

BINAIRO

50 Handcrafted Puzzles from Beginner to Expert · Solutions Included

Alternative Names: Takuzu · Binary Puzzle · Tic-Tac-Logic · Tohu-Bohu · Zerone

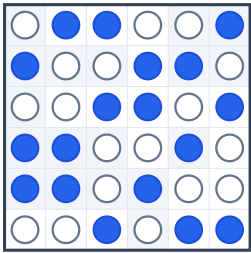
How to Play & Rules

- Fill every empty cell with either a blue or a white circle; initial given circles cannot be changed.
- No Three-In-A-Row: No three circles of the same color can sit consecutively in any straight row or column (diagonals do not count).
- Equal Balance: Every row and every column must contain an equal number of blue and white circles (exactly half of each).
- Line Uniqueness: No two rows can be completely identical to each other, and no two columns can be completely identical.
- Every board has a single unique solution deducible through logic alone without guessing.

Every puzzle has exactly one valid solution, deducible purely through logical reasoning.

Difficulty Levels (50 Puzzles)

Stage	Grid Sizes	Puzzles
Intro	6×6	3
Easy	6×6 to 8×8	12
Medium	8×8 to 10×10	12
Hard	10×10 to 12×12	12
Expert	12×12	11



Solved Level Example

Play 100+ Levels Online with Instant Validation

Enjoy interactive play with step-by-step hints, conflict checkers, and unlimited undo on AZTest.

<https://aztest.org/puzzles/binairo/>

Discover 25+ free logic games on AZTest: Slitherlink, Nurikabe, Calcudoku, Masyu, Galaxies, Hitori, Tents, and more.

BINAIRO — WHAT IS ALLOWED & WHAT IS NOT ALLOWED

Visual guide illustrating correct moves versus rule violations

No Three in a Row

Two circles of one colour may sit side by side, but never three, across or down. Diagonals don't count.



✓ **ALLOWED**

Two blues side by side, then two whites: pairs are fine.



✗ **NOT ALLOWED**

Three blue circles in a row.

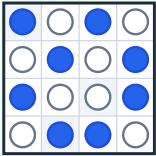


✗ **NOT ALLOWED**

Three white circles in a column: the rule holds down as well as across.

Half and Half

Every row and every column holds as many blue circles as white ones: a line of six has three of each.



✓ **ALLOWED**

A finished board: two of each colour in every row and column, and nothing three in a line (three on a diagonal is fine).



✗ **NOT ALLOWED**

Four blue and two white. No three touch, but a row of six needs three of each.



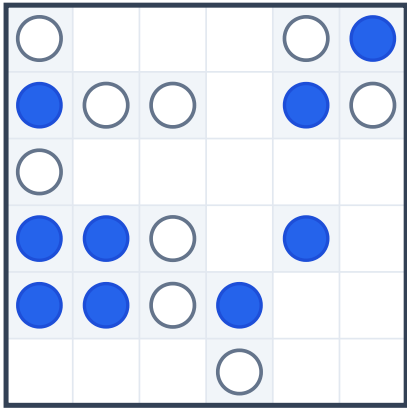
✗ **NOT ALLOWED**

The same goes down a column: this one has four blue.

Puzzle #1

INTRO

6 × 6



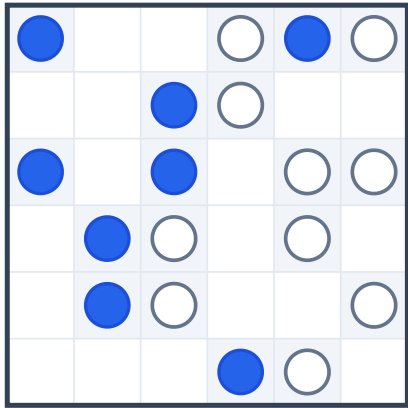
Play online: [binairo/#1](#)

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Puzzle #2

INTRO

6 × 6



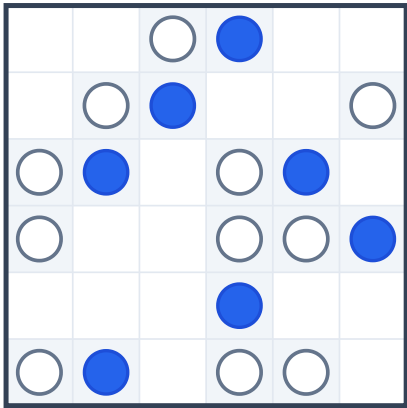
Play online: [binairo/#2](#)

AZTest · [aztest.org](#)

Puzzle #3

INTRO

6 × 6



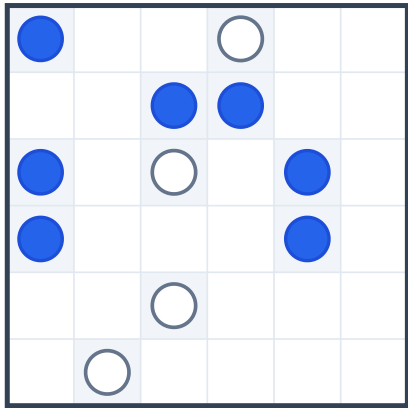
Play online: [binairo/#3](#)

