# CRT Closure — 24 Rings

*Uniqueness via (mod 3, mod 8); derived constraints (mod 2,4,6)*

## Statement

For any residues (a,b) with $0 \le a < 3$, $0 \le b < 8$ there exists a unique ring $r \in \{1..24\}$ s.t. $r \equiv a \pmod 3$, $r \equiv b \pmod 8$. Joker windows: $r \equiv 0 \pmod 8$.

| Ring | m3 | m8 | Parity | Joker? |
|---|---|---|---|---|
| 1 | 1 | 1 | Red(+) | No |
| 2 | 2 | 2 | Black(–) | No |
| 3 | 0 | 3 | Red(+) | No |
| 4 | 1 | 4 | Black(–) | No |
| 5 | 2 | 5 | Red(+) | No |
| 6 | 0 | 6 | Black(–) | No |
| 7 | 1 | 7 | Red(+) | No |
| 8 | 2 | 0 | Black(–) | Yes |
| 9 | 0 | 1 | Red(+) | No |
| 10 | 1 | 2 | Black(–) | No |
| 11 | 2 | 3 | Red(+) | No |
| 12 | 0 | 4 | Black(–) | No |
| 13 | 1 | 5 | Red(+) | No |
| 14 | 2 | 6 | Black(–) | No |
| 15 | 0 | 7 | Red(+) | No |
| 16 | 1 | 0 | Black(–) | Yes |
| 17 | 2 | 1 | Red(+) | No |
| 18 | 0 | 2 | Black(–) | No |
| 19 | 1 | 3 | Red(+) | No |

| | | | | |
|---|---|---|---|---|
| 20 | 2 | 4 | Black(–) | No |
| 21 | 0 | 5 | Red(+) | No |
| 22 | 1 | 6 | Black(–) | No |
| 23 | 2 | 7 | Red(+) | No |
| 24 | 0 | 0 | Black(–) | Yes |