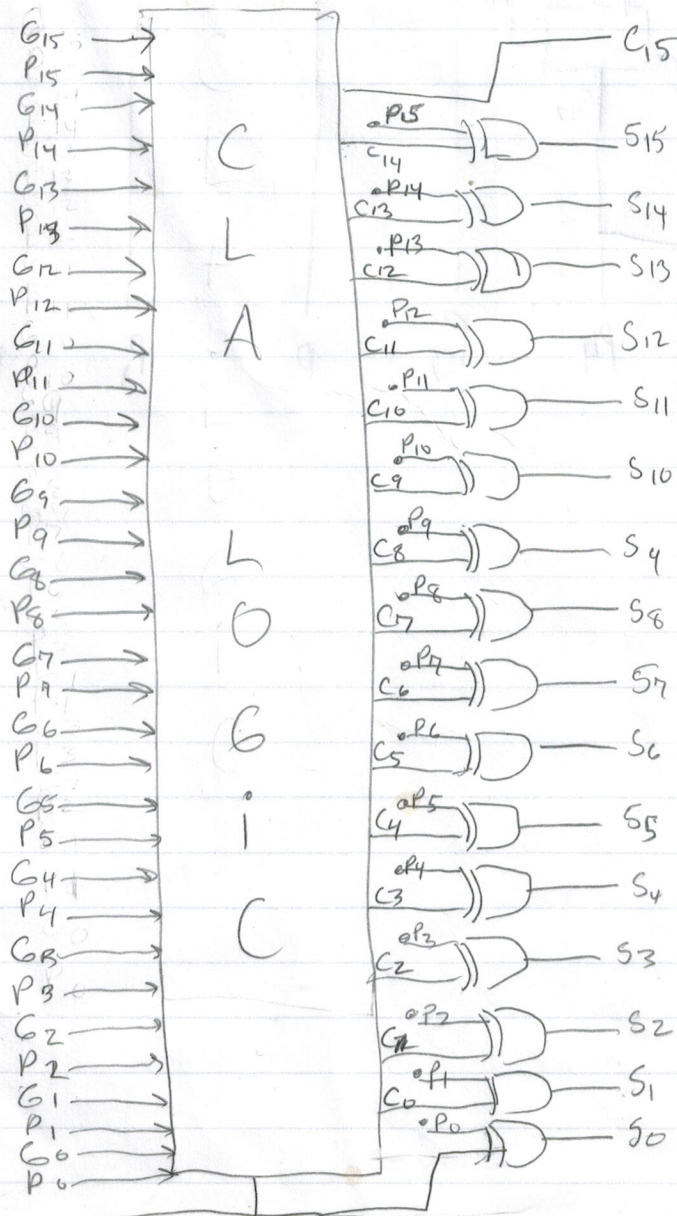
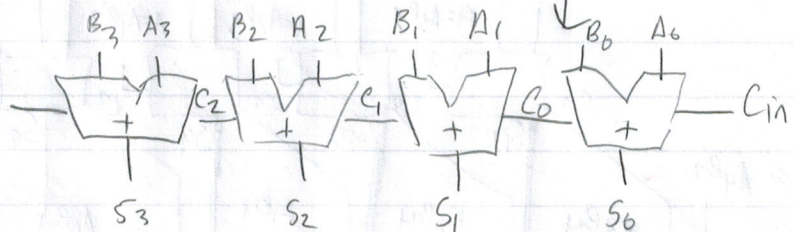
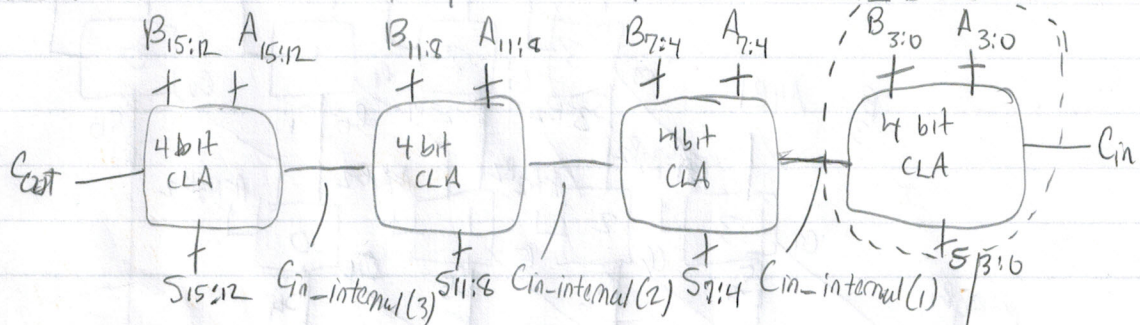


# Lab 2 - Part 1 - 16-bit CLA Adder



A	B	C <sub>in</sub>	C <sub>out</sub>	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

$$C_0 = AB + (A \oplus B) C_{in}$$

$$S = A \oplus B \oplus C_{in}$$

$$C_0 = \underbrace{P}_{AB} + \underbrace{G}_{A \oplus B} C_{in}$$

Generalized Expression

$$C_i = P_i + G_i C_{i-1}$$