



X, q_2, q_1, q_0	C	B	A	q_2^+, q_1^+, q_0^+	Dec
0 0 0 0		1	1	0 1 1	3
0 0 0 1			1	0 0 0	0
0 0 1 0	1	1	1	1 0 1	5
0 0 1 1			1	0 1 0	2
0 1 0 0		1	1	1 1 1	7
0 1 0 1			1	1 0 0	4
0 1 1 0	1	1	1	0 0 1	1
0 1 1 1			1	1 1 0	6
1 0 0 0			1	0 0 1	1
1 0 0 1		1	1	0 1 0	2
1 0 1 0			1	0 1 1	3
1 0 1 1	1	1	1	1 0 0	4
1 1 0 0			1	1 0 1	5
1 1 0 1			1	1 1 0	6
1 1 1 0			1	1 1 1	7
1 1 1 1			1	0 0 0	0

$$A = 1$$

$$B = Xq_0 + \overline{X}\overline{q_0} = \overline{X \oplus q_0}$$

$$C = Bq_1 + \overline{q_1} \overline{X} \overline{q_0}$$

