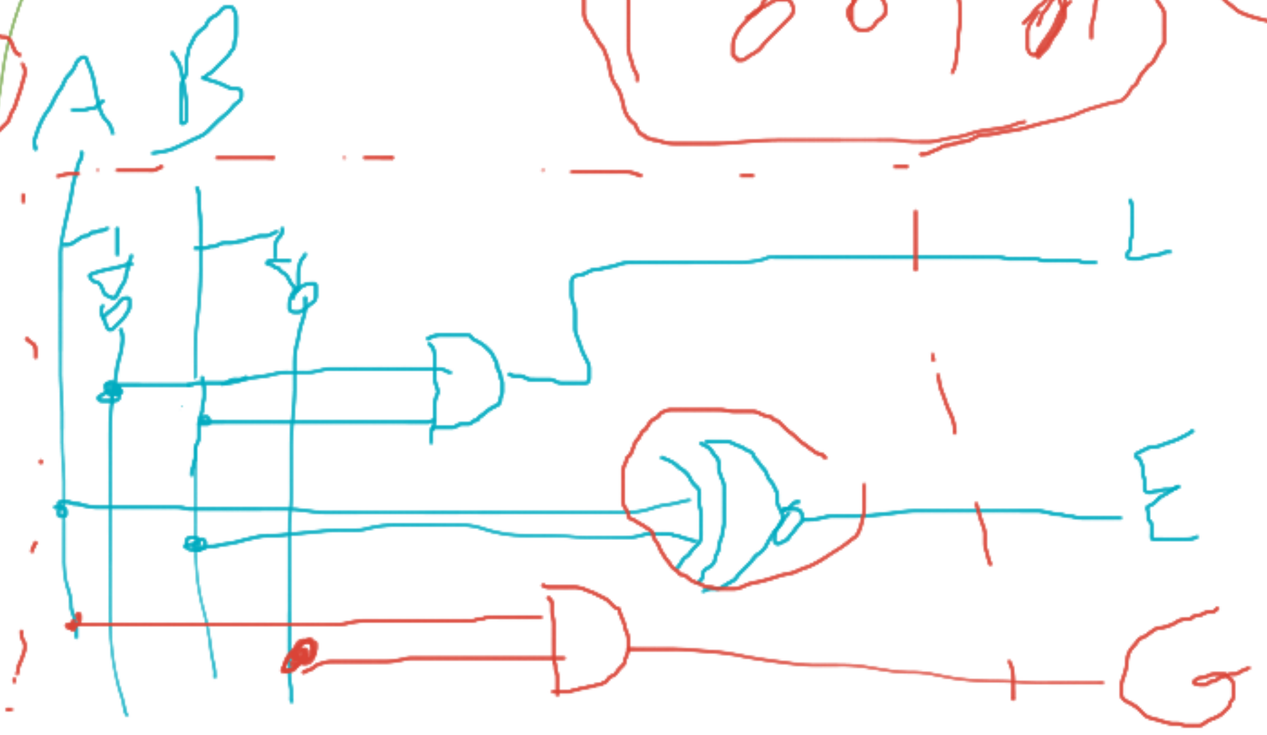
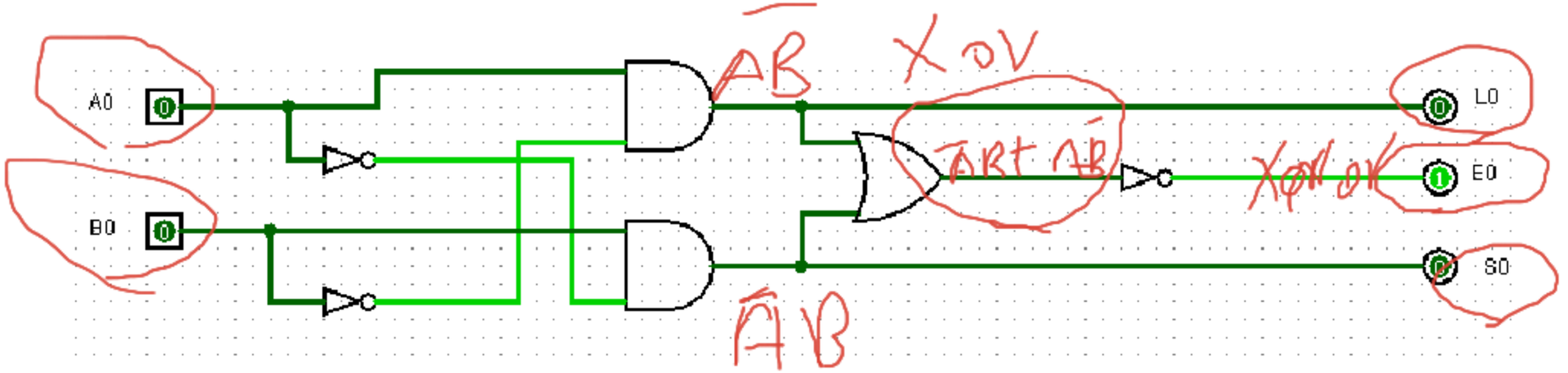
1-bit Comparator

