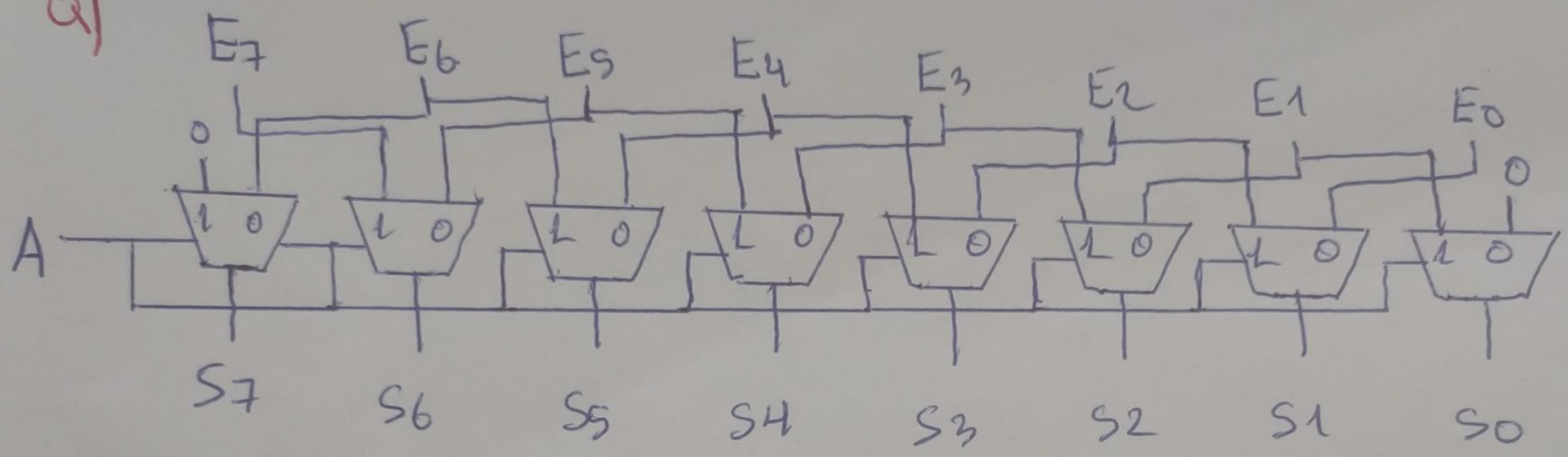
1

a)



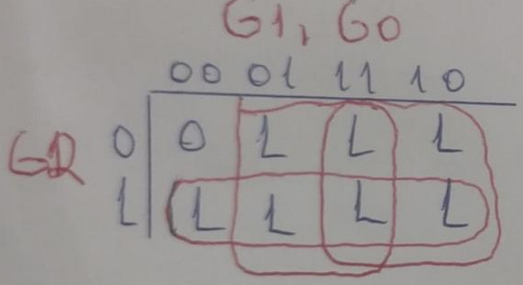
b) Se $A=0$, então desloca a entrada para a esquerda
Se $A=1$, então desloca a entrada para a direita

c)

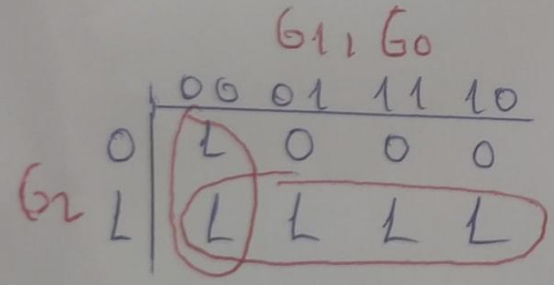
	Entrada (E)		Saída (S)		
A	bin	dec	bin	dec	
0	01110010	114	11100100	228	$\leftarrow S = 2E$
1	01101101	109	00110110	54	$\leftarrow S = \frac{E}{2}$

(2)

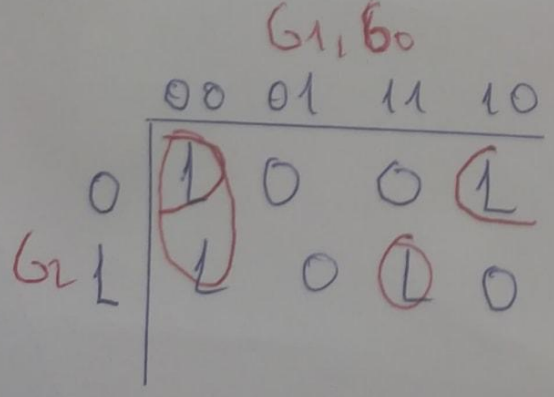
G2	G1	G0	a	b	c	d	e	f	g	Letra
0	0	0	0	1	1	1	1	1	0	U
0	0	1	1	0	0	0	1	1	1	F
0	1	1	1	0	0	0	1	1	1	F
0	1	0	1	0	1	1	0	1	1	S
1	1	0	1	1	0	1	1	0	1	2
1	1	1	1	1	1	1	1	1	0	0
1	0	1	1	1	0	1	1	0	1	2
1	0	0	1	1	1	1	1	1	0	0



