A	B	C	S	Cout
0	0	0	0	0
0	0	1	1	0
0	1	0	1	0
0	1	1	0	1
1	0	0	1	0
1	0	1	0	1
1	1	0	0	1
1	1	1	1	1

C \ AB	00	01	11	10
0		①1		①1
1	①1		①1	

$$\text{SUM} = \bar{A}\bar{B}C + \bar{A}B\bar{C} + ABC + A\bar{B}\bar{C}$$

C \ AB	00	01	11	10
0			1	
1		1	1	1

$$\text{carry} = BC + AC + AB$$