K1-K3 Mechanical Precedents

K1: Standard Vigenère (PALIMPSEST × 2)

- Key: PALIMPSEST PALIMPSEST
- Length: 10 characters repeated
- Method: $C[i] = (P[i] + K[i \bmod 10]) \bmod 26$
- Solved: 1999 (brute force search)

K2: Keyed Caesar (ABSCISSA)

- Key: ABSCISSA (single word)
- Alphabet: ABSCISSA + remaining letters
- Method: Monoalphabetic substitution with keyed alphabet
- Solved: 1999 (frequency analysis)

K3: Columnar Transposition + Vigenère

- Stage 1: Columnar transposition (4 rows × 7 columns)
- Stage 2: Vigenère decryption
- Co-prime dimensions: gcd(4,7) = 1
- Key insight: Fixed pattern from typographic cues
- Solved: 2000 (pattern recognition)

The 4×7 grid ensures full coverage through co-prime property - precedent for K4's 97 positions with L=17.

4×7 Co-prime Grid
Rows / Columns (0-6)