

1 (a)

X	Y	Z	X'Y	X'Y'Z	XYZ'	F ₁	X'Z	YZ'	F ₂
0	0	0	0	0	0	0	0	0	0
0	0	1	0	1	0	1	1	0	1
0	1	0	1	0	0	1	0	1	1
0	1	1	1	0	0	1	1	0	1
1	0	0	0	0	0	0	0	0	0
1	0	1	0	0	0	0	0	0	0
1	1	0	0	0	1	1	0	1	1
1	1	1	0	0	0	0	0	0	0

$$(b) X'Y + X'Y'Z + XYZ'$$

$$= Y(X' + XZ') + X'Y'Z$$

$$= Y(X' + Z') + X'Y'Z$$

$$= X'Y + YZ' + X'Y'Z$$

$$= X'(Y + Y'Z) + YZ'$$

$$= X'(Y + Z) + YZ'$$

$$= \underbrace{X'Y + YZ'}_{\text{Consensus}} + X'Z$$

Consensus

$$= YZ' + X'Z \quad \text{이다.}$$

$$(c) X'Y + X'Y'Z + XYZ' = X'Y(Z + Z') + X'Y'Z + XYZ'$$

$$= X'YZ + X'YZ' + X'Y'Z + XYZ' \quad \text{이다.}$$

$$X'Z + YZ' = X'Z(Y + Y') + YZ'(X + X')$$

$$= X'YZ + X'Y'Z + XYZ' + X'YZ' \quad \text{이다.}$$

즉 두 식은 동일하다.