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Puzzle #4

EASY

6 × 6



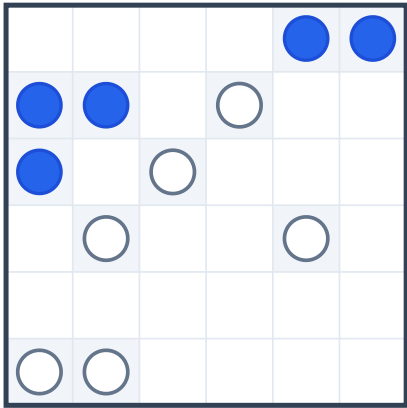
Play online: [binairo/#4](#)

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Puzzle #5

EASY

6 × 6



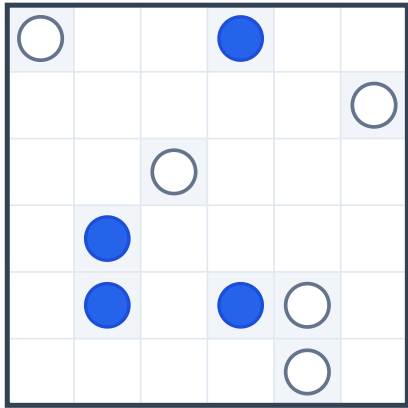
Play online: [binairo/#6](#)

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Puzzle #6

EASY

6 × 6



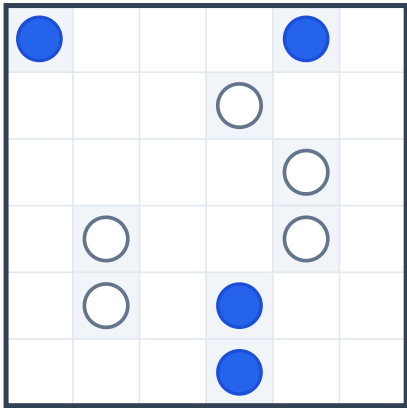
Play online: [binairo/#8](#)

AZTest · [aztest.org](#)

Puzzle #7

EASY

6 × 6



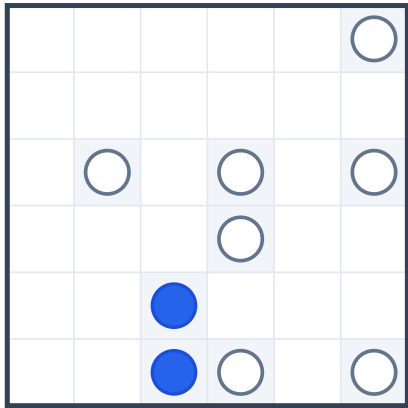
Play online: [binairo/#10](#)

AZTest · [aztest.org](#)

Puzzle #8

EASY

6 × 6

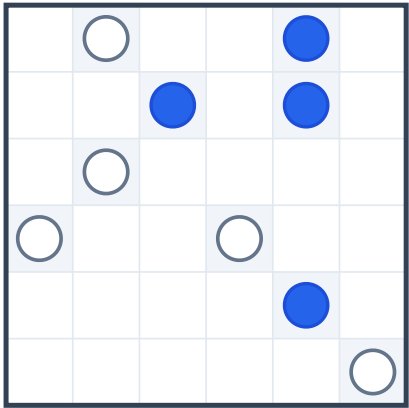


Play online: [binairo/#12](#)

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Puzzle #9 EASY

6 × 6

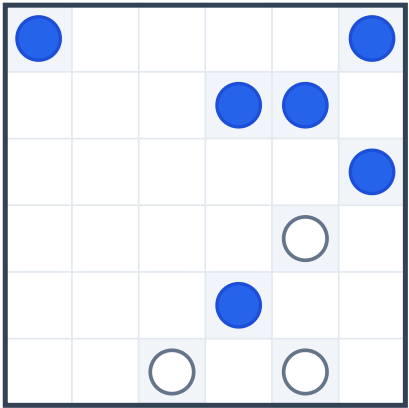


Play online: [binairo/#14](#)

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Puzzle #10 EASY

6 × 6

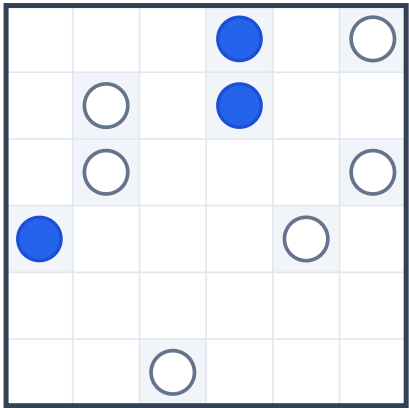


Play online: [binairo/#15](#)

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Puzzle #11 EASY

6 × 6

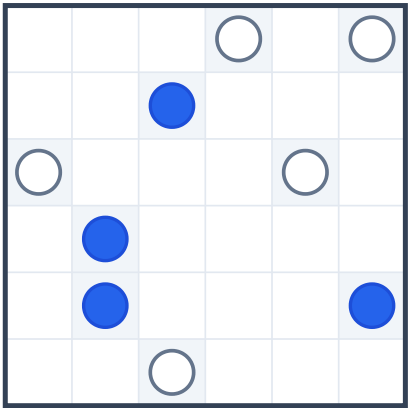


Play online: [binairo/#17](#)

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Puzzle #12 EASY

6 × 6

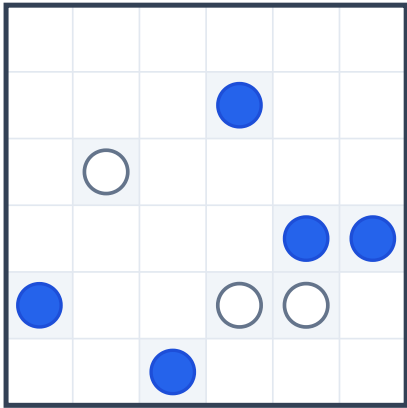


Play online: [binairo/#19](#)

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Puzzle #13 EASY

6 × 6

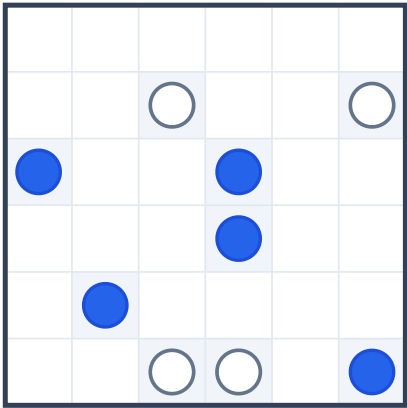


Play online: [binairo/#21](#)

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Puzzle #14 EASY

6 × 6

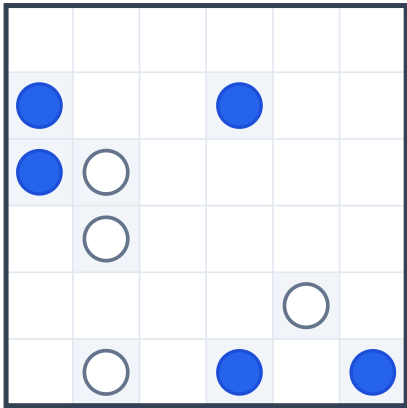


Play online: [binairo/#23](#)

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Puzzle #15 EASY

6 × 6

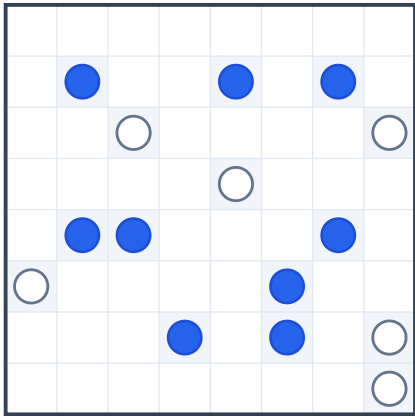


Play online: [binairo/#25](#)

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Puzzle #16 MEDIUM

8 × 8



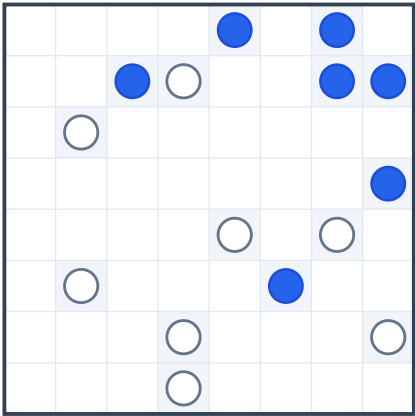
Play online: [binairo/#26](#)

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Puzzle #17

MEDIUM

8 × 8



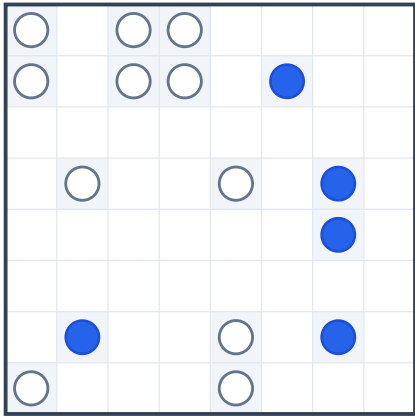
Play online: [binairo/#28](#)

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Puzzle #18

MEDIUM

8 × 8



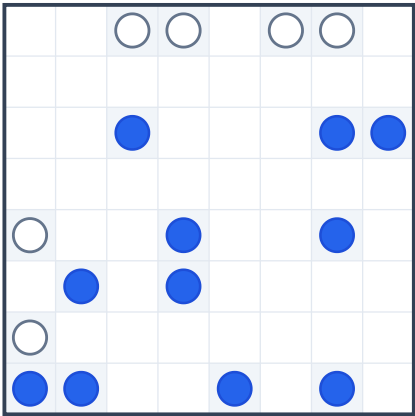
Play online: [binairo/#30](#)

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Puzzle #19

MEDIUM

8 × 8



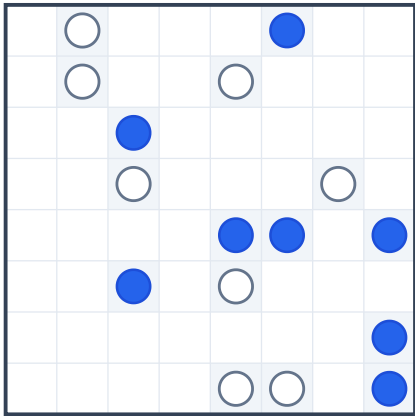
Play online: [binairo/#33](#)

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Puzzle #20

MEDIUM

8 × 8



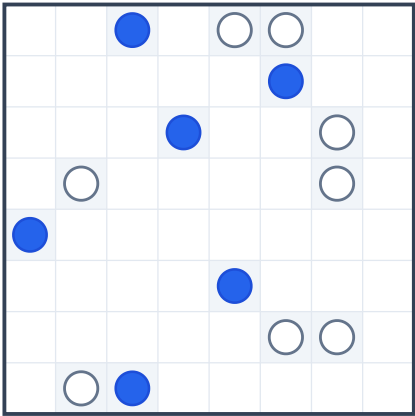
Play online: [binairo/#35](#)

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Puzzle #21

MEDIUM

8 × 8



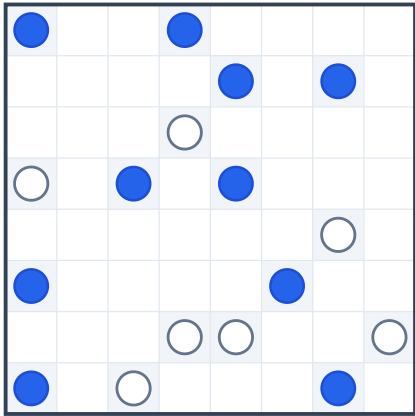
Play online: [binairo/#37](#)

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Puzzle #22

MEDIUM

8 × 8



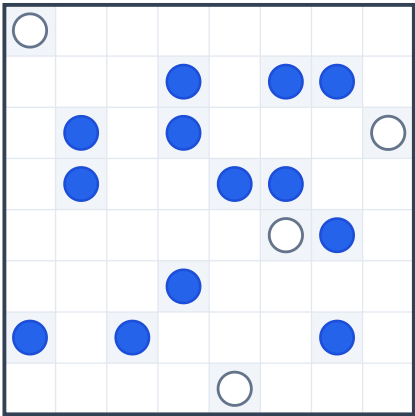
Play online: [binairo/#39](#)

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Puzzle #23

MEDIUM

8 × 8



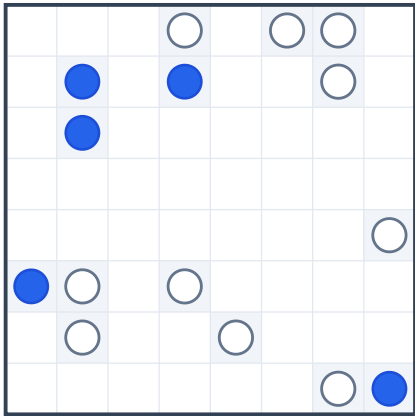
Play online: [binairo/#41](#)

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Puzzle #24

MEDIUM

8 × 8



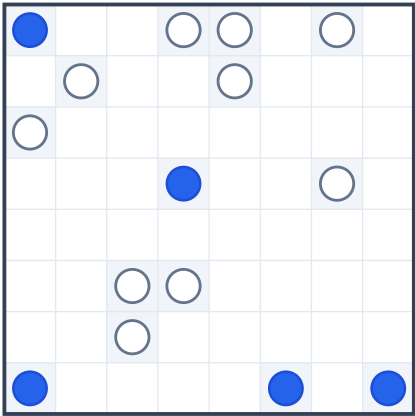
Play online: [binairo/#43](#)

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Puzzle #25

MEDIUM

8 × 8



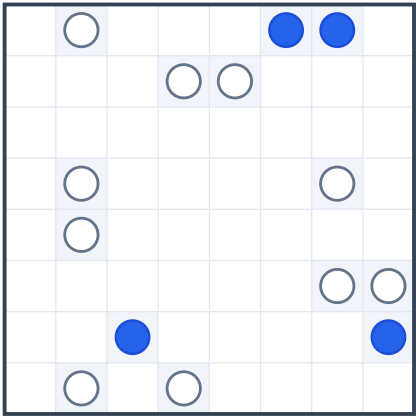
Play online: [binairo/#46](#)

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Puzzle #26

MEDIUM

8 × 8



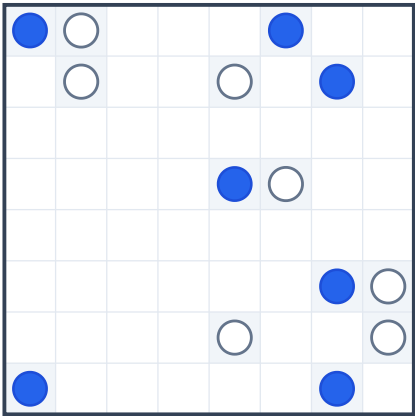
Play online: [binairo/#48](#)

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Puzzle #27

MEDIUM

8 × 8



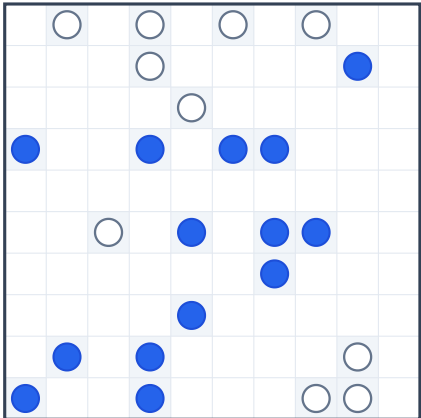
Play online: [binairo/#50](#)

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Puzzle #28

HARD

10 × 10

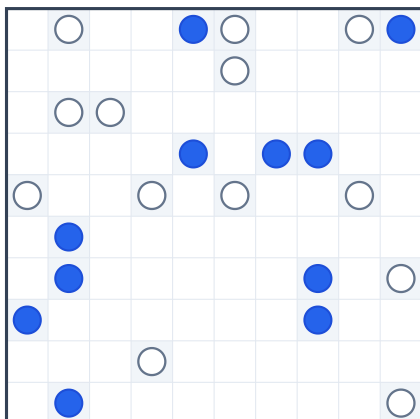


Play online: [binairo/#51](#)

AZTest · [aztest.org](#)

