Τρίτη, 5 Οκτωβρίου 2021 10:39

Καλημέρα

ΑΝΑΠΑΡΑΣΤΩ ΠΛΗΡΟΦΟΡΙΑ

ΔΕΚΑΔΙΚΗ ΑΝΑΡΑΡΑΣΤΑΣΗ

$7392 = 7 \cdot 10^3 + 3 \cdot 10^2 + 9 \cdot 10 \cdot 2 \cdot 10^0$

$a_5 a_4 a_3 a_2 a_1 a_0 , a_{-1} a_{-2} a_{-3} =$

$10^5 \cdot a_5 + 10^4 \cdot a_4 + 10^3 \cdot a_3 + 10^2 a_2 + 10^1 a_1 + 10^0 a_0$

$+ 10^{-1} a_{-1} + 10^{-2} a_{-2} + 10^{-3} a_3$

ΔΥΑΔΙΚΗ ΑΝΑΠΑΡΑΣΤΑΣΗ 0, 1

$11010,11 = 1 \cdot 2^4 + 1 \cdot 2^3 + 0 \cdot 2^2 + 1 \cdot 2^1 + 0 \cdot 2^0$

$+ 1 \cdot 2^{-1} + 1 \cdot 2^{-2} \quad (26,75)$

ΑΝΑΠΑΡΑΣΤΑΣΗ ΜΕ ΒΑΣΗ ΤΟ r

$a_n , a_{n-1} \cdots a_0 \, a_{-1} \cdots a_{-m}$

$a_n r^n + a_{n-1} r^{n-1} + \cdots + a_2 r^2 + a_1 r + a_0 r^0 + a_{-1} r^{-1}$

$\cdots + a_{-m} r^{-m}$

$0 < a_i < r - 1$

$r = 16$ 15 διαφορετικά ψηφία

$r = 10$ a_i 0 9

$r = 16$ 0, 1 ..., 9, A B C D E F

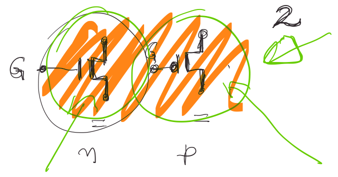
 10 11 12 13 14 15

$$\overset{r^3 \; r^2 \; r^1 \; r^0}{(B\,6\,5\,F)_{16}} = 11 \cdot 16^3 + 6 \cdot 16^2 + 5 \cdot 16 + 15 \cdot 16^0$$

$(46687)_{10}$

ΑΝΑΠΑΡΑΣΤΑΣΗ 10

2



10V = 1

0V = 0

n

G = 10V = 1

G = 0V = 0

p

G = 10V = 1

G = 0V = 0

0V
1V
2V
.
.
9V

10V → 1
0V → 0

Απο το ΔΕΚΑΔΙΚΟ στο ΔΥΑΔΙΚΟ

$41 \rightarrow 4 \cdot 10^1 + 1 \cdot 10^0 = (101001)_2$

$\frac{41}{2} = 20 + \frac{①}{2} \rightarrow a_0 = 1$

$\frac{20}{2} = 10 + \frac{0}{2} \rightarrow a_1 = 0$

$\frac{10}{2} = 5 + \frac{0}{2} \rightarrow a_2 = 0$

$\frac{5}{2} = 2 + \frac{1}{2} \rightarrow a_3 = 1$

$\frac{2}{2} = 1 + \frac{0}{2} \rightarrow a_4 = 0$

$\frac{1}{2} = 0 + \frac{1}{2} \rightarrow a_5 = 1$

$41 = 32 + 8 + 1$

$2^5 + 2^3 + 2^0 = (101001)_2$

$= 1 \cdot 2^5 + 0 \cdot 2^4 + 1 \cdot 2^3 + 0 \cdot 2^2 + 0 \cdot 2^1 + 1 \cdot 2^0$

$41 - 32 = 9$

$41 = 32 + \textcircled{9}$

$8 + 1$

$$\begin{array}{rl} & \overset{1}{} \quad \overset{1}{} \\ & 101001 \rightarrow 41 \\ + & 001001 \rightarrow 9 \\ \hline & 110010 \end{array}$$

$32 + 16 + 2 = 50$

$2^5 \quad 2^4$

$$\begin{array}{r} 1 \\ 4\textcircled{1} \\ +\ \textcircled{9} \\ \hline 50 \end{array}$$

10

$\boxed{11}$

$$\begin{array}{rl} & 32 \quad 8 \quad 2 \quad 1 \rightarrow \textcircled{43} \\ & 101011 \\ & 001011 \rightarrow \textcircled{11} \\ & \quad\ \ 8 \quad 2 \quad 1 \\ \hline \end{array}$$

$$\begin{array}{rl} & 1\ \ 1\ 1 \\ & 101011 \\ + & 001011 \\ \hline & 110110 \end{array}$$

$32 + 16 + 4 + 2$

$20 \quad 34 = 54$

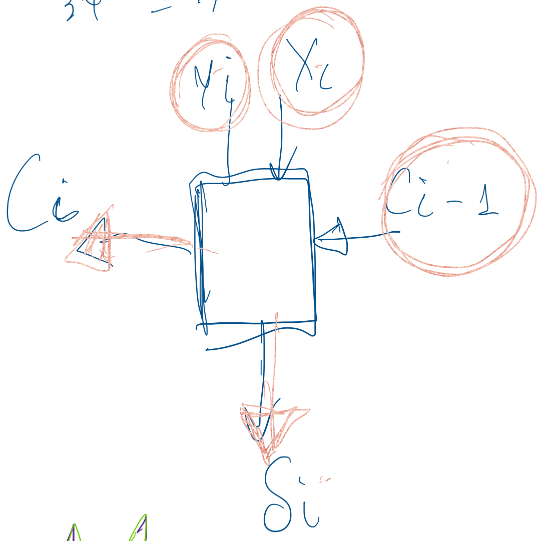
$C_1 \quad C_0$

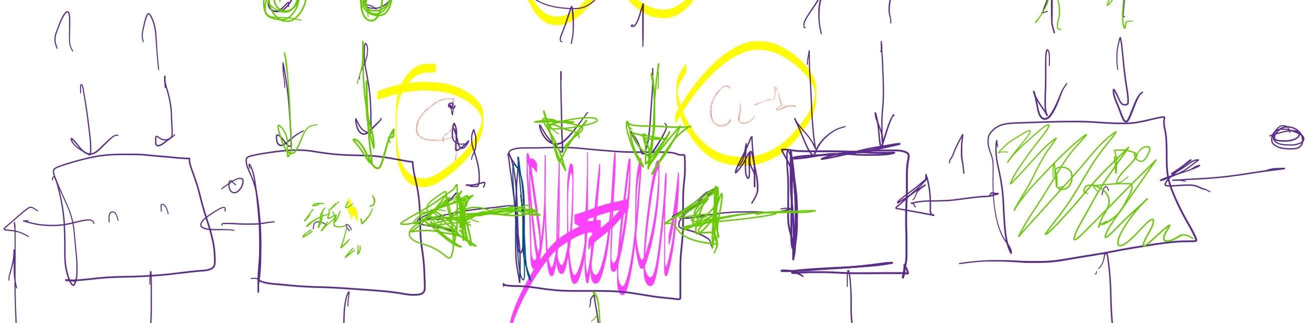
$$\begin{array}{rl} & 1\ \ 111 \\ & 10111 \\ & 10111 \\ \hline & 101110 \end{array}$$

$x_1 \quad x_0 \quad y_1 \quad y_0 \quad S_0 \quad S_1$

10

11



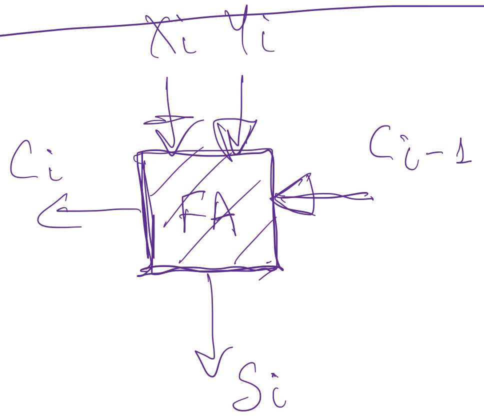


1 0 1 1 Si 1 0

ΠΙΝΑΚΑΣ ΑΛΗΘΕΙΑΣ

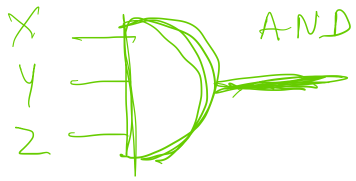
ΓΙΟΥΛΗ

Xi	Yi	Ci-1	Si	Ci
0	0	0	0	0
0	0	1	1	0
0	1	0	1	0
0	1	1	0	1
1	0	0	1	0
1	0	1	0	1
1	1	0	0	1
1	1	1	1	1



