Nguyễn Minh Dương

b)

x	y	z	f
1	1	1	0
1	1	0	0
1	0	1	0
1	0	0	0
0	1	1	0
0	1	0	1
0	0	1	0
0	0	0	1

tổng: $f(x,y,z) = \bar{x}y\bar{z} + \bar{x}\bar{y}\bar{z}$

tích:

$f(x,y,z) = (\bar{x}+\bar{y}+z)(\bar{x}+\bar{y}+z)(\bar{x}+y+\bar{z})(\bar{x}+y+z)(x+\bar{y}+\bar{z})(x+y+\bar{z})$

c)

x	y	z	f
1	1	1	1
1	1	0	1
1	0	1	1
1	0	0	0
0	1	1	1
0	1	0	0
0	0	1	0
0	0	0	0

tổng:

$f(x,y,z) = xyz + xy\bar{z} + x\bar{y}z + \bar{x}yz$

tích:

$f(x,y,z) = (\bar{x}+y+z)(x+\bar{y}+z)(x+y+\bar{z})(x+y+z)$

d)

x	y	z	f
1	1	1	1
1	1	0	0
1	0	1	0
1	0	0	1
0	1	1	0
0	1	0	1
0	0	1	1
0	0	0	0

tổng:

$f(x,y,z) = xyz + x\bar{y}\bar{z} + \bar{x}y\bar{z} + \bar{x}\bar{y}z$

tích:

$f(x,y,z) = (\bar{x}+\bar{y}+z)(\bar{x}+y+\bar{z})(x+\bar{y}+\bar{z})(x+y+z)$

Nguyễn Minh Dương

b,

x	y	z	t	f
1	1	1	1	1
1	1	1	0	1
1	1	0	1	1
1	1	0	0	0
1	0	1	1	1
1	0	1	0	0
1	0	0	1	0
1	0	0	0	0
0	1	1	1	1
0	1	1	0	0
0	1	0	1	0
0	1	0	0	0
0	0	1	1	0
0	0	1	0	0
0	0	0	1	0
0	0	0	0	0

$g(x,y,z,t) =$

$xyzt + xyz\bar{t} + xy\bar{z}t + x\bar{y}zt + \bar{x}yzt$

Bài 5:

a,

x	y	z	f
1	1	1	1
1	1	0	1
1	0	1	0
1	0	0	0
0	1	1	0
0	1	0	0
0	0	1	0
0	0	0	0

tổng

$g(x,y,z) = xyz + xy\bar{z}$

tích

$g(x,y,z) = (\bar{x}+\bar{y}+\bar{z})(\bar{x}+y+z)(x+\bar{y}+\bar{z})(x+\bar{y}+z)(x+y+\bar{z})(x+y+z)$

Mon○ Tue○ Wed○ Thu○ Fri○ Sat○ Date: No:

Dòng kẻ tiêu chuẩn

AN TOÀN ★★★★

Nguyễn Minh Dương

1, $f(x,y,z) = x$

x	y	z	
1	1	1	
1	1	0	
1	0	1	
1	0	0	
0	1	1	
0	1	0	
0	0	1	
0	0	0	

$f(x,y,z) = xyz + x\bar{y}z + xy\bar{z} + x\bar{y}\bar{z}$

Bài 4:

$f(x,y,z,t)$

x	y	z	t	
1	1	1	1	
1	1	1	0	
1	1	0	1	
1	1	0	0	
1	0	1	1	
1	0	1	0	
1	0	0	1	
1	0	0	0	
0	1	1	1	
0	1	1	0	
0	1	0	1	
0	1	0	0	
0	0	1	1	
0	0	1	0	
0	0	0	1	
0	0	0	0	

$f(x,y,z,t) = xyzt + xy\bar{z}t + xy\bar{z}\bar{t} + x\bar{y}zt + x\bar{y}z\bar{t} + x\bar{y}\bar{z}t + \bar{x}yzt + \bar{x}y\bar{z}t + \bar{x}\bar{y}zt$

