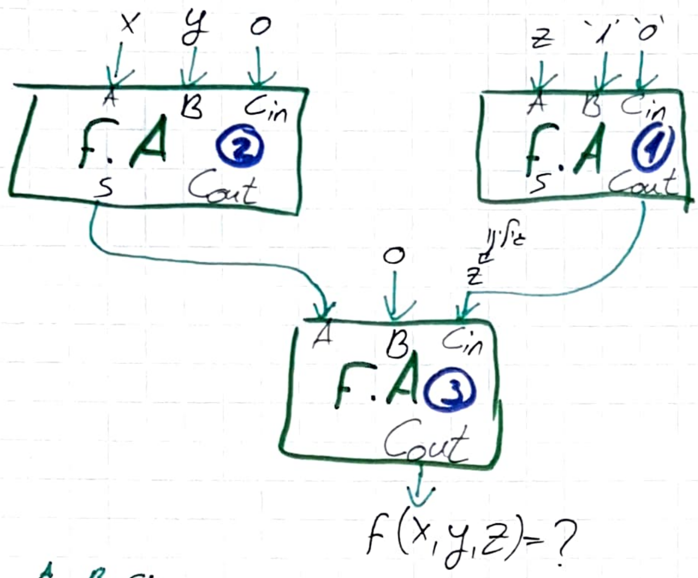
6/11/2

מע' ספרתיות 11

תרגיל מהמבחן לדוגמ' :

נתון:



נזכור:

$S(A,B,C_{in}) = A\oplus B\oplus C_{in}$

$C_{out}(A,B,C_{in}) = BC_{in}+AC_{in}+AB$

$Cout_1(z,1,0) = 1\cdot 0 + z\cdot 0 + z\cdot 1 = \boxed{z}$

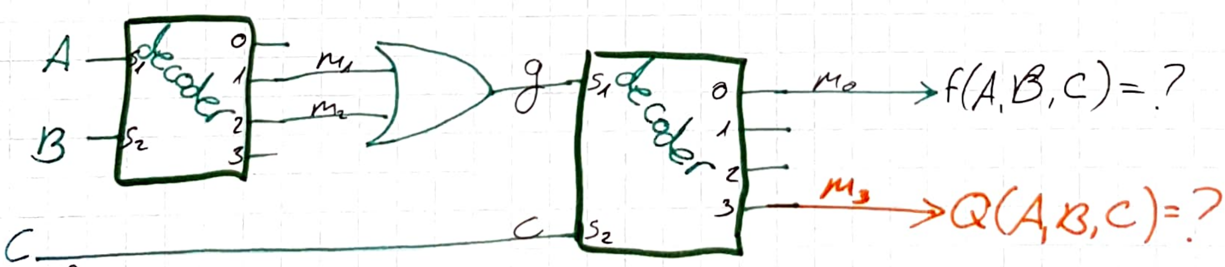
$S_2(x,y,0) = x\oplus y = \bar{x}y + x\bar{y}$

$FA_1 \rightarrow$ +z +1 +0

	Cout	S
z=0	0	1
z=1	1	0

$S_2 = \bar{A}\bar{B}C_{in} + \bar{A}BC_{in} + A\bar{B}\bar{C}_{in} + ABC_{in} = A\oplus B\oplus C_{in}$

$f(x,y,z) = Cout_3(S_2,0,z) = 0\cdot z + S_2\cdot z + S_2\cdot 0 = S_2\cdot z = \boxed{z(\bar{x}y + x\bar{y})}$



מינטרמים

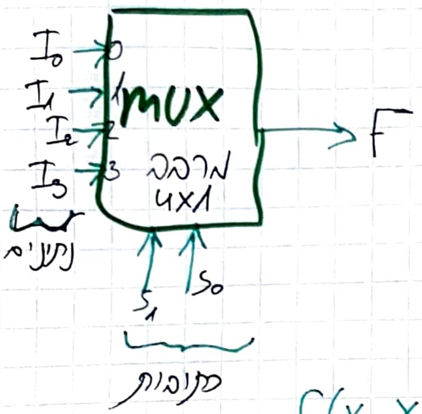
$g = m_1 + m_2 = \bar{A}B + A\bar{B}$

$f = m_0 = \bar{g}\bar{c} = \overline{(\bar{A}B + A\bar{B})}\cdot\bar{c} = (\overline{\bar{A}B}\cdot\overline{A\bar{B}})\bar{c} = (\bar{\bar{A}}+\bar{B})\cdot(\bar{A}+\bar{\bar{B}})\bar{c} = (A\bar{A} + AB + \bar{A}\bar{B} + B\bar{B})\cdot\bar{c} =$

$= \boxed{AB\bar{c} + \bar{A}\bar{B}\bar{c}}$

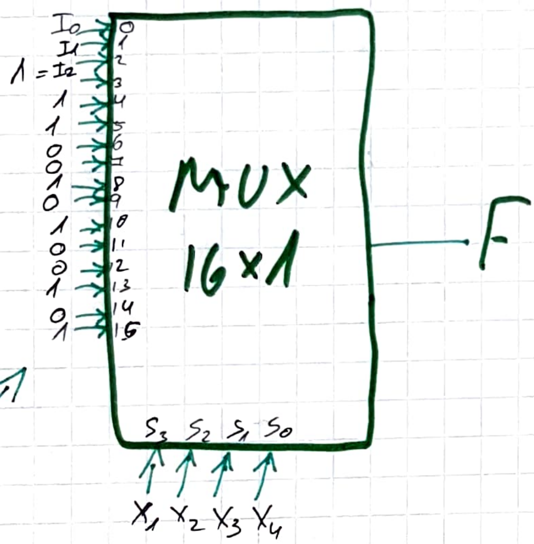
$Q = m_3 = g\cdot c = (\bar{A}B + A\bar{B})c$

המשך...



S_1	S_2	F
0	0	I_0
0	1	I_1
1	0	I_2
1	1	I_3

$$f(x_1, x_2, x_3, x_4) = \Sigma(2,3,4,5,8,10,13,15)$$



זו התשובה.