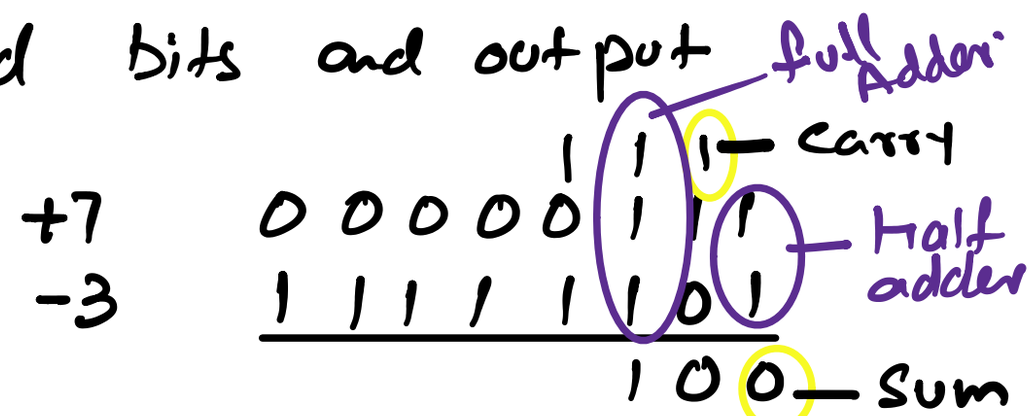
Adders

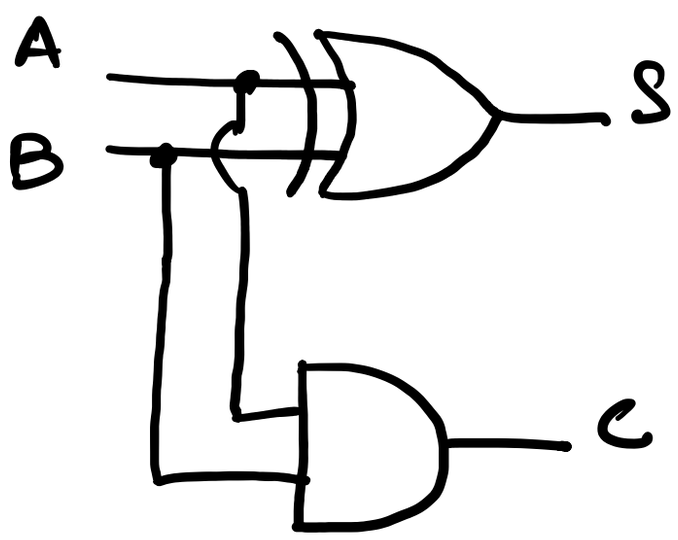
Sunday, 15 January 2023 3:23 PM

Circuits inside ALU that add bits and output Sum and Carry result.



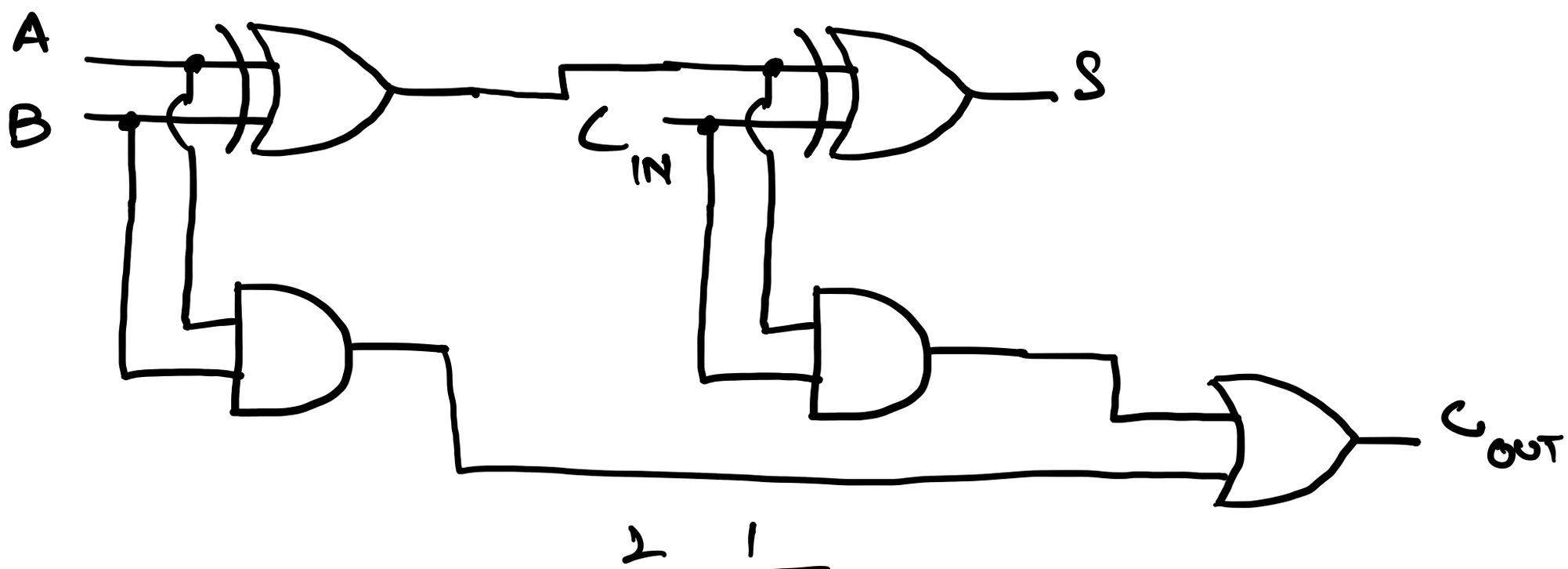
Those adders, which add 2 bits are called half adder.
Those adders, which add 3 bits are called full adder.

Half Adder:



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

Full Adder:



A	B	C_{IN}	2 C_{OUT}	1 S
0	0	0	0	0
0	0	1	0	1
0	1	0	0	1
0	1	1	1	0
1	0	0	0	1
1	0	1	1	0
1	1	0	1	0
1	1	1	1	1