Nguyễn Minh Dương

B3:

a, $f(x, y, z) = x + y + z$

x	y	z	f
1	1	1	1
1	1	0	1
1	0	1	1
1	0	0	1
0	1	1	1
0	1	0	1
0	0	1	1
0	0	0	0

$f(x, y, z) = xyz + xy\bar{z} + x\bar{y}z + x\bar{y}\bar{z}$

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

b, $f(x, y, z) = (x + z)y$

$= xy + zy$ (Luật nhân phối)

$= xy \cdot 1 + zy \cdot 1$ (" " ")

$= xy(z + \bar{z}) + zy(x + \bar{x})$ (Luật bù)

$= xyz + xy\bar{z} + zyx + zy\bar{x}$ (Luật nhân phối)

$= xyz + xy\bar{z} + xyz + \bar{x}yz$ (Luật giao hoán)

$= xyy + xyz + xy\bar{z} + \bar{x}yz$ (Luật giao hoán)

$= xyz + xy\bar{z} + \bar{x}yz$ (Luật lũy đẳng)

Nguyễn Minh Dương

Bài 2:

a, $F(x,y,z) = x\bar{y} + (\overline{xyz})$

x	y	z	$\bar{y}$	$x\bar{y}$	$\overline{xyz}$	F
1	1	1	0	0	0	0
1	1	0	0	0	1	1
1	0	1	1	1	1	1
1	0	0	1	1	1	1
0	1	1	0	0	1	1
0	1	0	0	0	1	1
0	0	1	1	0	1	1
0	0	0	1	0	1	1

b, $F(x,y,z) = x(yz + \bar{y}\bar{z})$

x	y	z	$\bar{y}$	$\bar{z}$	yz	$\bar{y}\bar{z}$	$yz + \bar{y}\bar{z}$	F
1	1	1	0	0	1	0	1	1
1	1	0	0	1	0	0	0	0
1	0	1	1	0	0	0	0	0
1	0	0	1	1	0	1	1	1
0	1	1	0	0	1	0	1	1
0	1	0	0	1	0	0	0	0
0	0	1	1	0	0	0	0	0
0	0	0	1	1	0	1	1	1

AN TOÀN ★ ★ ★ ★

Bài tập về nhà tuần 8,

Nguyễn Minh Dương

Bài 1: Chứng minh

a, $xz + \bar{x}y = (x+y)(\bar{x}+z)(y+z)$

vế up $= (x+y)(\bar{x}+z)(y+z)$

$= [(x+y)(\bar{x}+z)](y+z)$ < Luật kết hợp >

$= [(x+y)\bar{x} + (x+y)z](y+z)$ < Luật phân phối >

$= (x\bar{x} + y\bar{x} + xz + yz)(y+z)$ < Luật phân phối >

$= (0 + y\bar{x} + xz + yz)(y+z)$ < Luật bù >

$= (0(y+z) + y\bar{x}(y+z) + xz(y+z) + yz(y+z)$ < LPP >

$= 0 + y\bar{x}(y+z) + xz(y+z) + yz(y+z)$ < Luật nuốt >

$= y\bar{x}y + y\bar{x}z + xzy + xzz + yzy + yzz$ < Luật phân phối >

$= \bar{x}y + y\bar{x}z + xzy + xz + yz + yz$ C Luật lũy đẳng)

$= \bar{x}y + yz(\bar{x} + x + \bar{x}) + xz$

$= \bar{x}y + yz\bar{x} + yzx + xz$

$= \bar{x}y + yz\bar{x} + yzx + xz$

$= \bar{x}y(1+z) + xz(y+1)$

$= \bar{x}y + xz$

$= xz + \bar{x}y = VT$

Mon○ Tue○ Wed○ Thu○ Fri○ Sat○ Date: No: