|  | **Q3** | **Q2** | **Q1** | **Q0** | ***Q3\**** | ***Q2\**** | ***Q1\**** | ***Q0\**** | **J3** | **K3** | **J2** | **K2** | **J1** | **K1** | **J0** | **K0** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 0 | 0 | 0 | 0 | 0 | *0* | *0* | *0* | *1* | 0 | \* | 0 | \* | 0 | \* | 1 | \* |
| 1 | 0 | 0 | 0 | 1 | *0* | *0* | *1* | *0* | 0 | \* | 0 | \* | 1 | \* | \* | 1 |
| 2 | 0 | 0 | 1 | 0 | *0* | *0* | *1* | *1* | 0 | \* | 0 | \* | \* | 0 | 1 | \* |
| 3 | 0 | 0 | 1 | 1 | *0* | *1* | *1* | *0* | 0 | \* | 1 | \* | \* | 0 | \* | 1 |
| 4 | ... | ... | ... | ... | *...* | *...* | *...* | *...* | ... | ... | ... | ... | ... | ... | ... | ... |
| 5 | ... | ... | ... | ... | *...* | *...* | *...* | *...* | ... | ... | ... | ... | ... | ... | ... | ... |
| 6 | 0 | 1 | 1 | 0 | *1* | *0* | *0* | *1* | 1 | \* | \* | 1 | \* | 1 | 1 | \* |
| 7 | ... | ... | ... | ... | *...* | *...* | *...* | *...* | ... | ... | ... | ... | ... | ... | ... | ... |
| 8 | ... | ... | ... | ... | *...* | *...* | *...* | *...* | ... | ... | ... | ... | ... | ... | ... | ... |
| 9 | 1 | 0 | 0 | 1 | *1* | *1* | *0* | *0* | \* | 0 | 1 | \* | 0 | \* | \* | 1 |
| 10 | ... | ... | ... | ... | *...* | *...* | *...* | *...* | ... | ... | ... | ... | ... | ... | ... | ... |
| 11 | ... | ... | ... | ... | *...* | *...* | *...* | *...* | ... | ... | ... | ... | ... | ... | ... | ... |
| 12 | 1 | 1 | 0 | 0 | *1* | *1* | *0* | *1* | \* | 0 | \* | 0 | 0 | \* | 1 | \* |
| 13 | 1 | 1 | 0 | 1 | *1* | *1* | *1* | *0* | \* | 0 | \* | 0 | 1 | \* | \* | 1 |
| 14 | 1 | 1 | 1 | 0 | *1* | *1* | *1* | *1* | \* | 0 | \* | 0 | \* | 0 | 1 | \* |
| 15 | 1 | 1 | 1 | 1 | *0* | *0* | *0* | *0* | \* | 1 | \* | 1 | \* | 1 | \* | 1 |

J3 = q2

| q3q2 \ q1q0 | 00 | 01 | 11 | 10 |
| --- | --- | --- | --- | --- |
| 00 | 0 | 0 | 0 | 0 |
| 01 | \* | \* | \* | 1 |
| 11 | \* | \* | \* | \* |
| 10 | - | \* | - | - |

K3 = q1q0

| q3q2 \ q1q0 | 00 | 01 | 11 | 10 |
| --- | --- | --- | --- | --- |
| 00 | \* | \* | \* | \* |
| 01 | - | - | - | \* |
| 11 | 0 | 0 | 1 | 0 |
| 10 | - | \* | - | - |

J2 = q3 + q1q0

| q3q2 \ q1q0 | 00 | 01 | 11 | 10 |
| --- | --- | --- | --- | --- |
| 00 | 0 | 0 | 1 | 0 |
| 01 | - | - | - | \* |
| 11 | \* | \* | \* | \* |
| 10 | - | 1 | - | - |

K2 = q1q0 + ~q3

| q3q2 \ q1q0 | 00 | 01 | 11 | 10 |
| --- | --- | --- | --- | --- |
| 00 | \* | \* | \* | \* |
| 01 | - | - | - | 1 |
| 11 | 0 | 0 | 1 | 0 |
| 10 | - | \* | - | - |

J1 = ~q3~q2q0 + q3q2q0

| q3q2 \ q1q0 | 00 | 01 | 11 | 10 |
| --- | --- | --- | --- | --- |
| 00 | 0 | 1 | \* | \* |
| 01 | - | - | - | \* |
| 11 | 0 | 1 | \* | \* |
| 10 | - | 0 | - | - |

K1 = ~q3q2 + q3q1q0

| q3q2 \ q1q0 | 00 | 01 | 11 | 10 |
| --- | --- | --- | --- | --- |
| 00 | \* | \* | 0 | 0 |
| 01 | - | - | - | 1 |
| 11 | \* | \* | 1 | 0 |
| 10 | - | \* | - | - |

J0 = 1

| q3q2 \ q1q0 | 00 | 01 | 11 | 10 |
| --- | --- | --- | --- | --- |
| 00 | 1 | \* | \* | 1 |
| 01 | - | - | - | 1 |
| 11 | 1 | \* | \* | 1 |
| 10 | - | \* | - | - |

K0 = 1

| q3q2 \ q1q0 | 00 | 01 | 11 | 10 |
| --- | --- | --- | --- | --- |
| 00 | \* | 1 | 1 | \* |
| 01 | - | - | - | \* |
| 11 | \* | 1 | 1 | \* |
| 10 | - | \* | - | - |