

Keith A. Kuntz
 CS 42
 Assig. 3
 Fall 2004

2-15) a) $\bar{X}\bar{Z} + Y\bar{Z} + XYZ$

		Y			
		00	01	11	10
X	0	1			1
	1		1	1	1

Z

$= \bar{X}\bar{Z} + XY$

2-16) b) $F(W, X, Y, Z) = \sum m(0, 2, 5, 6, 8, 10, 13, 14, 15)$

		Y			
		00	01	11	10
W	00	1			1
	01		1		1
	11		1	1	1
	10	1			1

Z

$= \bar{X}\bar{Z} + Y\bar{Z} + WXZ + X\bar{Y}Z$

OR

$= \bar{X}\bar{Z} + Y\bar{Z} + WXY + X\bar{Y}Z$

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2-18) c) $\bar{B}\bar{D} + ABD + \bar{A}BC$

AB \ CD		C			
		00	01	11	10
A	00	1			1
	01			1	1
	11		1	1	
	10	1			1

D

$= \sum m(0, 2, 6, 7, 8, 10, 13, 15)$