

$$yxz - (x+y)(x+y) \quad (1) \quad (2)$$

$$xy(z-1) + x(y+y)$$

$$xy + x$$

$$x(y+1)$$

$$x \cdot 1 = x$$

$$(x+y)(1+y) \quad (2) \quad (3)$$

$$x1 + xy + y1 + yy$$

$$x1 + xy + y1 + y$$

$$f(x, y, z) = yz + zx$$

$$yz + zx \quad \text{הכנסה}$$

$$(y+z)(z+x)$$

$$(y+z)'(z+x)'$$

$$(y+z)(z+x)$$

$$\text{זה מוכיח}$$

$$[yz + zx]'$$

$$(yz)' + (zx)'$$

$$(y+z)'(z+x)'$$

$$(y+z)(z+x)$$

$$f(x, y, z) = (x+y+z)(x+y) \quad (1) \quad (2)$$

$$(xyz) - (xy) \quad \text{הכנסה}$$

$$: \text{הכנסה}$$

$$(xyz) - (xy)$$

$$\text{זה מוכיח}$$

$$[(x+y+z)(x+y)]'$$

$$(x+y+z)'(x+y)'$$

$$(xyz)' + (xy)' =$$

$$(xyz) + (xy)$$

$$x'y + xy \rightarrow \text{הכנסה} \quad (x+y)(x+y) \quad (5) \quad (6)$$

$$(x+y)'(x+y)' = (x+y)'(x+y)$$

$$(x+y)(x+y) = (x+y)(x+y)$$

$$\text{מכאן נובע ש...}$$

I. $f(x, y, z) = xy + yz$

$$xy(2-z) + yz(x-x')$$

$$xyz + xy'z + xy'z + x'y'z$$

$$\downarrow \quad \downarrow \quad \downarrow \quad \downarrow$$

$$M_3 + M_6 + M_5 + M_7 = \sum (1, 5, 6, 7)$$

$x'y'z'$	000	M_0
$x'y'z$	001	M_1
$x'yz'$	010	M_2
$x'yz$	011	M_3
$xy'z'$	100	M_4
$xy'z$	101	M_5
xyz'	110	M_6
xyz	111	M_7

II. $f(x, y, z) = x + y + z$

$$x(y-z) + y'(x-x') + z(y-y')$$

$$xy + xy' = xy' + x'y' + 2y + 2y'$$

$$(xy + x'y)(2-z) + (x'y' + y'y')(z+z') + (2y + 2y')(x' + x)$$

$$xyz + xy'z + x'y'z + x'y'z + x'y'z + x'y'z + x'y'z + x'y'z + x'y'z + x'y'z$$

$$\downarrow \quad \downarrow \quad \downarrow \quad \downarrow \quad \downarrow \quad \downarrow \quad \downarrow \quad \downarrow \quad \downarrow \quad \downarrow$$

$$M_3 + M_6 + M_5 + M_4 + M_7 + M_0 + M_3 + M_3 + M_1 + M_7 = \sum (1, 3, 4, 5, 6, 7)$$

III. $f(x, y, z) = (x+y)(z+x)$

$$xz + \underbrace{xx'}_1 + yz + yx$$

$$xz(y-y') + yz(x-x') + yx(z+z')$$

$$x'yz + x'yz' = x'yz + x'yz' + x'yz + x'yz'$$

$$\downarrow \quad \downarrow \quad \downarrow \quad \downarrow \quad \downarrow \quad \downarrow$$

$$M_3 + M_1 + M_4 + M_3 + M_3 + M_6 = \sum (1, 3, 6, 7)$$

I. $f(x, y, z) = x'y + z$

$$(x' + z)(y + z)$$

$$(x' + z - yy')(y + z - xx')$$

$$(x' + y' + z)(x' + y + z)(x + y + z)(x' + y + z)$$

$$\downarrow \quad \downarrow \quad \downarrow \quad \downarrow$$

$$M_6 + M_4 + M_0 + M_4 = \sum (0, 4, 6)$$

II. $f(x, y, z) = (x+y)(z+x)$

$$(x+y + z)(z+x - yy')$$

$$(x+y + z)(x+y + z) \left(\frac{x+y+z}{x+y+z} \right) (x+y + z)$$

$$\downarrow \quad \downarrow \quad \downarrow \quad \downarrow$$

$$M_6 + M_4 + M_0 + M_2 = \sum (0, 2, 6, 7)$$

xyz	P_{odd}	(4)
xyz 000	1	(K)
xyz 001	0	
xyz 010	0	
xyz 011	1	
xyz 100	0	
xyz 101	1	
xyz 110	1	
xyz 111	0	

$$\bar{x}\bar{y}\bar{z} + \bar{x}yz + x\bar{y}\bar{z} + x\bar{y}z$$

$$\downarrow \quad \downarrow \quad \downarrow \quad \downarrow$$

$$M_0 + M_3 + M_5 + M_6 = \sum (0, 3, 5, 6)$$

$$(\bar{x} + \bar{y} + \bar{z})(\bar{x} + y + \bar{z})(x + \bar{y} + \bar{z})(x + y + \bar{z})$$

$$\downarrow \quad \downarrow \quad \downarrow \quad \downarrow$$

$$M_7 \cdot M_4 \cdot M_3 \cdot M_1 =$$

$$\sum (1, 3, 4, 7)$$