Puzzle #29 HARD

10 × 10

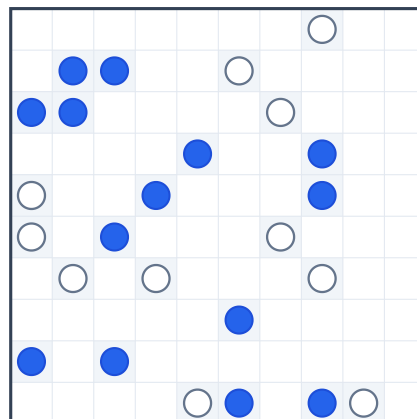


Play online: binairo/#53

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Puzzle #30 HARD

10 × 10

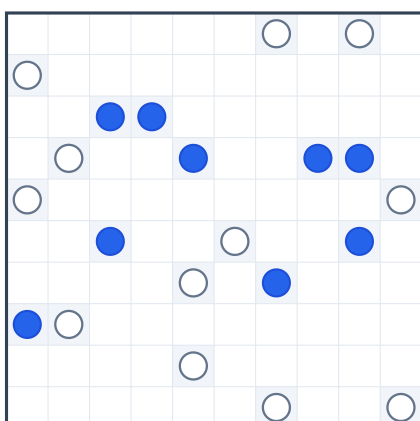


Play online: binairo/#55

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Puzzle #31 HARD

10 × 10

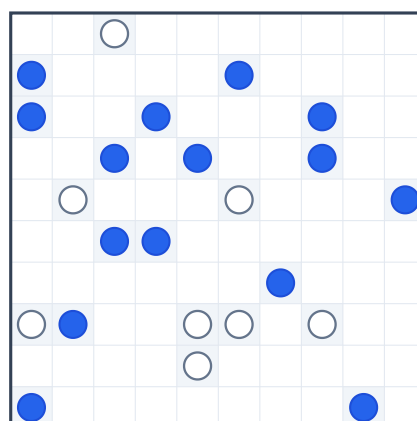


Play online: binairo/#58

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Puzzle #32 HARD

10 × 10



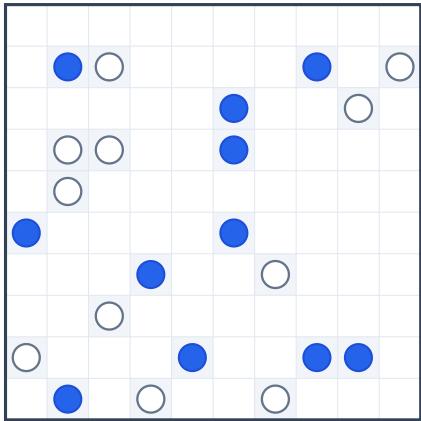
Play online: [binairo/#60](#)

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Puzzle #33

HARD

10 × 10



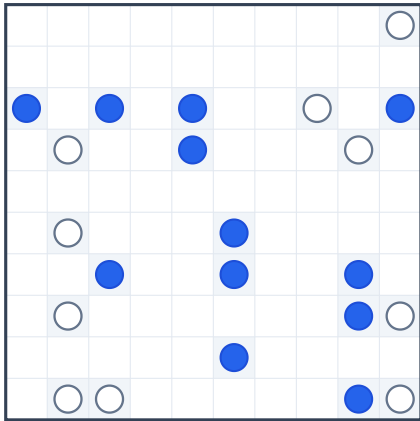
Play online: [binairo/#62](#)

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Puzzle #34

HARD

10 × 10



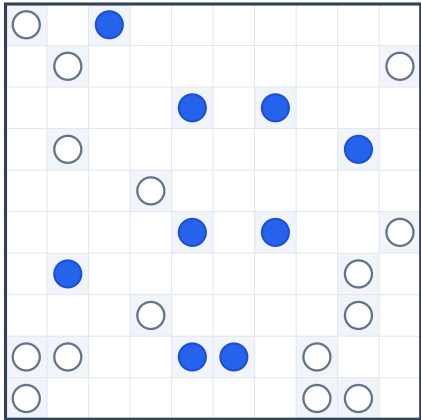
Play online: [binairo/#64](#)

AZTest · [aztest.org](#)

Puzzle #35

HARD

10 × 10



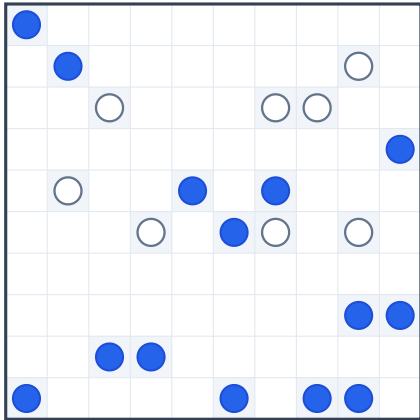
Play online: [binairo/#66](#)

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Puzzle #36

HARD

10 × 10



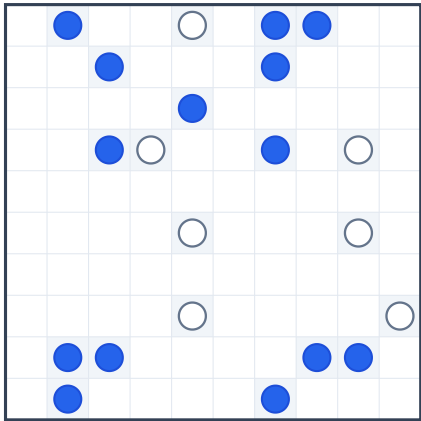
Play online: [binairo/#68](#)

