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

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

$= xy(z+z') + xy'(z+z')$

$= xyz + xyz' + xy'z + xy'z'$

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

$= xy' + x'y'$

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

$= xy'z + xy'z' + x'y'z + x'y'z'$

$z = z(x + x')$

$= xz + x'z$

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

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

Jadi $f(x,y,z) = xy' + z$

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

$= m_0 + m_1 + m_3 + m_4 + m_5 + m_6 + m_7$

$= \Sigma(0,1,3,4,5,6,7)$

b. Pos $F(x,y,z) = M_2 = \pi(2)(x', y, z')$

2 $f(x,y,z) = x'z + y'x$

a. Sop $x'z = x'z(y + y')$

$= x'yz + x'y'z$

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

$= xy'z + xy'z'$

Jadi $F(x,y,z) = x'z + y'x$

$= x'yz + x'y'z + xy'z + xy'z'$

$f(x,y,z) = m_3 + m_1 + m_5 + m_4$

$= \Sigma(1,3,4,5)$

b. Pos $F(x,y,z) = M_0 + M_2 + M_6 + M_7$

$= \pi(0,2,6,7)$

3. f (x y z) = z' + y' + x'y

a. SOP

z' = z' (x + x')

= xz' + x'z'

= xz' (y+y') + x'z' (y + y')

= xyz' + xy'z' + x'yz' + x'y'z'

y' = y' (x + x'

= xy' + x'y'

= xy' (z+z') + x'y' (z+z')

= xy'z + xy'z' + x'y'z + x'y'z'

x'y = x'y (z + z')

xyz + x'yz'

Jadi f (x,y,z) = z' + y' + x'y

= xyz' + xy'z' + x'yz' + x'y'z' + xy'z + xy'z' x

+ x'y'z + x'y'z' + xx'yz + x'y'z'

= m0 + m1 m2 + m3 + m4 + m5 + m6

= Σ (0, 1, 2, 3, 4, 5, 6

b. Pos P (x, y, z) = m7 = Π (7) (xyz)

4 f (x, y, z) = x + y

a SOP

x = x (y + y')

= xy + xy'

xy (z + z') + xy' (z + z')

xyz + xyz' + xy'z + xy'z'

y = y (x + x')

xy + x'y

xy (z + z') + x'y (z + z')

xyz + xyz' + x'yz + x'yz'

Jadi f (x y z) = x + y

= xyz + xyz' + xy'z + xy'z' + xyz + xyz'

+ x'yz + x'yz'

= m2 + m3 + m4 + m5 + m6 + m7

Σ (2 3 4 5 6 7)

b Pos

f (x, y, z) = m0 + m1 = Π (0, 1)

5. $f(x, y, z) = x$

a. SOP

$x(y + y')$

$= xy + xy'$

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

$xyz + xyz' + xy'z + xy'z'$

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

$= xyz + xyz' + xy'z + xy'z'$

$= m_4 + m_5 + m_6 + m_7$

$\Sigma(4, 5, 6, 7)$

b. POS

$f(x, y, z) = M_0 \cdot M_1 \cdot M_2 \cdot M_3$

$\Pi(0, 1, 2, 3)$