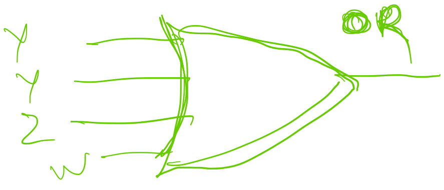
$S_i(x_i, y_i, C_{i-1})$

$C_i(x_i, y_i, C_{i-1})$



$X \cdot Y \cdot Z = 1$ ~~εαν~~ $X=1$ $Y=1$ $Z=1$

$=0$ σε κάθε άλλη περίπτωση

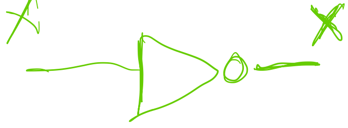


$X + Y + Z^{+W} = 1$ εάν έστω μία από X Y Z = 1

X or Y or Z

$=0$ εάν όλες $X=Y=Z=0$

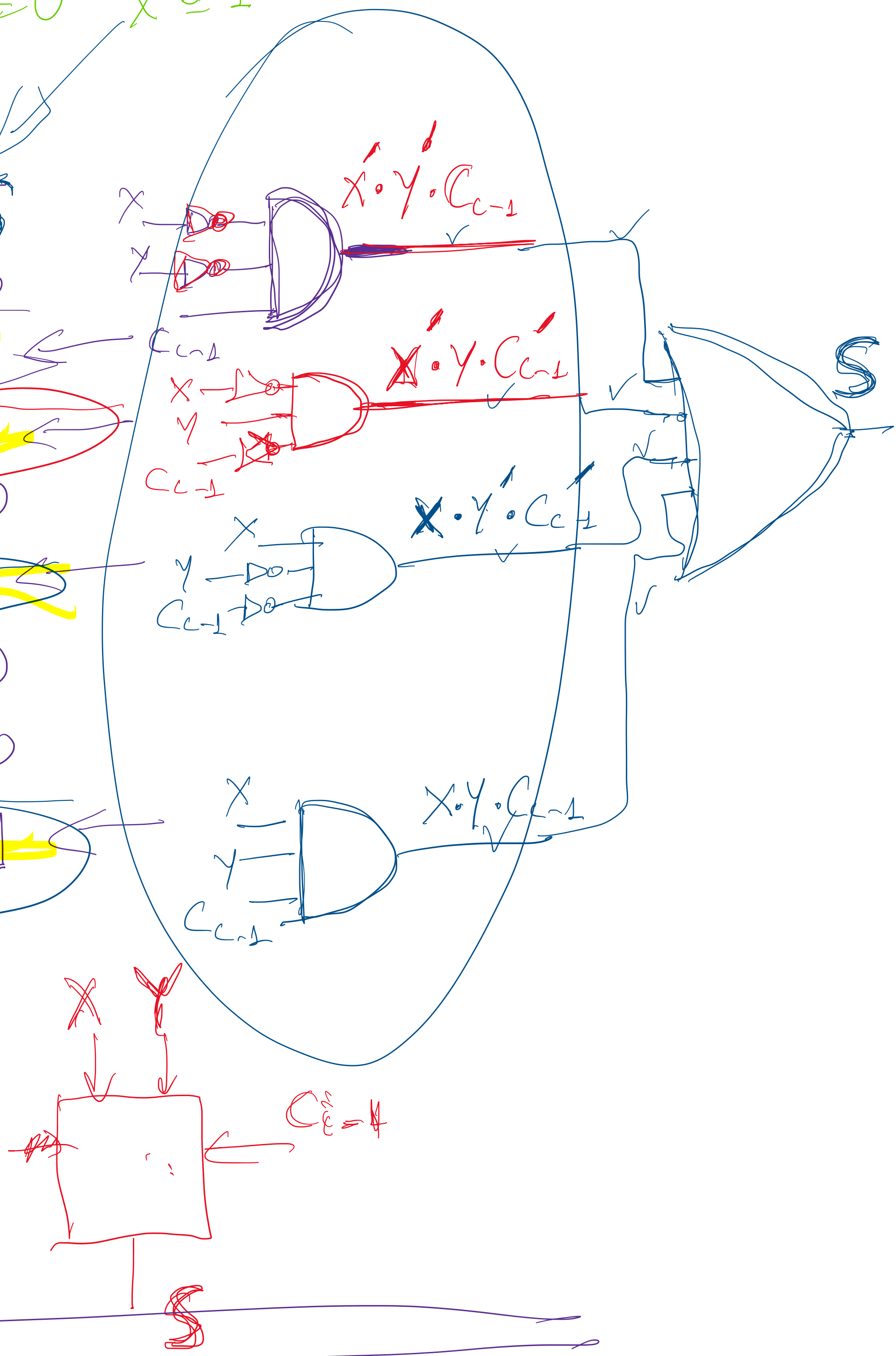
NOT

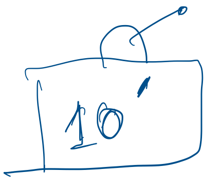


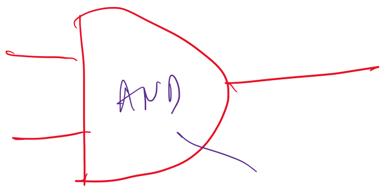
$X=1$ $X'=0$

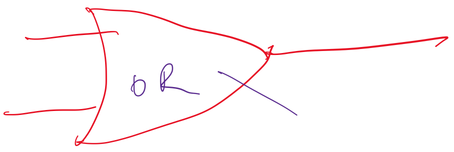
$X=0$ $X'=1$

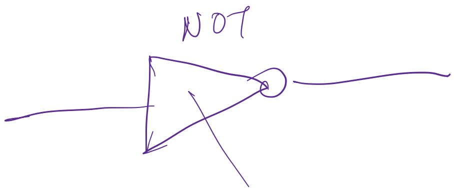
	X	Y	C_{i-1}	S
	0	0	0	0
	0	0	1	1
	0	1	0	1
	0	1	1	0
ΕΥΑ	1	0	0	1
	1	0	1	0
	1	1	0	0
ΤΡ.	1	1	1	1

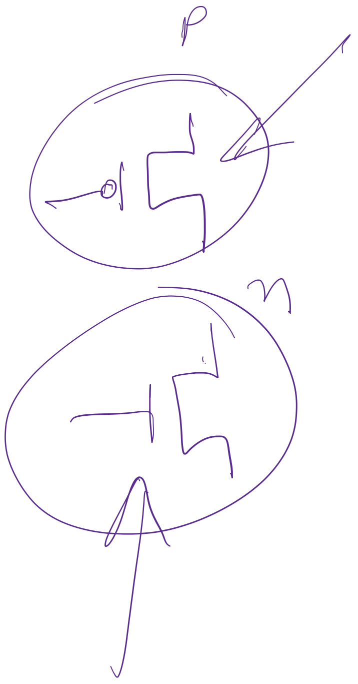


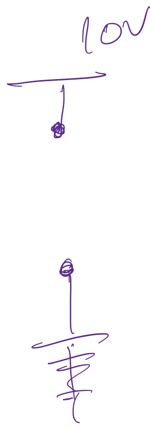












C_i

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