

23/12/19

רכיבים מוכנים

$$\begin{array}{r} + \text{Cin} \\ + \text{X} \\ + \text{Y} \\ \hline \text{Cout S} \end{array}$$

$$\begin{array}{r} \perp 0 \\ \perp 0 \\ \perp 1 \\ \hline \text{Cout S} \end{array}$$

לכנס נכנס



	Cin	X	Y	Cout	S
0	0	0	0	0	0
1	0	0	1	0	1
2	0	1	0	0	1
3	0	1	1	1	0
4	1	0	0	1	0
5	1	0	1	1	1
6	1	1	0	1	0
7	1	1	1	1	1

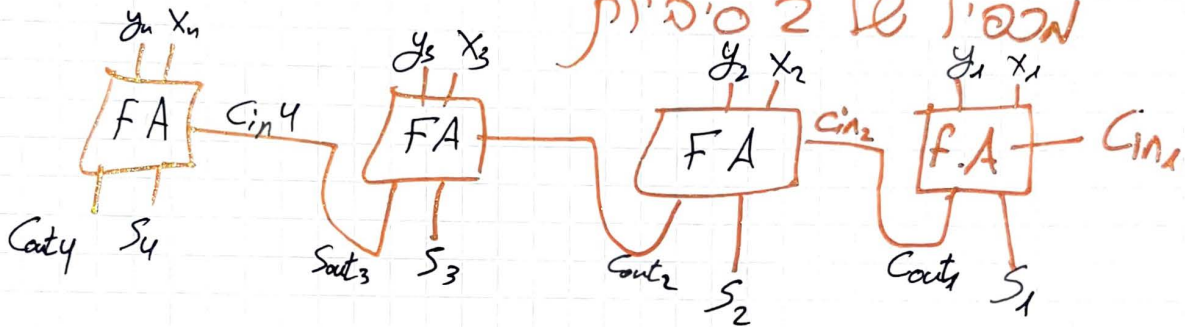
$$S(Cin, X, Y) = \Sigma(1, 2, 4, 7)$$

$$Cout(Cin, X, Y) = \Sigma(3, 5, 6, 7)$$

	Cin	XY	00	01	11	10
0	0	0	0	1	0	1
1	1	0	1	0	1	0
2	0	1	0	1	0	1
3	1	1	1	0	1	0

$$\begin{aligned} S &= Cin \cdot \bar{X} \cdot \bar{Y} + Cin \cdot \bar{X} \cdot Y + Cin \cdot X \cdot \bar{Y} + Cin \cdot X \cdot Y = \\ &= Y(Cin \bar{X} + Cin X) + \bar{Y}(Cin \bar{X} + Cin X) = \\ &= Y(X \oplus Cin) + \bar{Y}(X \oplus Cin) \end{aligned}$$

רכיבים מוכנים 2



$$\begin{array}{r} X_2 \quad X_1 \\ X \quad Y_2 \quad Y_1 \\ \hline C \quad X_2 Y_1 \quad X_1 Y_1 \\ X_2 Y_2 \quad X_1 Y_2 \end{array}$$

$P_4 \quad X_2 Y_2 + C \quad X_2 Y_1 + X_1 Y_2 \quad X_1 Y_1$

P_4
 P_3
 P_2
 P_1