

$$y = \bar{x}_1 + x_2 x_3$$

x_1	x_2	x_3	\bar{x}_1	$x_2 x_3$	$\bar{x}_1 + x_2 x_3$
0	0	0	1	0	1
0	0	1	1	0	1
0	1	0	1	0	1
0	1	1	1	1	1
1	0	0	0	0	0
1	0	1	0	0	0
1	1	0	0	0	0
1	1	1	0	1	1

x_1	x_2	x_3	y
0	0	0	1 · $\bar{x}_1 \bar{x}_2 \bar{x}_3$
0	0	1	1 · $\bar{x}_1 \bar{x}_2 x_3$
0	1	0	1 · $\bar{x}_1 x_2 \bar{x}_3$
0	1	1	1 · $\bar{x}_1 x_2 x_3$
1	0	0	0
1	0	1	0
1	1	0	0
1	1	1	1 · $x_1 x_2 x_3$

$$\begin{aligned}
 y &= \bar{x}_1 \bar{x}_2 \bar{x}_3 + \bar{x}_1 \bar{x}_2 x_3 + \bar{x}_1 x_2 \bar{x}_3 + \bar{x}_1 x_2 x_3 + \\
 &+ x_1 x_2 x_3 = \bar{x}_1 \bar{x}_2 (\bar{x}_3 + x_3) + \bar{x}_1 x_2 (\bar{x}_3 + x_3) + \\
 &+ x_1 x_2 x_3 = \bar{x}_1 \bar{x}_2 + \bar{x}_1 x_2 + x_1 x_2 x_3 = \\
 &= \bar{x}_1 (\bar{x}_2 + x_2) + x_1 x_2 x_3 = \bar{x}_1 + x_1 x_2 x_3
 \end{aligned}$$

x_1	x_2	y	
0	0	1	$\bar{x}_1 \bar{x}_2$
0	1	0	
1	0	1	$x_1 \bar{x}_2$
1	1	1	$x_1 x_2$

$$y = x_1 + \bar{x}_1 \bar{x}_2$$

$-x_1$

$$y = \bar{x}_1 \bar{x}_2 + x_1 \bar{x}_2 + x_1 x_2 =$$

$$= \bar{x}_2 (\bar{x}_1 + x_1) + x_1 x_2 = \bar{x}_2 + x_1 x_2$$

$$y = \bar{x}_2 + x_1 x_2$$

x_1	x_2	\bar{x}_2	$x_1 x_2$	$\bar{x}_2 + x_1 x_2$
0	0	1	0	1
0	1	0	0	0
1	0	1	0	1
1	1	0	1	1

a	b	c	y
0	0	0	0
0	0	1	1
0	1	0	1
0	1	1	0
1	0	0	0
1	0	1	0
1	1	0	1
1	1	1	0

$\bar{a} \bar{b} c$
 $\bar{a} b \bar{c}$

2^0

$a b \bar{c}$

3^0

$$y = \bar{a} \bar{b} c + \bar{a} (b \bar{c}) + a (b \bar{c}) =$$

$$= \bar{a} \bar{b} c + (\bar{a} + a) b \bar{c} = \bar{a} \bar{b} c + b \bar{c}$$

x_1	x_2	x_3	y
0	0	0	1
0	0	1	1
0	1	0	1
0	1	1	1
1	0	0	0
1	0	1	0
1	1	0	0
1	1	1	1

		$x_1 x_2$			
		00	01	11	10
x_3	0	1	1	0	0
	1	1	1	1	0

$$\bar{x}_1 + x_2 x_3$$

x_1	x_2	y
0	0	1
0	1	0
1	0	1
1	1	1

		x_1	
		0	1
x_2	0	1	1
	1	0	1

$$y = \bar{x}_2 + x_1$$

x_1	x_2	x_3	x_4	y

	$x_1 x_2$	$x_1 x_2$	$x_1 x_2$	$x_1 x_2$
	00	01	11	10
00	0	1	1	0
01	1	1	1	0
11	0	1	0	0
10	0	1	0	0

$$y = \bar{x}_1 x_2 + x_2 \bar{x}_3 + \bar{x}_1 \bar{x}_3 x_4$$