1)

A	B	C	D	S	A And B	C And D
0	0	0	0	0	0	0
0	0	0	1	0	0	0
0	0	1	0	0	0	0
0	0	1	1	0	0	1
0	1	0	0	1	0	0
0	1	0	1	1	0	0
0	1	1	0	1	0	0
0	1	1	1	1	0	1
1	0	0	0	1	0	0
1	0	0	1	1	0	0
1	0	1	0	1	0	0
1	0	1	1	1	0	1
1	1	0	0	0	1	0
1	1	0	1	0	1	0
1	1	1	0	0	1	0
1	1	1	1	0	1	1

2)

A	B	C	X
0	0	0	0
0	0	1	1
0	1	0	1
0	1	1	0
1	0	0	1
1	0	1	1
1	1	0	1
1	1	1	1

3)

B⊕C		y
0	1	1
1	0	1
0	1	1
1	0	1

A+y		x
0	1	1
1	1	1
0	1	1
1	1	1

$y = 1, 1, 1, 1$

$x = 1, 1, 1, 1$