

KENKEN CALCUDOKU & KAKURO CROSS-SUMS PUZZLES

Dual Japanese Mathematical Logic Grids: Arithmetic Cages & Clue Partitions

DIFFICULTY / SPEC
Standard US Letter
Bespoke Printable

PUZZLE 1: 4x4 KENKEN (CALCUDOKU)

Fill 1-4 per row/col without repeats. Cages satisfy math operations:

12x		2/	
7+	1-		3-
	8+		
3+			4

KENKEN AXIOM RULES & NOTES:

- Row/Column Latin square constraint: digits {1, 2, 3, 4}.
- 12x in 2 cells: must be {3, 4}.
- 3+ in 2 cells: must be {1, 2}.
- Single cell cage 4: immediately fills with digit 4.

PUZZLE 2: KAKURO CROSS-SUMS

Fill 1-9 without duplicate digits per run. Diagonal gives target sums:

16		24	
17			11
23			
	10		

UNIQUE KAKURO SUM PARTITIONS:

- Sum 17 in 2 cells: unique pair {8, 9}.
- Sum 24 in 3 cells: unique triplet {7, 8, 9}.
- Sum 16 in 2 cells: {7, 9} (since 8+8 forbidden).
- Sum 23 in 3 cells: {6, 8, 9}.

MATHEMATICAL PARTITION SCRATCHPAD & CANDIDATE ELIMINATION GRID

KenKen Row 1 Candidates: [] [] [] [] | Cage '12x' Pair Deduction: {____, ____}

Kakuro Across Run 17 (2 cells): Digit A = ____ | Digit B = ____ | Intersection Check with Col 16

Kakuro Across Run 23 (3 cells): Triplet candidates = {____, ____, ____} | Intersection Check with Col 24

MATHEMATICIAN LOG

Solver Name: _____
Date Solved: _____
Logic Level: [] Master

PUZZLE TIMERS

KenKen Time: ____ Minutes
Kakuro Time: ____ Minutes
Total Workout: ____ Minutes

CALCULATION AUDIT

KenKen Accuracy: [] 100% OK
Kakuro Accuracy: [] 100% OK
Logic Rank: * * * * *

ALGEBRAIC DEDUCTION & MATRIX COMBINATORICS NOTES:
