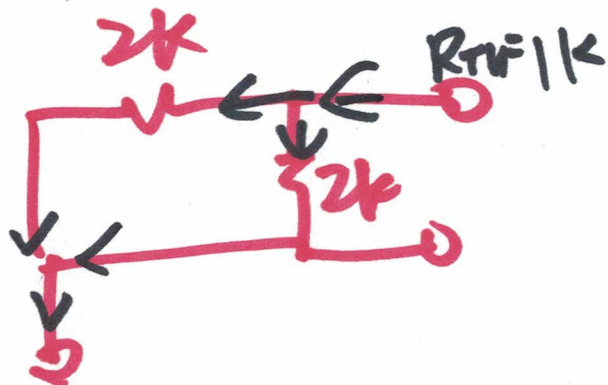
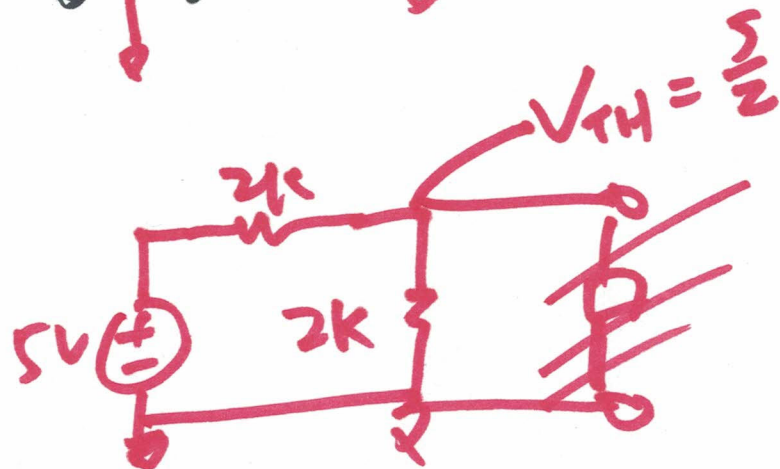
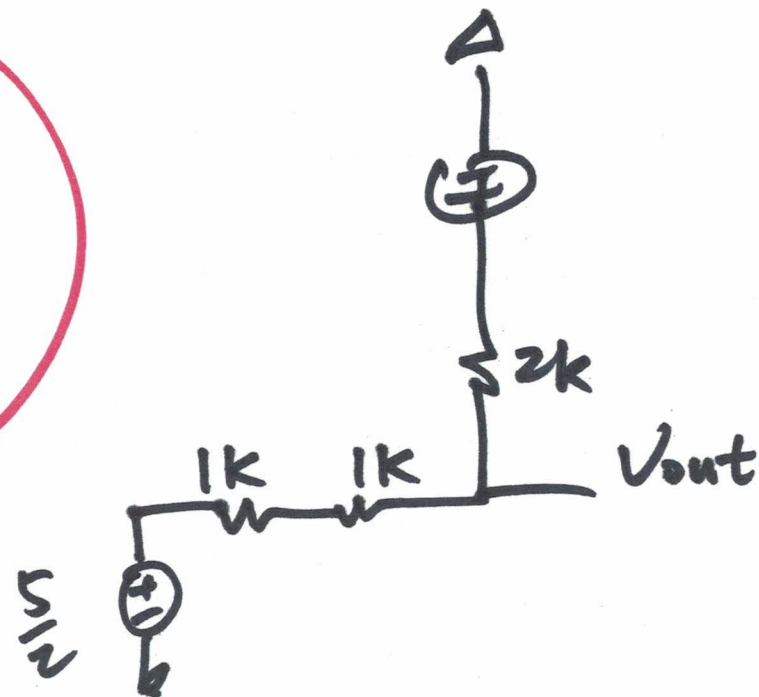
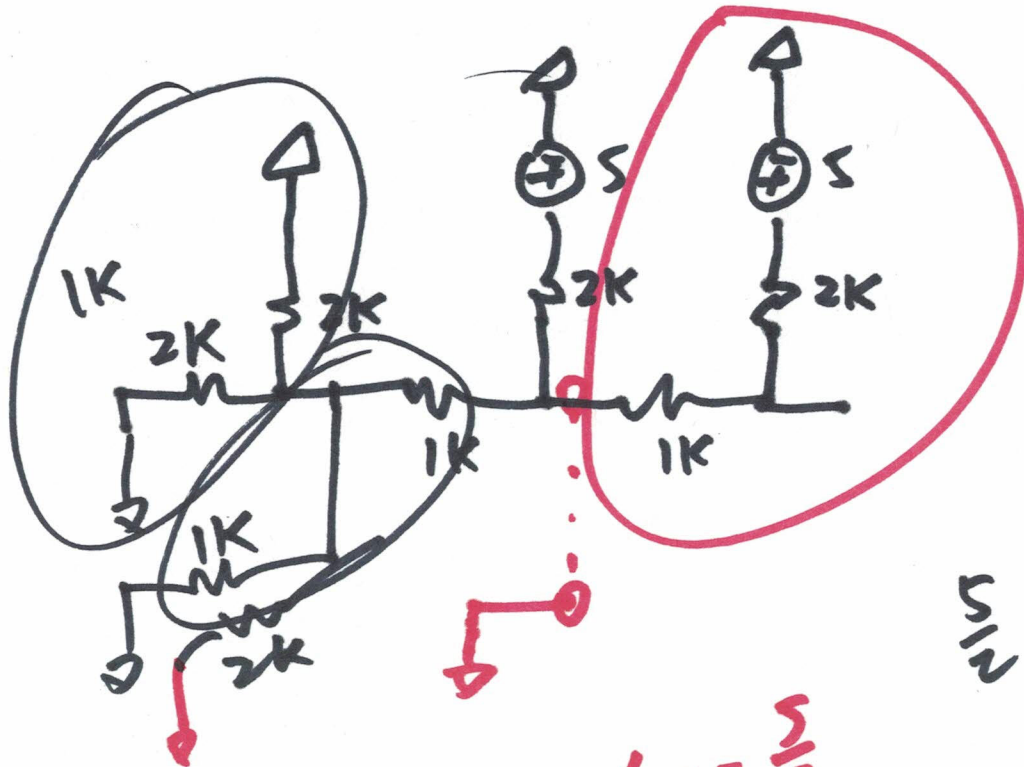




