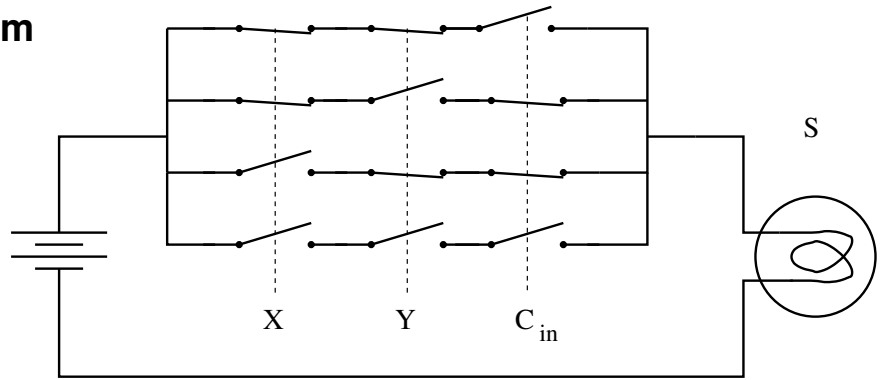


X	Y	C _{in}	S
0	0	0	0
0	0	1	1
0	1	0	1
0	1	1	0
1	0	0	1
1	0	1	0
1	1	0	0
1	1	1	1

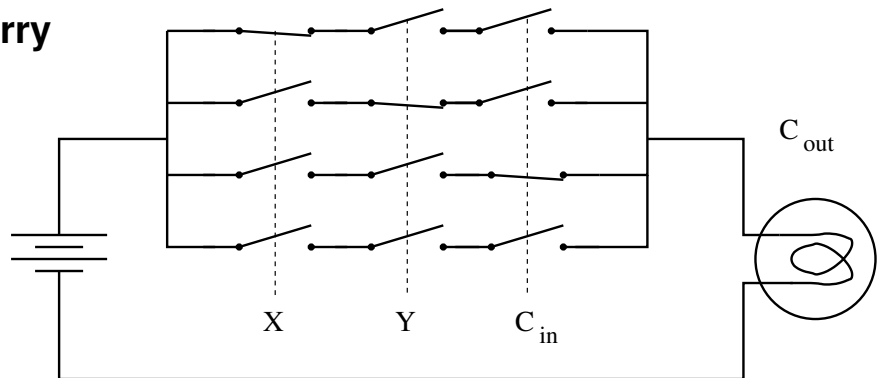
Sum



$$S = X'Y'C + X'YC' + XY'C' + XYZ$$

X	Y	C _{in}	C _{out}
0	0	0	0
0	0	1	0
0	1	0	0
0	1	1	1
1	0	0	0
1	0	1	1
1	1	0	1
1	1	1	1

Carry



$$C = X'YC + XY'C + XYC' + XYZ$$