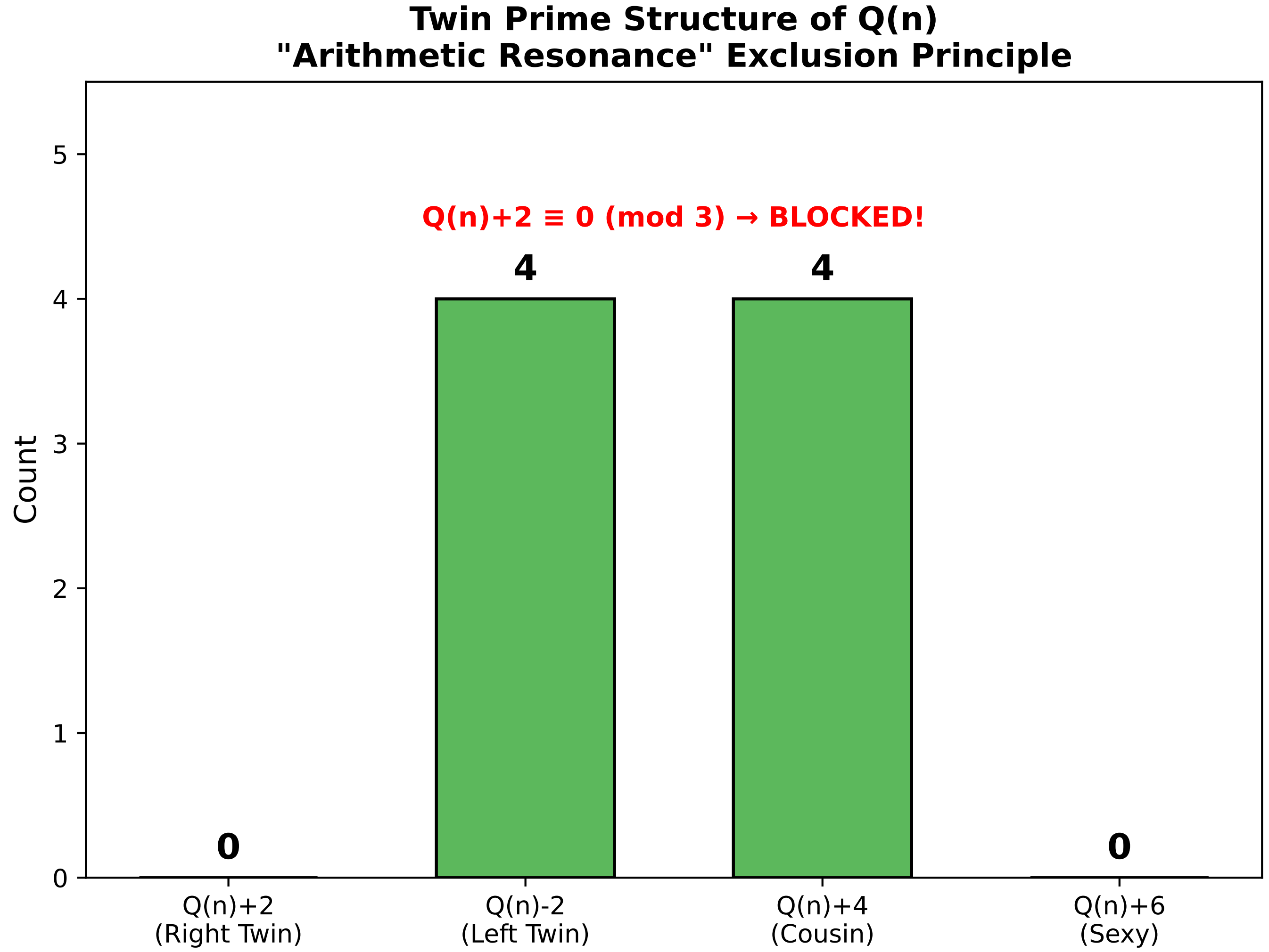

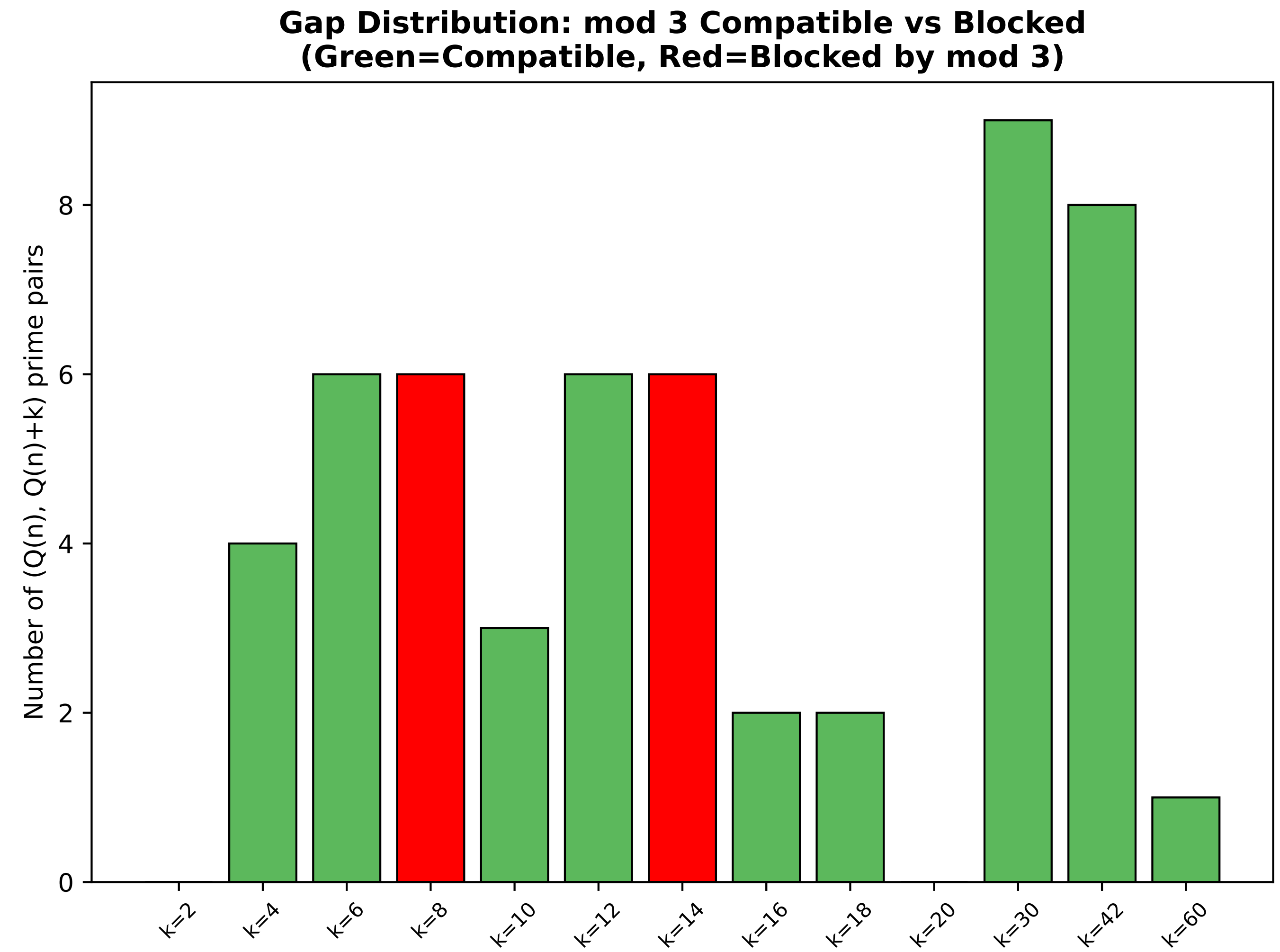

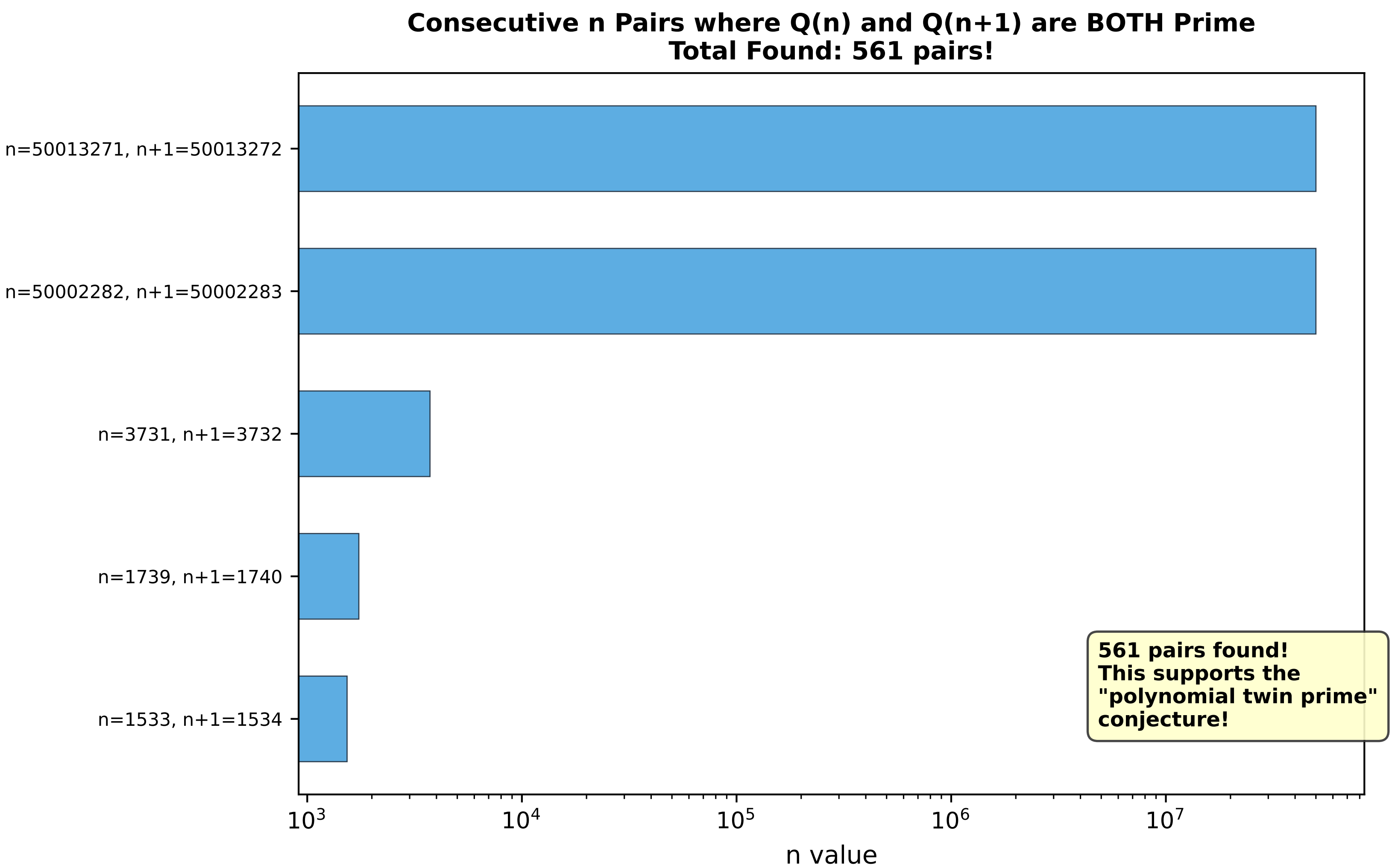


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Q(n) = n⁴⁷ - (n-1)⁴⁷  TWIN PRIME ANALYSIS

Based on Zhang Yitang / Terence Tao
Bounded Gap Theory

THEOREM 1: Right Twin Exclusion

For all n >= 2: (Q(n), Q(n)+2) cannot be prime.

PROOF: Q(n) = 1 (mod 3)
     => Q(n)+2 = 0 (mod 3)
     => Q(n)+2 is divisible by 3  QED

OBSERVATION 1: Left Twins Exist

Found 4 cases where Q(n)-2 is prime.
(No mod 3 obstruction since Q(n)-2 ≡ 2 (mod 3))

OBSERVATION 2: Consecutive n Pairs

Found 561 pairs (n, n+1) where Q(n) and Q(n+1)
both prime!
This is strong evidence for a "polynomial
twin prime conjecture"

CONJECTURE: Infinitely many n exist such that
            Q(n) and Q(n+1) are both prime.

BATEMAN-HORN FACTOR

ω(p) = 0 for all small primes p
(Q(n) never ≡ 0 mod p for p < 283)
=> C_Q ≈ 8.70 (very high prime density!)
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