

debounce ✓

adder.v

data data

an[3:0]

ses

disp.v

dp.

B A

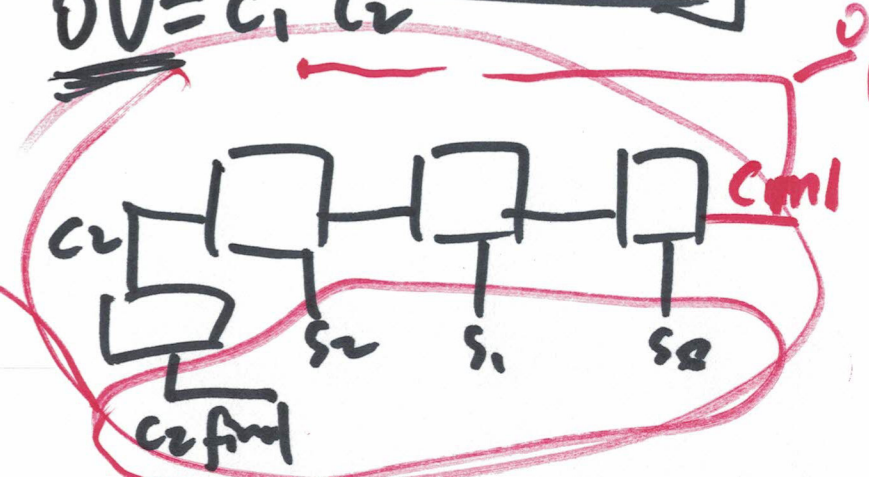
data
 $\{C_{cf}, s_4, s_3, s_2, s_1, s_0\}$

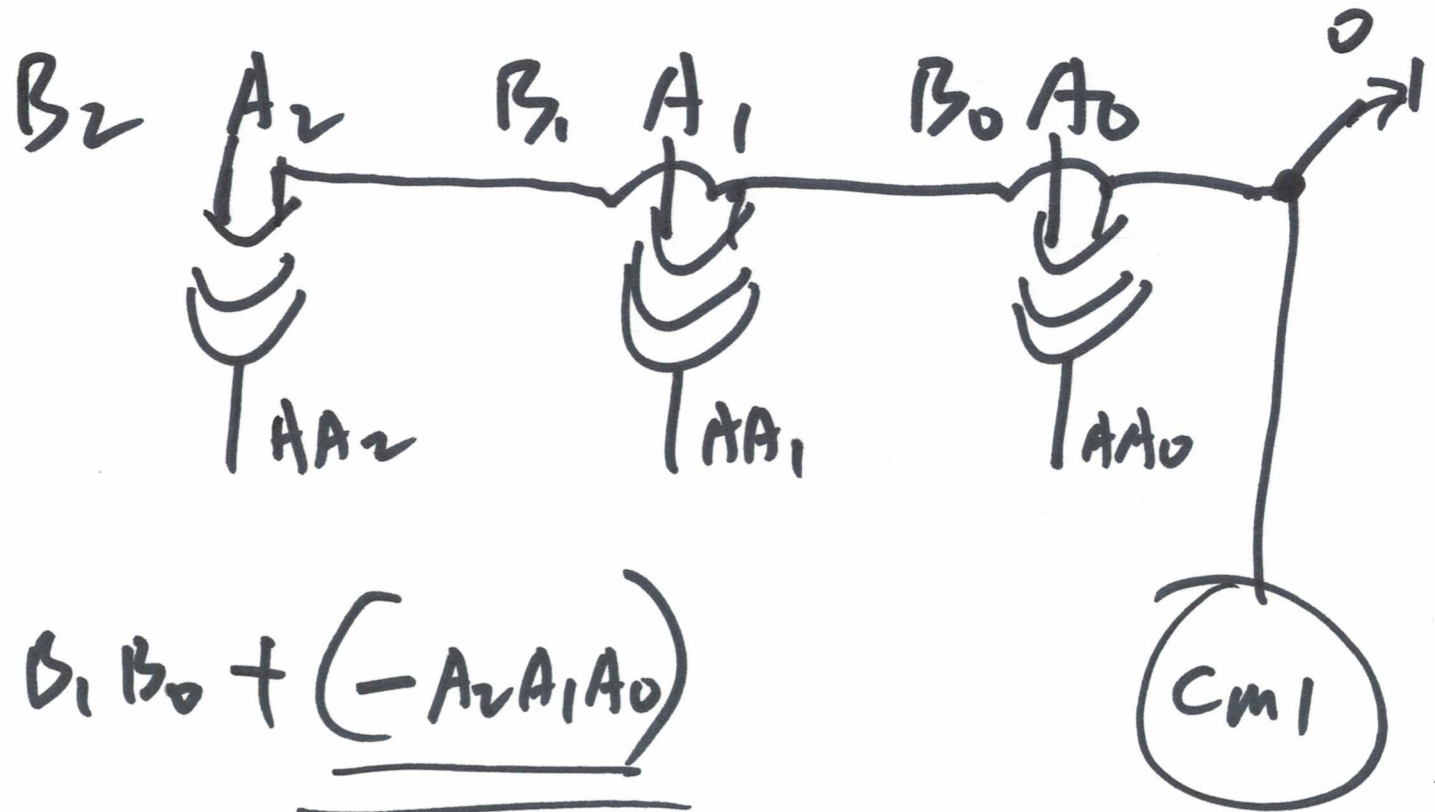
clk
 sw[15]
 Cmi
 SW[5:0]

