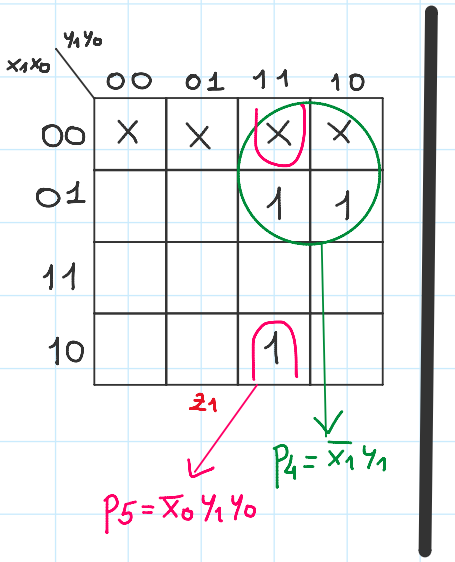
es. $y_1 y_0 = 11\ (3)$

$x_1 x_0 = 10\ (2)$

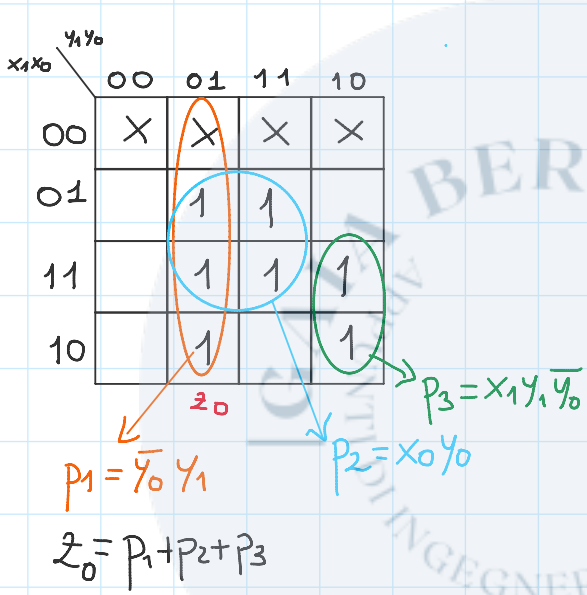
$z_1 z_0 = \left\lceil \frac{3}{2} \right\rceil = \lceil 1{,}5 \rceil = 2 \Rightarrow 10$ binario

es. $x_1 x_0 = 00 \Rightarrow z_1 z_0 = XX$

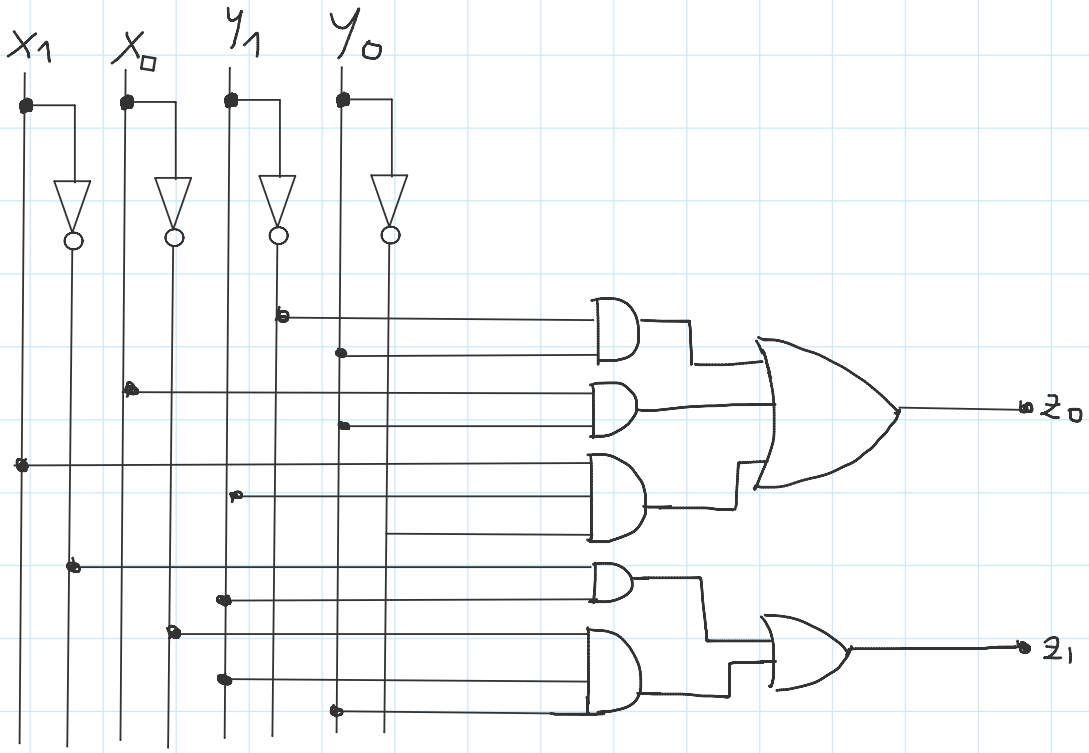
IMPLICANTI



$z_1 = p_4 + p_5$



$z_0 = p_1 + p_2 + p_3$



IMPLICATI

x_1x_0 \ y_1y_0	00	01	11	10
00	X	X	X	X
01	0	0		
11	0	0	0	0
10	0	0		0

z_1

$s_1 = y_1$

$s_2 = \bar{x}_1 + \bar{x}_0$

$s_3 = \bar{x}_1 + y_0$

$z_1 = s_1 \cdot s_2 \cdot s_3 = y_1 (\bar{x}_1 + \bar{x}_0)(\bar{x}_1 + y_0)$

x_1x_0 \ y_1y_0	00	01	11	10
00	X	X	X	X
01	0			0
11	0			
10	0		0	

z_0

$s_4 = y_1 + y_0$

$s_5 = x_0 + \bar{y}_1 + \bar{y}_0$

$s_6 = x_1 + y_0$

$z_0 = s_4 \cdot s_5 \cdot s_6 = (y_1 + y_0)(x_0 + \bar{y}_1 + \bar{y}_0)(x_1 + y_0)$