Exercice 1: $(\sim A + (C+B)) * (\sim(\sim B * \sim C))$

	A	B	C	~A	~B	~C	C+B	~B * ~C	(~A + (C+B)) * (~(~B * ~C))
0	0	0	0	1	1	1	0	1	0
1	0	0	1	1	1	0	1	0	1
2	0	1	0	1	0	1	1	0	1
3	0	1	1	1	0	0	1	0	1
4	1	0	0	0	1	1	0	0	0
5	1	0	1	0	1	0	1	0	0
6	1	1	0	0	0	1	1	0	0
7	1	1	1	0	0	0	1	0	0

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Exercise 2: $\sim(\sim A * B) * \sim(\sim A * \sim B) + A * C$

	A	B	C	~A	~B	~A * ~B	~A * B	~(~A * B)	~(~A * ~B)	A * C	...
0	0	0	0	1	1	1	0	1	0	0	0
1	0	0	1	1	1	1	0	1	0	0	0
2	0	1	0	1	0	0	1	0	1	0	0
3	0	1	1	1	0	0	1	0	1	0	0
4	1	0	0	0	1	0	0	1	1	0	0
5	1	0	1	0	1	0	0	1	1	1	1
6	1	1	0	0	0	0	0	1	1	0	0
7	1	1	1	0	0	0	0	1	1	1	1

Table 1

SOP

$\bar{A}\bar{B}C\bar{A}B\bar{C}A\bar{B} + \bar{A}B\bar{C}A\bar{B}C A\bar{B}$
$+ \bar{A}B\bar{C}A B\bar{C}A\bar{B} + A\bar{B}C\bar{A}B\bar{C}A\bar{B} +$
$A\bar{B}C\bar{A}B\bar{C}A\bar{B} + \bar{A}B\bar{C}A\bar{B}\bar{C}A\bar{B}$

POS

~~$(A+B)$~~ - where outputs are 0

$-(\bar{A}+\bar{B}+\bar{C}+A+B+C+\bar{A}+B)(A+\bar{B}+\bar{C}+\bar{A}+B+C+\bar{A}+B)$

Table 2

SOP

$-(A\bar{B}C\bar{A}B\bar{C}\bar{A}\bar{B}C A\bar{B}) + (A\bar{B}\bar{C}\bar{A}\bar{B}C\bar{A}B\bar{C}\bar{A})$
$+ (A\bar{B}C\bar{A}\bar{B}\bar{C}\bar{A}B C A\bar{B})$

POS

~~$-(A+B+C)$~~

$(\bar{A}+\bar{B}+\bar{C}+A+B+C+\bar{A}+\bar{B}+\bar{C}+\bar{A})(\longrightarrow$
$(A+\bar{B}+C+A+B+C+\bar{A}+\bar{B}+C+\bar{A})\longrightarrow$
$(\bar{A}+B+\bar{C}+A+\bar{B}+C+A+B+\bar{C}+A)(\bar{A}+B+C+A+B+\bar{C}+A+\bar{B}+\bar{C}+\bar{A})$
$(A+\bar{B}+C+A+B+\bar{C}+\bar{A}+B+C+\bar{A})$