led[4]
 $OV = C_1 \wedge C_2$

case(data)
 4'b1010: ses = 1
 if data[5] == 1
 & an[5] == 0
 an[5] == 2'b01

sign
 ov

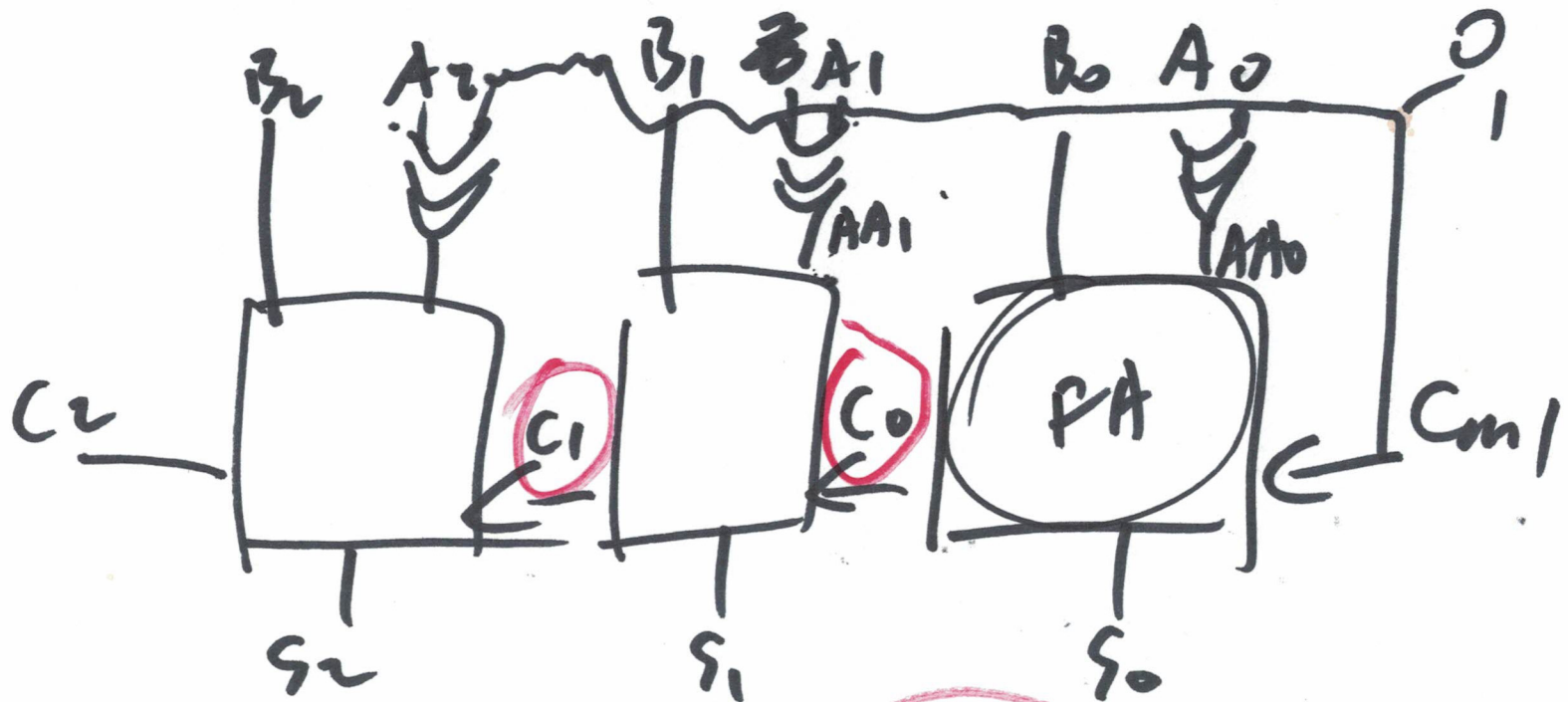




$$B_2 B_1 B_0 + \underline{\underline{(-A_2 A_1 A_0)}}$$

$$\begin{array}{ccc} A_2 & A_1 & A_0 \\ \oplus & \downarrow & \oplus \\ 1 & 1 & 1 \end{array}$$

$$\begin{array}{c} A \\ \oplus \\ 1 \\ \oplus \\ 1 \end{array} = \bar{A}$$



+3

011 011

100

-4

$$S_i = A_i \oplus B_i \oplus C_{in}$$

$$C_0 = (A_0 + B_0) C_{n1} + A_0 B_0$$