

$$\begin{array}{r} 11 \\ +11 \\ \hline 110 \end{array}$$

$$11 = 3$$

$$\begin{array}{r} +21 \\ 000 \end{array}$$

$$11 + 10 = 101 \quad 11 + 11 = 110$$

LAB #2

a_1, a_0, b_1, b_0	s_2, s_1, s_0
0 0 0 0	0 0 0
0 0 0 1	0 0 1
0 0 1 0	0 1 0
0 0 1 1	0 1 1
0 1 0 0	0 0 1
0 1 0 1	0 1 0
0 1 1 0	0 1 1
0 1 1 1	1 0 0
1 0 0 0	0 1 0
1 0 0 1	0 1 1
1 0 1 0	1 0 0
1 0 1 1	1 0 1
1 1 0 0	0 1 1
1 1 0 1	1 0 0
1 1 1 0	1 0 1
1 1 1 1	1 1 0

$$s_2 = \bar{a}_1 \bar{a}_0 b_1 b_0 + a_1 \bar{a}_0 b_1 \bar{b}_0 + a_1 \bar{a}_0 b_1 b_0 + a_1 a_0 \bar{b}_1 b_0 + a_1 a_0 b_1 \bar{b}_0 + a_1 a_0 b_1 b_0$$

$$s_1 = \bar{a}_1 \bar{a}_0 b_1 \bar{b}_0 + \bar{a}_1 \bar{a}_0 b_1 b_0 + \bar{a}_1 a_0 \bar{b}_1 b_0 + \bar{a}_1 a_0 b_1 \bar{b}_0 + \bar{a}_1 a_0 b_1 b_0 + a_1 \bar{a}_0 \bar{b}_1 b_0 + a_1 \bar{a}_0 b_1 \bar{b}_0 + a_1 \bar{a}_0 b_1 b_0$$

$$s_0 = \bar{a}_1 \bar{a}_0 \bar{b}_1 b_0 + \bar{a}_1 \bar{a}_0 b_1 b_0 + \bar{a}_1 a_0 \bar{b}_1 b_0 + \bar{a}_1 a_0 b_1 \bar{b}_0 + \bar{a}_1 a_0 b_1 b_0 + a_1 \bar{a}_0 \bar{b}_1 b_0 + a_1 \bar{a}_0 b_1 \bar{b}_0 + a_1 \bar{a}_0 b_1 b_0$$

s_2

$a_1, a_0 \backslash b_1, b_0$	00	01	11	10
00	0	0	0	0
01	0	0	1	0
11	0	1	1	1
10	0	0	1	1

s_1

$a_1, a_0 \backslash b_1, b_0$	00	01	11	10
00	0	0	1	1
01	0	1	0	1
11	1	0	1	0
10	1	1	0	0

s_0

$a_1, a_0 \backslash b_1, b_0$	00	01	11	10
00	0	1	1	0
01	1	0	0	1
11	1	0	0	1
10	0	1	1	0

$$s_2 = a_1 b_1 + a_1 a_0 b_0 + a_0 b_1 b_0$$

$$s_1 = a_1 \bar{b}_1 \bar{b}_0 + a_1 \bar{a}_0 \bar{b}_1 + a_1 a_0 \bar{b}_1 b_0 + a_1 a_0 b_1 \bar{b}_0 + a_1 \bar{a}_0 b_1 + a_1 b_1 \bar{b}_0$$

$$s_0 = a_0 \bar{b}_1 + a_0 b_0$$