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Puzzle #37

HARD

10 × 10



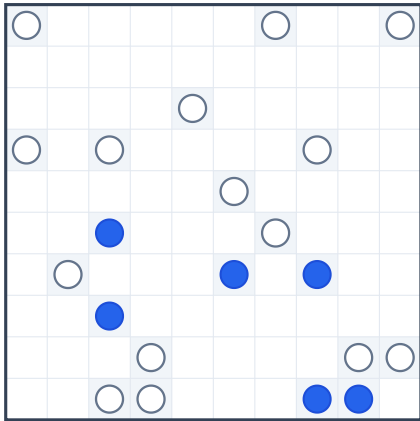
Play online: [binairo/#71](#)

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Puzzle #38

HARD

10 × 10



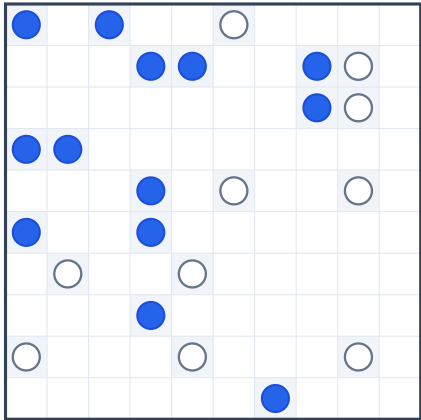
Play online: [binairo/#73](#)

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Puzzle #39

HARD

10 × 10



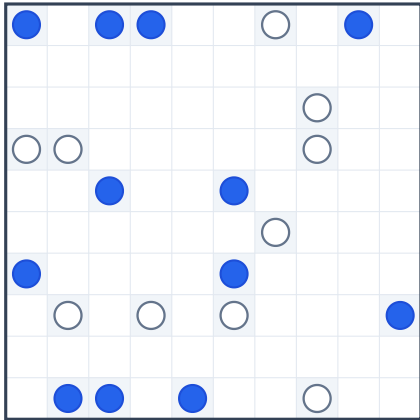
Play online: [binairo/#75](#)

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Puzzle #40

EXPERT

10 × 10



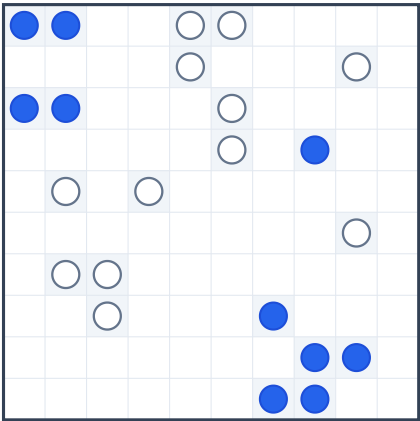
Play online: [binairo/#76](#)

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Puzzle #41

EXPERT

10 × 10



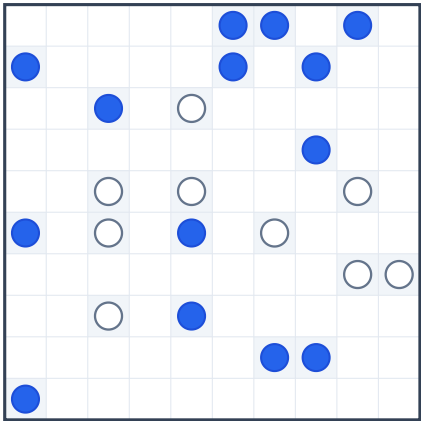
Play online: [binairo/#78](#)

AZTest · [aztest.org](#)

Puzzle #42

EXPERT

10 × 10



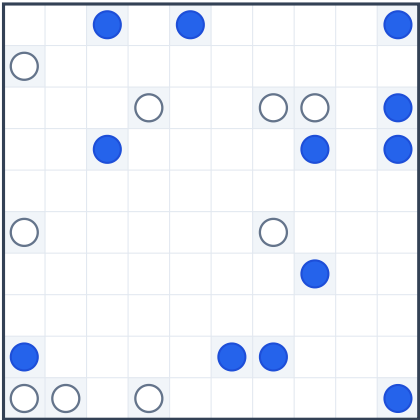
Play online: [binairo/#81](#)

AZTest · [aztest.org](#)

Puzzle #43

EXPERT

10 × 10



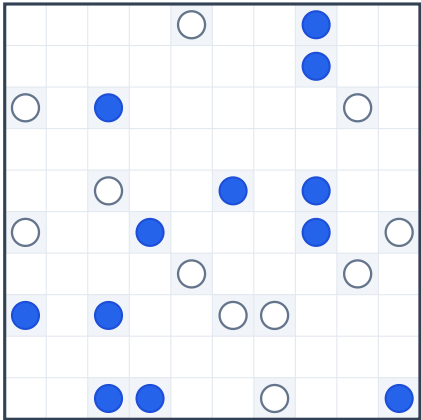
Play online: [binairo/#83](#)

AZTest · [aztest.org](#)

Puzzle #44

EXPERT

10 × 10



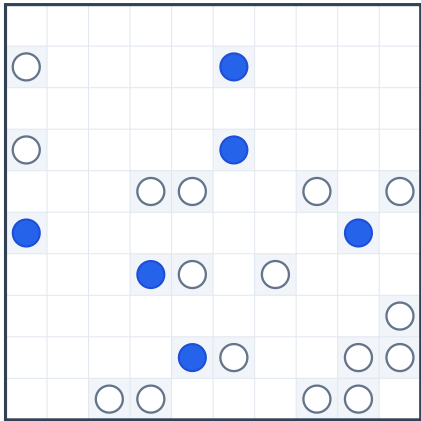
Play online: [binairo/#86](#)

