

Homework 2

Exercise 1

$$Y = a \& b \mid c$$

a	b	c	Y
0	0	0	0
0	0	1	1
0	1	0	0
0	1	1	1
1	0	0	0
1	0	1	1
1	1	0	1
1	1	1	1

Exercise 2

a	b	c	Y
0	0	0	0
0	0	1	1
0	1	0	1
0	1	1	1
1	0	0	0
1	0	1	0
1	1	0	1
1	1	1	1

$$Y = \sim a \& c \mid b$$

Exercise 3

$$14 \gg 2 \wedge 3 = 12$$

$$14_{10} = 1110_2, \quad 1110 \gg 2 = 1111$$

$$3_{10} = 11_2, \quad 1111 \wedge 0011 = 1100, \quad 1100_2 = 12_{10}$$