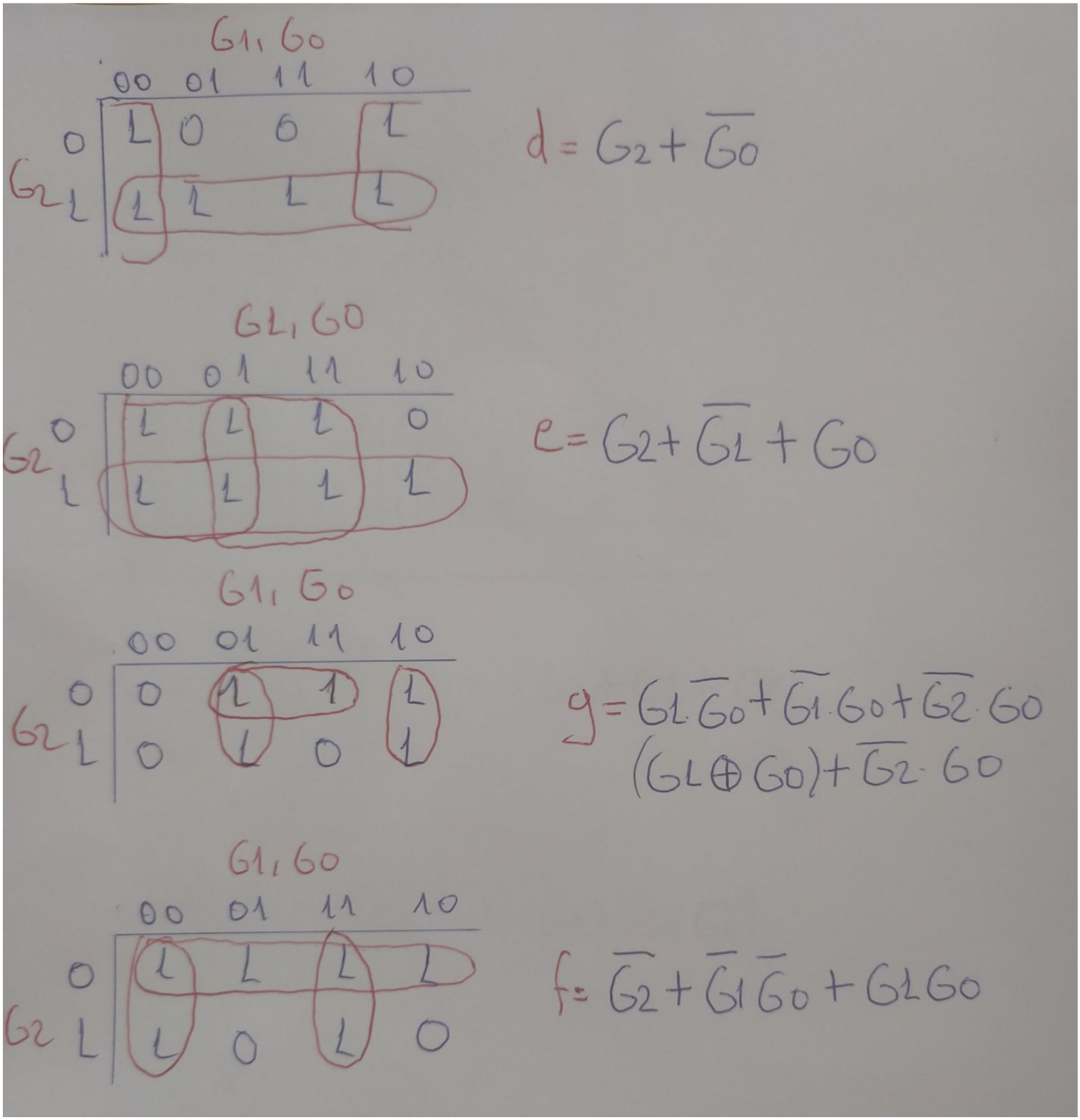
$a = G_2 + G_1 + G_0$

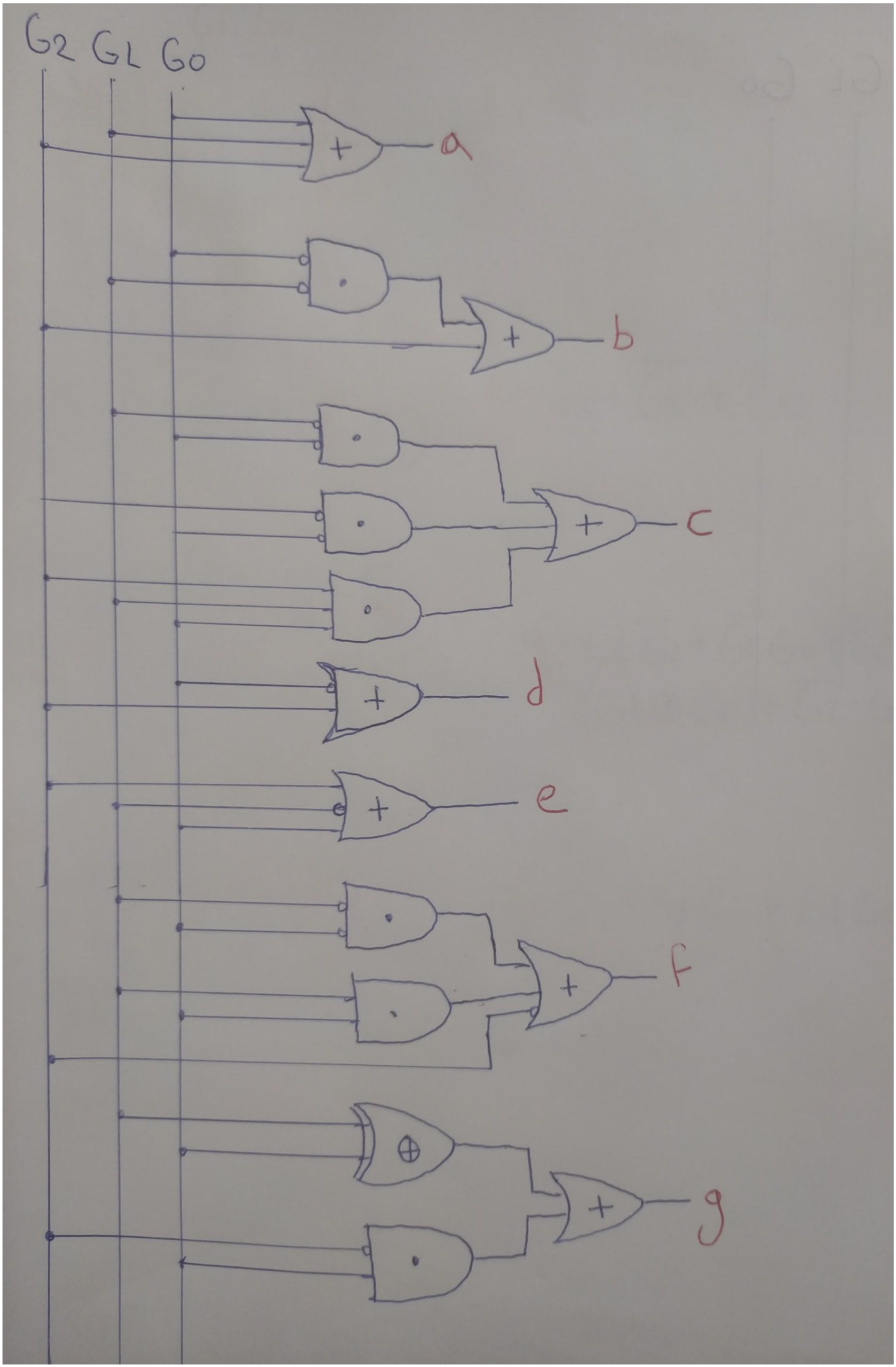


$b = G_2 + (\overline{G_0} \cdot \overline{G_1})$



$c = (\overline{G_1} \cdot \overline{G_0}) + (\overline{G_2} \cdot \overline{G_0}) + G_2 \cdot G_1 \cdot G_0$


G1, G0
00 01 11 10
G2
0 1 0 0 1
1 1 1 1 1
d = G2 + $\overline{G0}$
G2, G0
00 01 11 10
G2
0 1 1 1 0
1 1 1 1 1
e = G2 + $\overline{G1}$ + G0
G1, G0
00 01 11 10
G2
0 0 1 1 1
1 0 1 0 1
g = G1 $\overline{G0}$ + $\overline{G1}$ G0 + $\overline{G2}$ G0
(G1 ⊕ G0) + $\overline{G2}$ G0
G1, G0
00 01 11 10
G2
0 1 1 1 1
1 1 0 1 0
f = $\overline{G2}$ + $\overline{G1}$ $\overline{G0}$ + G1 G0


G2 G1 G0
a
b
c
d
e
f
g