AZTest · [aztest.org](#)

Puzzle #45

EXPERT

10 × 10



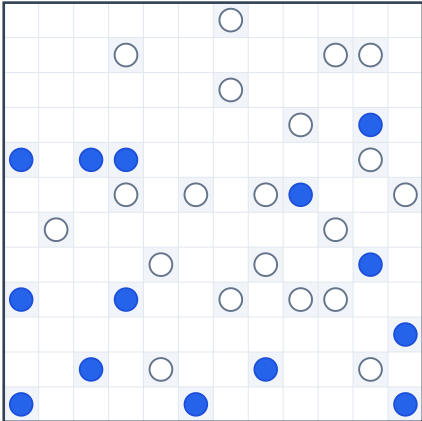
Play online: [binairo/#88](#)

AZTest · [aztest.org](#)

Puzzle #46

EXPERT

12 × 12



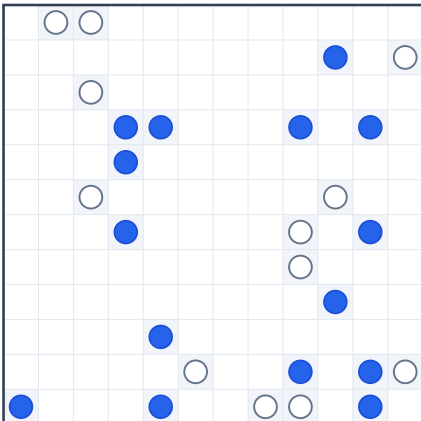
Play online: [binairo/#90](#)

AZTest · [aztest.org](#)

Puzzle #47

EXPERT

12 × 12



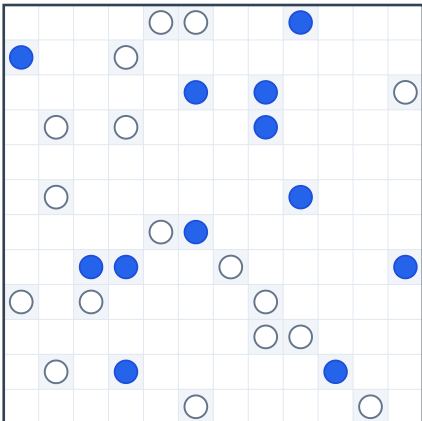
Play online: [binairo/#93](#)

AZTest · [aztest.org](#)

Puzzle #48

EXPERT

12 × 12

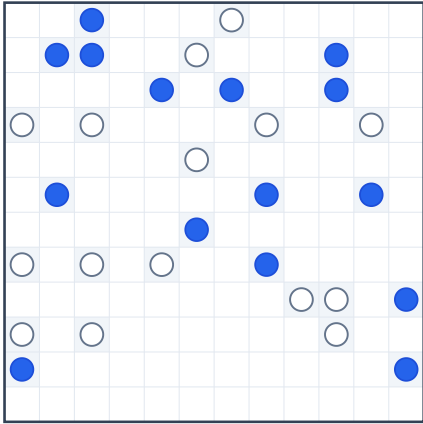


Play online: [binairo/#95](#)

AZTest · [aztest.org](#)

Puzzle #49 EXPERT

12 × 12

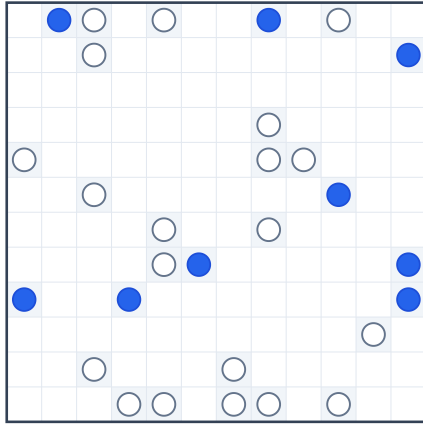


Play online: [binairo/#98](#)

AZTest · [aztest.org](#)

Puzzle #50 EXPERT

12 × 12



Play online: [binairo/#100](#)

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BINAIRO SOLUTIONS

Complete solved grids for Puzzles #1 to #12

Puzzle #1Intro (6×6)

○	●	●	○	○	●
●	○	○	●	●	○
○	○	●	●	○	●
●	●	○	○	●	○
●	●	○	●	○	○
○	○	●	○	●	●

Puzzle #2Intro (6×6)

●	●	○	○	●	○
○	○	●	○	●	●
●	○	●	●	○	○
○	●	○	●	○	●
●	●	○	○	●	○
○	○	●	●	○	●

Puzzle #3Intro (6×6)

●	○	○	●	●	○
●	○	●	●	○	○
○	●	○	○	○	●
○	●	●	○	○	●
●	○	○	●	●	○
○	●	●	○	○	●

Puzzle #4Easy (6×6)

●	●	○	○	●	○
○	○	●	○	○	●
●	●	○	○	●	○
●	○	●	○	○	○
○	●	○	●	○	●
○	○	●	●	○	●

Puzzle #5Easy (6×6)

○	○	●	○	●	○
●	●	○	○	○	○
●	○	○	○	○	○
○	○	●	○	○	○
○	○	○	○	○	○
○	○	○	○	○	○

Puzzle #6Easy (6×6)

