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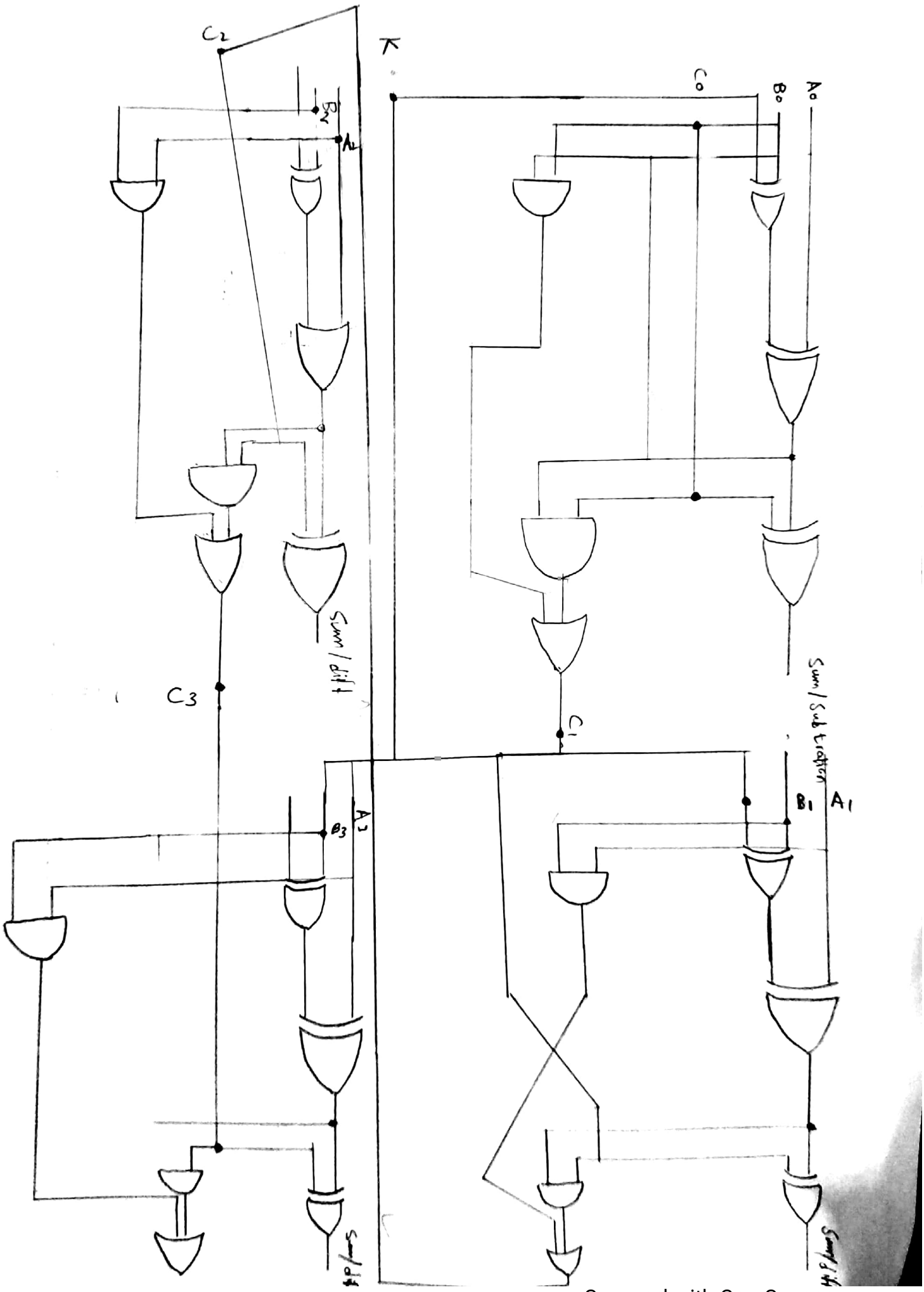

K	A_3	A_2	A_1	A_0	B_3	B_2	B_1	B_0	S_3/D_3	S_2/D_2	S_1/D_1	S_0/D_0	C_0	C_1	C_2	C_3	C_4
1	1	1	1	0	0	1	1	0	1	0	0	1	1	0	1	1	1
1	0	1	0	1	0	1	1	1	0	0	1	1	1	0	0	0	1
1	0	1	0	0	1	0	1	1	1	0	0	1	1	0	0	1	0
1	0	0	1	0	1	1	0	0	1	0	0	1	1	0	1	1	0
0	1	0	0	1	0	1	1	0	1	1	1	1	0	0	0	0	0
0	0	1	0	0	1	0	1	1	1	1	1	1	0	0	0	0	0
0	0	0	1	0	1	1	0	0	1	1	1	0	0	0	0	0	0
0	0	0	1	0	0	1	1	1	0	0	0	1	0	0	1	1	1
0	1	1	1	0	0	1	1	0	0	1	0	0	0	0	1	1	1
1	1	0	0	1	0	1	1	0	0	0	1	1	1	0	0	0	1

Boolean Expression

For Sn/Dn

$$SnDn = ((CBn \oplus K) \oplus An) \oplus Cn$$

For Carry (Cn+1):

$$Cn+1 = (An \cdot Bn) + ((Bn \oplus K) \oplus (An \cdot Cn))$$