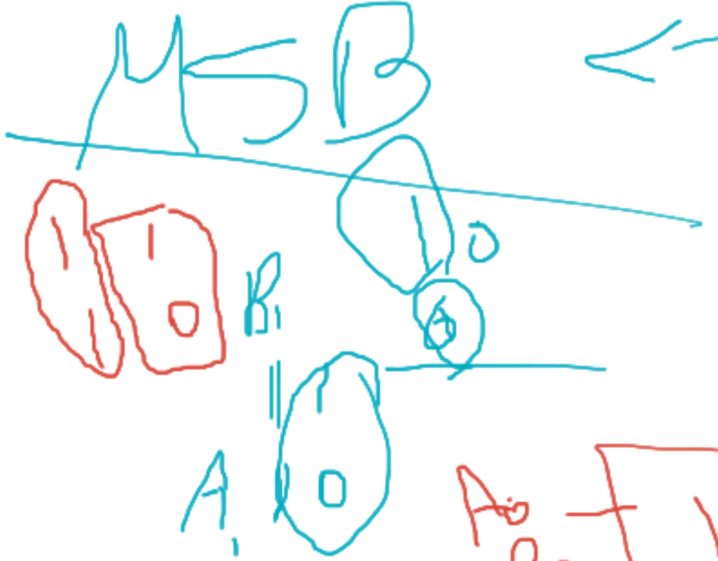
Signed

A	B	A<B (L)	A=B (E)	A>B (G)
0	0	0	1	0
0	1	1	0	0
1	0	0	0	1
1	1	0	1	0



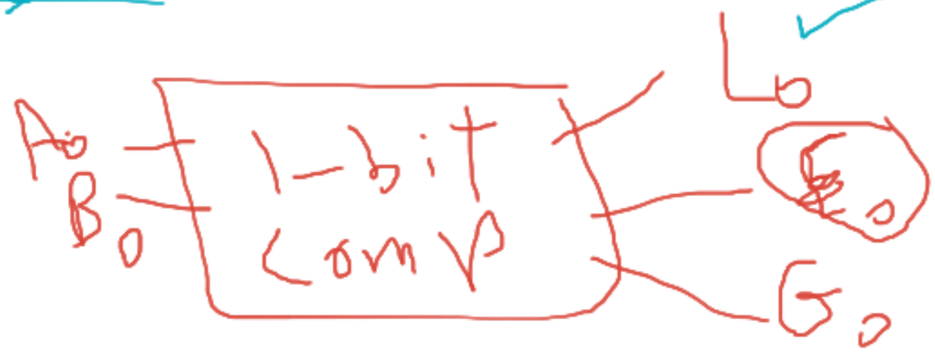

A0
B0
L0
E0
S0

4-bit Comparator



1. $E = E_0 \cdot E_1$

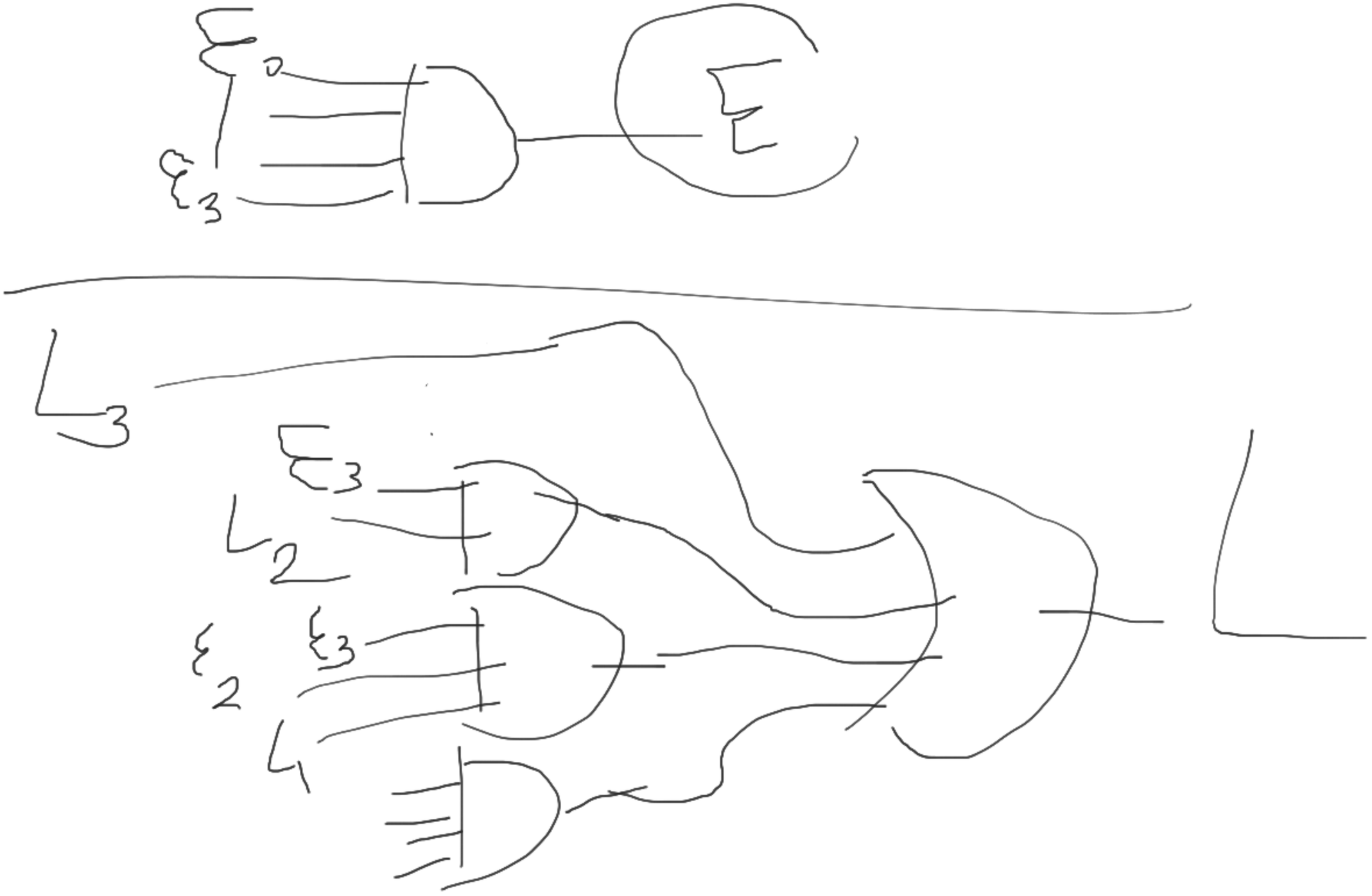
2. $L = L_1 + E \cdot L_0$ (A<B)

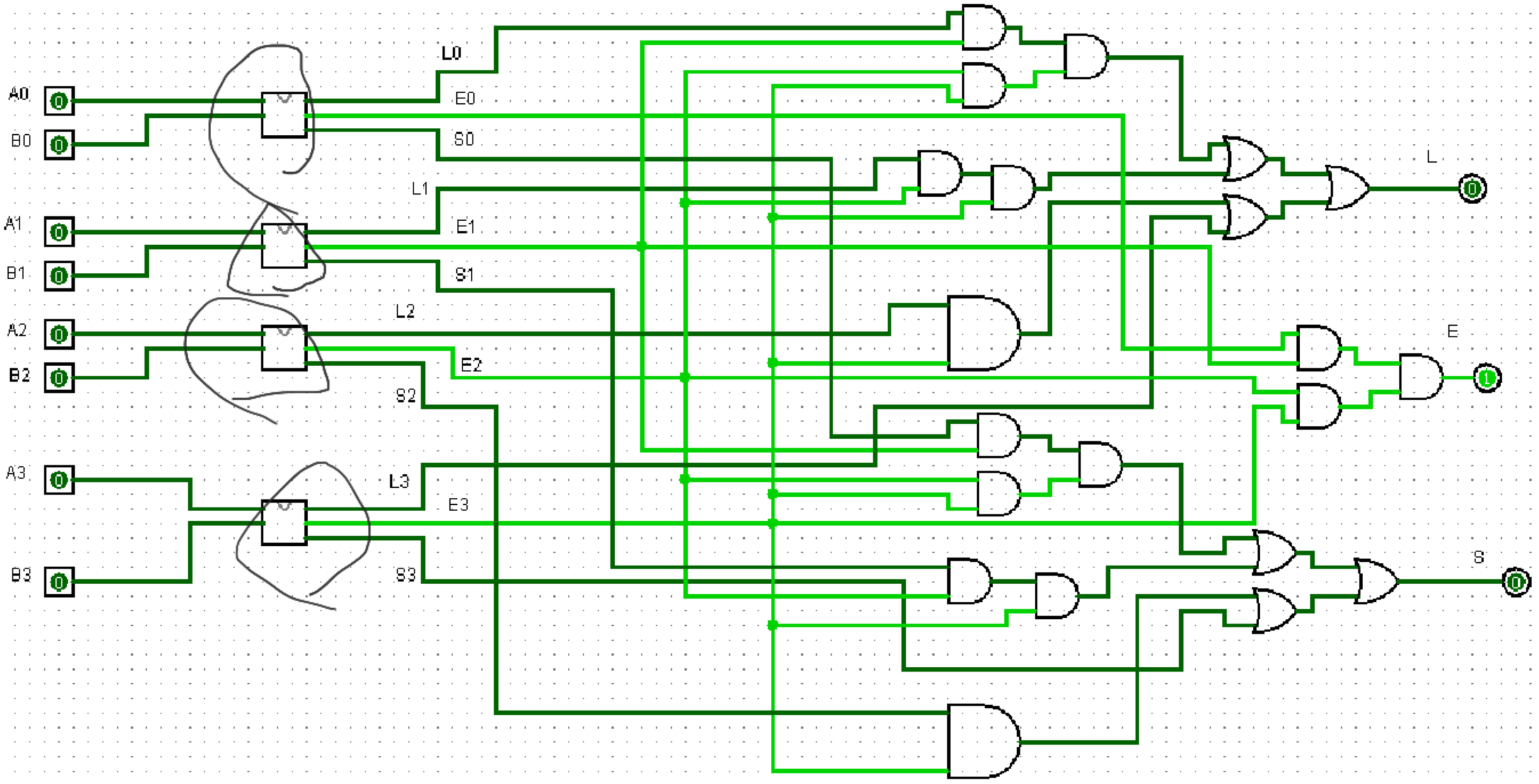


3. $G = G_1 + E_1 \cdot G_0$ (A>B)

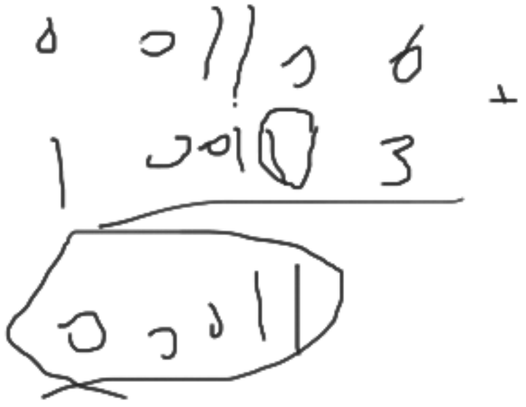
4. $E = E_6 E_5 E_4 E_3$

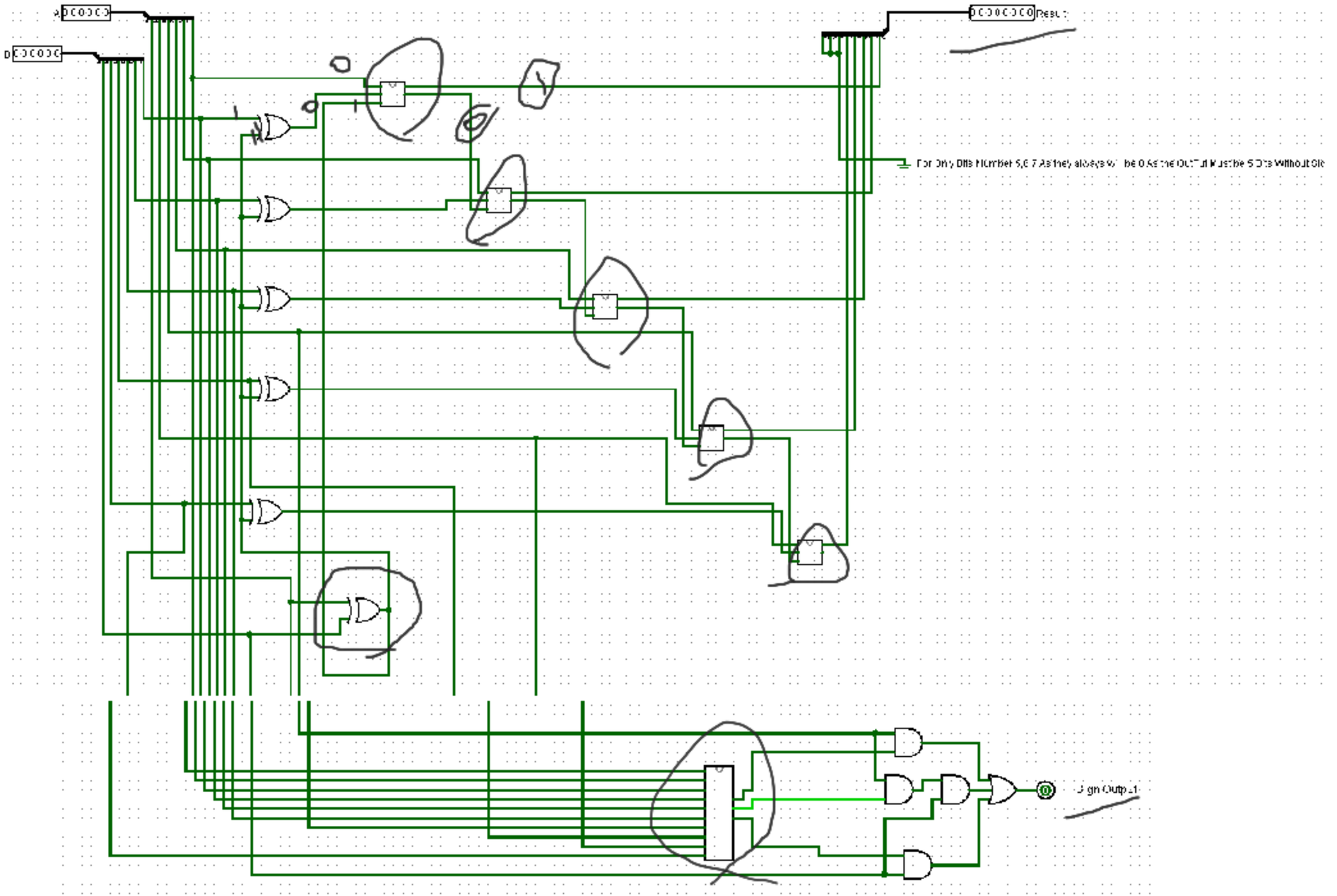
5. $L = L_3 + E_3 L_2 + E_3 E_2 L_1 + E_3 E_2 E_1 L_0$


D
E
ξ_3
L_3
ξ_3
L_2
ξ_3
ξ_2
L_1
L


A0
B0
A1
B1
A2
B2
A3
B3
L0
E0
S0
L1
E1
S1
L2
E2
S2
L3
E3
S3
L
E
S

4-bit signed Adder





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