

	Q_4	Q_3	Q_2	Q_1	mQ_4	mQ_3	mQ_2	mQ_1
0-	0	0	0	0	0	0	0	1
1-	0	0	0	1	0	0	1	0
2-	0	0	1	0	0	0	1	1
3-	0	0	1	1	0	1	0	0
4-	0	1	0	0	0	1	0	1
5-	0	1	0	1	0	1	1	0
6-	0	1	1	0	0	1	1	1
7-	0	1	1	1	1	0	0	0
8-	1	0	0	0	1	0	0	1
9-	1	0	0	1	1	0	1	0
10-	1	0	1	0	1	0	1	1
11-	1	0	1	1	1	1	0	0
12-	1	1	0	0	1	1	0	1
13-	1	1	0	1	0	0	0	0
14								
15								

mQ_1	$Q_4 Q_3$	00	01	11	10
$Q_4 Q_3$	00	1	0	0	1
	01	1	0	0	1
	11	1	0	x	x
	10	1	0	0	1

$$mQ_1 = \bar{Q}_2 \bar{Q}_1 + Q_2 \bar{Q}_1$$

mQ_2	$Q_4 Q_3$	00	01	11	10
$Q_4 Q_3$	00	0	1	0	1
	01	0	1	0	1
	11	0	0	x	x
	10	0	1	0	1

$$\begin{aligned}
 mQ_2 = & \bar{Q}_4 \bar{Q}_3 Q_1 + \\
 & + \bar{Q}_3 \bar{Q}_1 Q_1 + \\
 & + \cancel{Q_3 \bar{Q}_2 \bar{Q}_1} + Q_2 \bar{Q}_1 \\
 & + \cancel{Q_4 \bar{Q}_2 \bar{Q}_1}
 \end{aligned}$$