

# DOCUMENTAÇÃO TP1

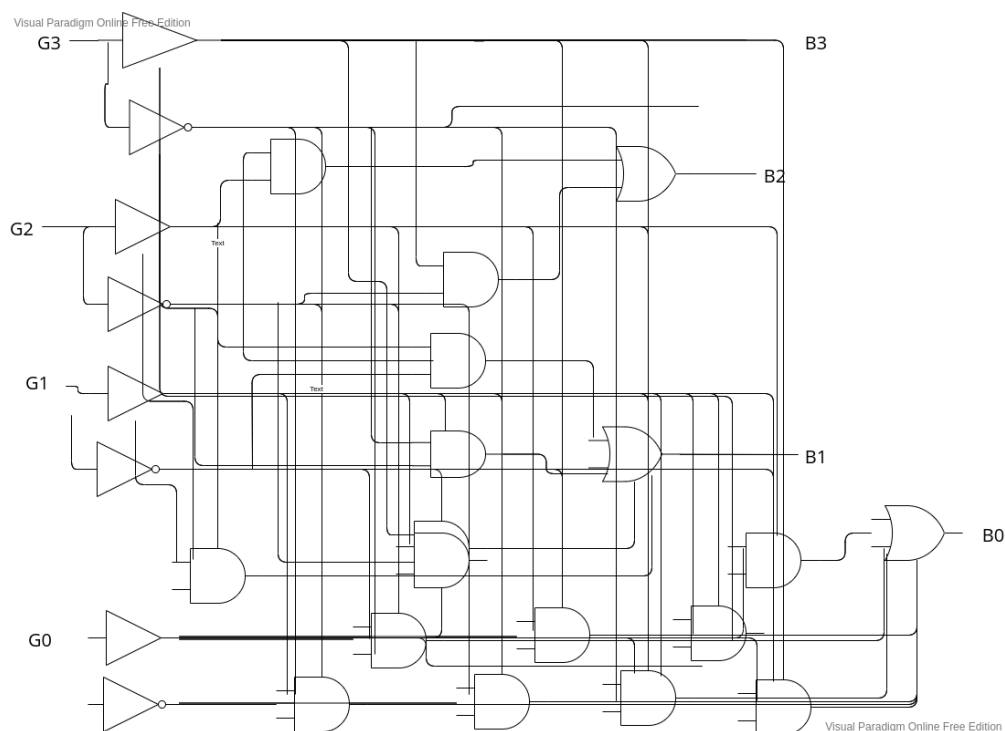
## 1) FORMA CANÔNICA

- **B0:**  $\Sigma(8,9,10,11,12,13,14,15)$
- **B1:**  $\Sigma(4,5,6,7,12,13,14,15)$
- **B2:**  $\Sigma(2,3,6,7,10,11,14,15)$
- **B3:**  $\Sigma(1,3,5,7,9,11,13,15)$

## 2) PRODUTO DAS SOMAS

- $b3 = (g3);$
- $b2 = (!g3 \& g2) \mid (g3 \& !g2);$
- $b1 = (!g3 \& g2 \& !g1) \mid (!g3 \& !g2 \& g1) \mid (g3 \& !g2 \& !g1) \mid (g3 \& g2 \& g1);$
- $b0 = (!g3 \& g2 \& !g1 \& !g0) \mid (!g3 \& !g2 \& g1 \& !g0) \mid (!g3 \& !g2 \& !g1 \& g0) \mid (!g3 \& g2 \& g1 \& g0) \mid (g3 \& !g2 \& !g1 \& !g0) \mid (g3 \& g2 \& g1 \& !g0) \mid (g3 \& g2 \& !g1 \& g0) \mid (g3 \& !g2 \& g1 \& g0);$

## 3) DESENHO DO CIRCUITO



#### 4) ONDAS DOS CASOS DE TESTE

bin_out[3:0]	0	1	10	11	100	101	110	111	1000	1001	1010	1011	1100	1101	1110	1111
gray_in[3:0]	0	1	11	10	110	111	101	100	1100	1101	1111	1110	1010	1011	1001	1000