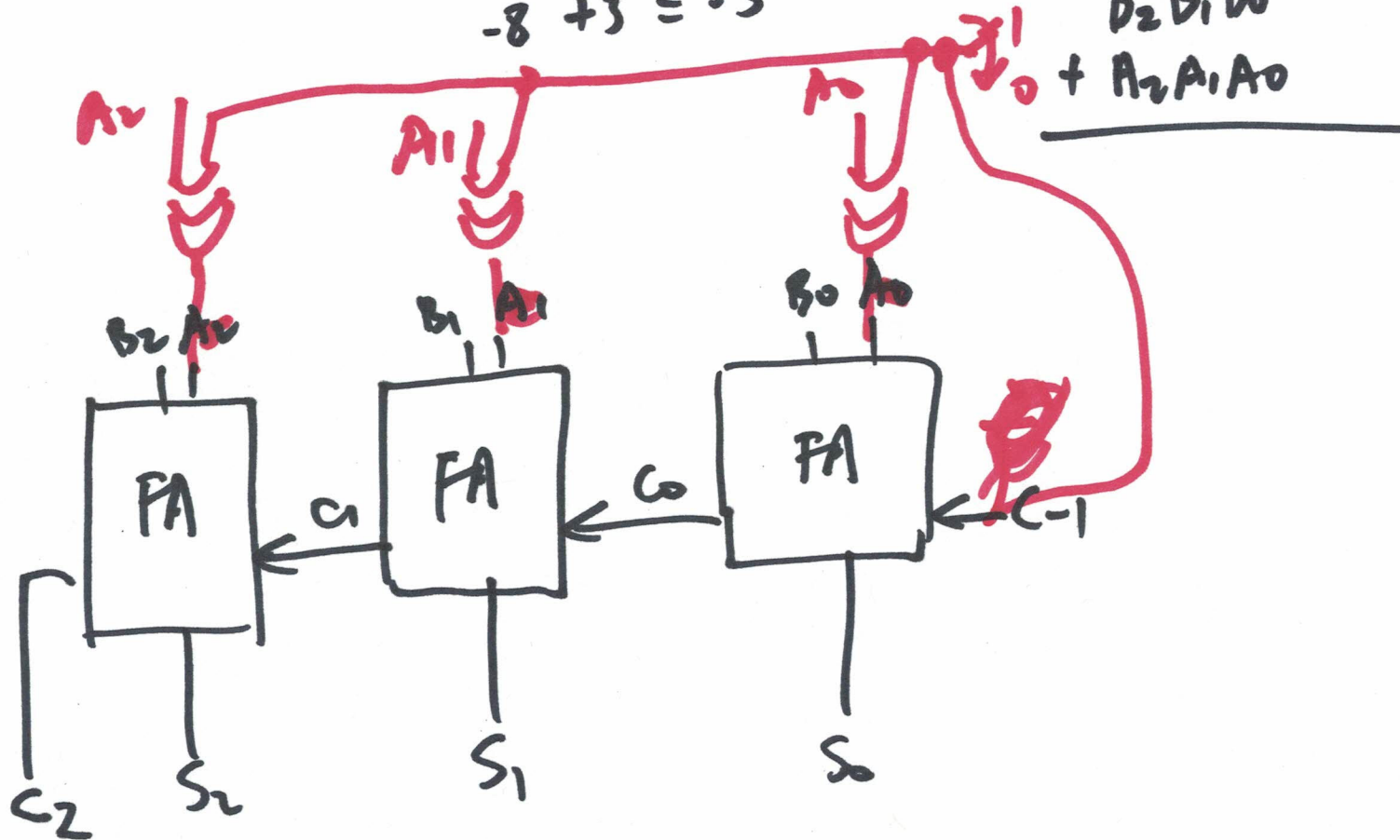
$$\begin{array}{r}
 +5 \quad 0101 \\
 -5 \quad 1010 \\
 \hline
 1011
 \end{array}$$

$$-8 + 3 = -5$$

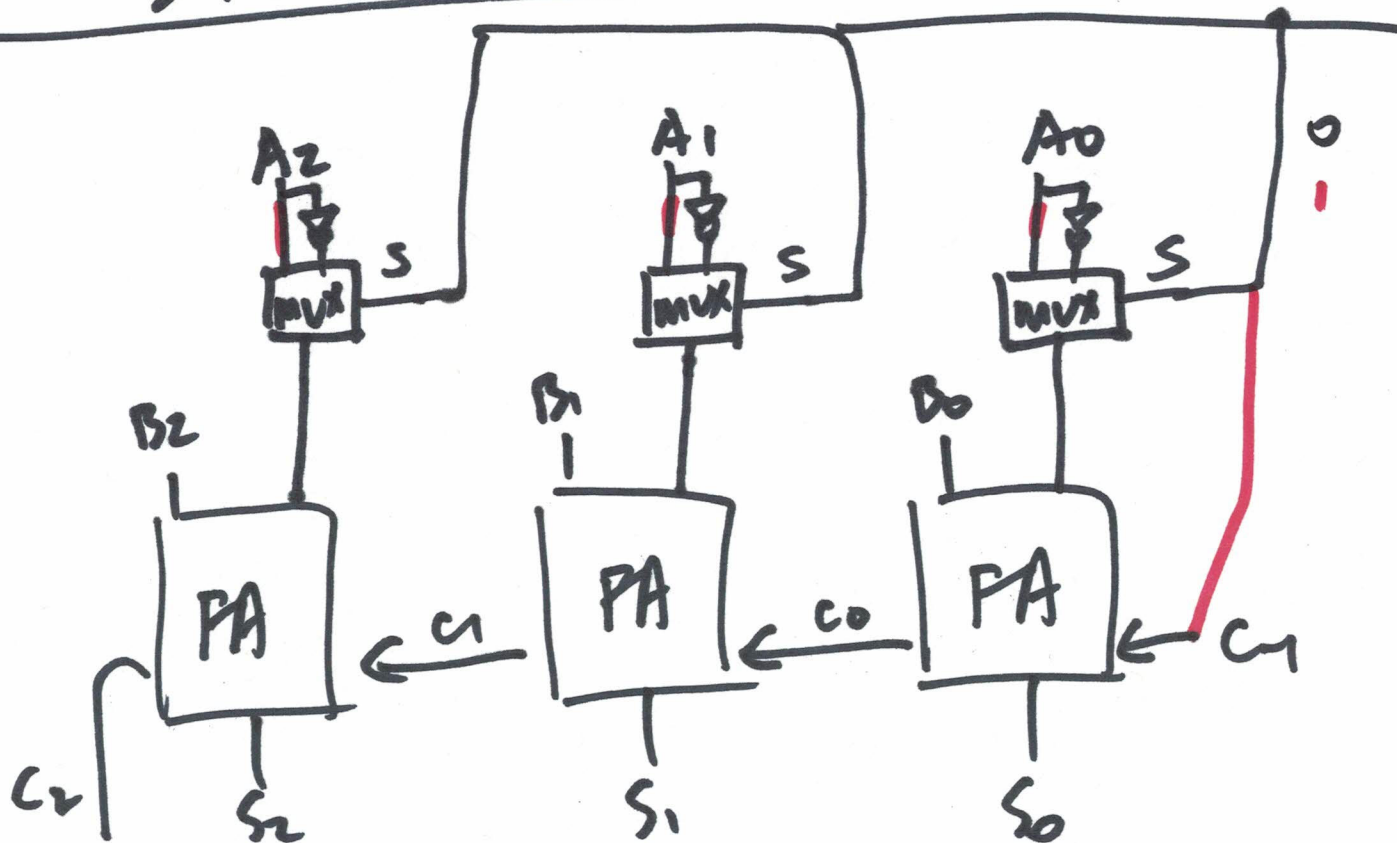
$$\begin{array}{rcl}
 0 \oplus 1 & = & 1 \\
 0 \oplus 0 & = & 0 \\
 \hline
 1 \oplus 1 & = & 0 \\
 1 \oplus 0 & = & 1
 \end{array}
 \quad
 \begin{array}{l}
 0 \oplus A = A \\
 1 \oplus A = \bar{A}
 \end{array}$$

$$B_2 B_1 B_0$$

$$+ A_2 A_1 A_0$$



Solution 2: Using a ~~2~~ MUX

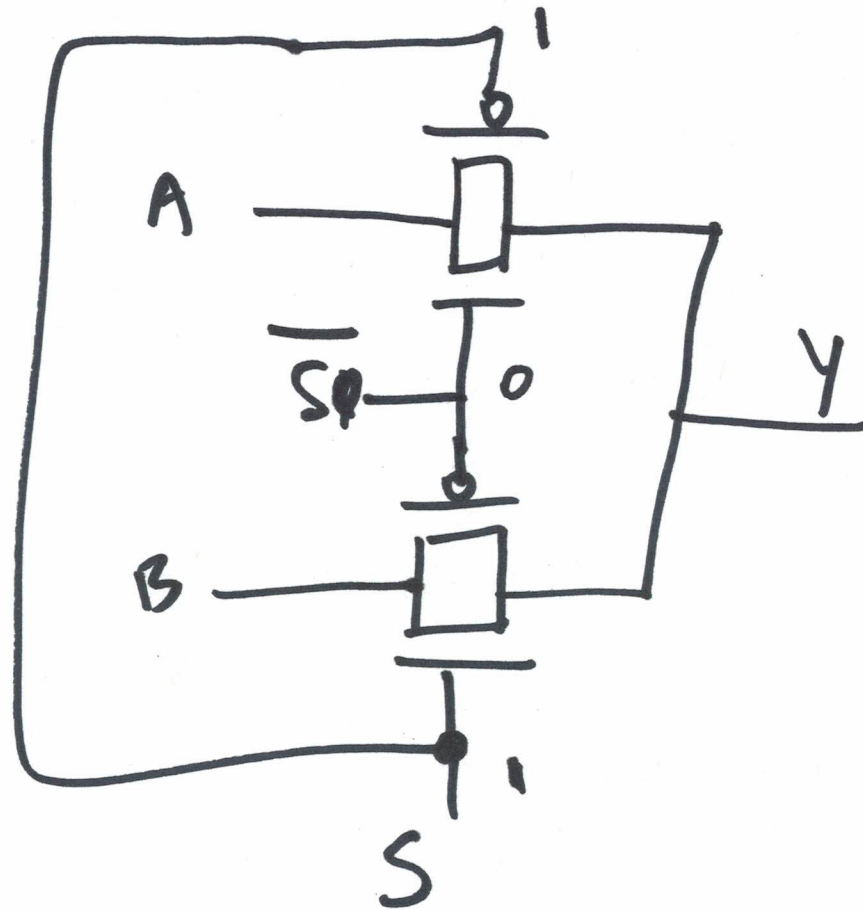


S	$\bar{A}$	A	Y
0	0	0	0
0	0	1	1
0	1	0	1
0	1	1	0
1	0	0	1
1	0	1	0
1	1	0	0
1	1	1	1



$$Y = \bar{S}A + \bar{A}A + S\bar{A}$$

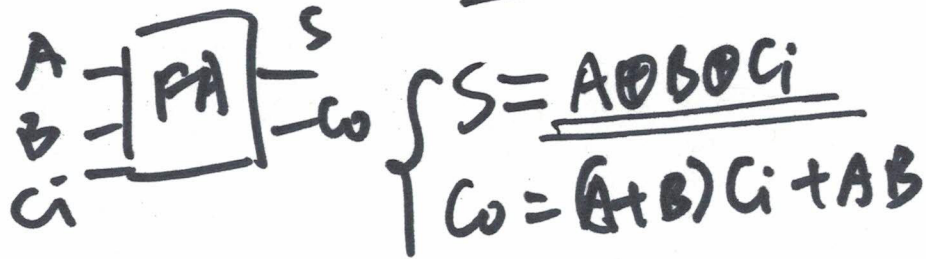
(3)



when $S=1$, $Y=B$

when $S=0$, $Y=A$

High Speed FA



$$\begin{cases}
 S = (A+B+C_i) \overline{C_o} + \underline{ABC_i} \\
 \overline{C_o} = (\overline{A+B}) \cdot (\overline{A \cdot B} + \overline{C_i})
 \end{cases}
 , \quad \underline{C_o} = (A+B)C_i + AB$$