○	●	○	●	○	○
●	○	○	○	○	○
○	○	○	○	○	○
○	○	○	○	○	○
○	○	○	○	○	○
○	○	○	○	○	○

Puzzle #7Easy (6×6)

●	○	●	○	○	○
○	○	○	○	○	○
○	○	○	○	○	○
○	○	○	○	○	○
○	○	○	○	○	○
○	○	○	○	○	○

Puzzle #8Easy (6×6)

●	●	○	○	○	○
○	○	○	○	○	○
○	○	○	○	○	○
○	○	○	○	○	○
○	○	○	○	○	○
○	○	○	○	○	○

Puzzle #9Easy (6×6)

○	○	○	○	○	○
○	○	○	○	○	○
○	○	○	○	○	○
○	○	○	○	○	○
○	○	○	○	○	○
○	○	○	○	○	○

Puzzle #10Easy (6×6)

○	○	○	○	○	○
○	○	○	○	○	○
○	○	○	○	○	○
○	○	○	○	○	○
○	○	○	○	○	○
○	○	○	○	○	○

Puzzle #11Easy (6×6)

○	○	○	○	○	○
○	○	○	○	○	○
○	○	○	○	○	○
○	○	○	○	○	○
○	○	○	○	○	○
○	○	○	○	○	○

Puzzle #12Easy (6×6)

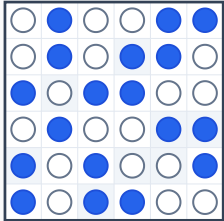
○	○	○	○	○	○
○	○	○	○	○	○
○	○	○	○	○	○
○	○	○	○	○	○
○	○	○	○	○	○
○	○	○	○	○	○

BINAIRO SOLUTIONS

Complete solved grids for Puzzles #13 to #24

Puzzle #13

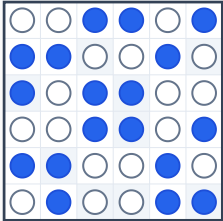
Easy (6×6)



0	1	0	0	1	1
0	1	1	1	1	0
1	0	1	1	0	0
0	1	0	0	1	1
1	0	1	0	0	1
1	0	1	0	0	0

Puzzle #14

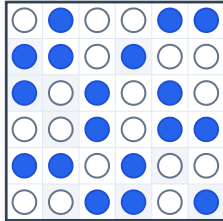
Easy (6×6)



0	0	1	1	0	1
1	1	0	0	1	0
1	0	1	1	0	0
0	0	1	1	0	1
1	1	0	0	1	0
0	1	0	0	1	1

Puzzle #15

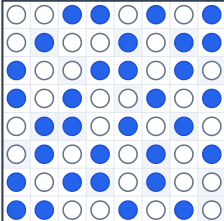
Easy (6×6)



0	1	0	0	1	1
1	1	0	1	0	0
1	0	1	0	1	0
0	0	1	0	1	1
1	1	0	1	0	0
0	0	1	1	0	1

Puzzle #16

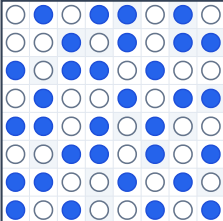
Medium (8×8)



0	0	1	1	0	0	1	0
0	1	0	0	1	1	1	1
1	0	0	1	0	0	0	0
1	0	1	0	0	0	1	1
0	1	0	0	1	1	0	0
0	1	0	1	0	0	1	1
1	0	1	0	0	0	0	0
1	1	0	1	0	0	0	0

Puzzle #17

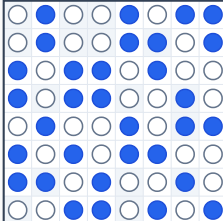
Medium (8×8)



0	1	0	1	1	0	1	0
0	0	1	0	0	1	1	0
1	0	1	0	0	0	0	0
0	1	0	0	0	1	1	1
1	1	0	0	0	0	0	0
0	0	1	0	0	0	1	1
1	1	0	0	0	1	0	0
0	0	1	0	0	1	1	1

Puzzle #18

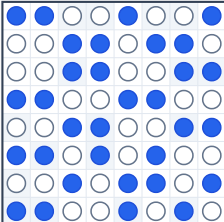
Medium (8×8)



0	1	0	0	1	0	1	0
0	1	0	0	0	0	0	1
1	0	0	0	1	0	0	0
1	0	0	1	0	0	0	0
0	1	0	0	0	1	0	1
1	0	1	0	0	0	0	0
1	1	0	0	0	0	1	0
0	0	1	0	0	1	1	1

Puzzle #19

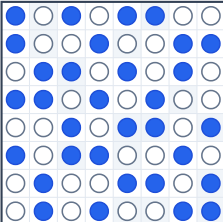
Medium (8×8)



1	1	0	0	1	0	1	0
0	0	1	0	0	0	0	0
0	0	1	1	0	0	1	1
1	1	0	0	1	0	0	0
0	0	1	0	0	0	1	0
1	1	0	1	0	0	0	0
0	0	1	0	0	0	1	0
1	1	0	0	1	0	0	0

Puzzle #20

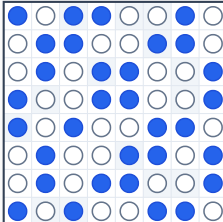
Medium (8×8)



1	0	1	0	1	1	0	0
0	0	0	0	0	0	0	0
0	1	1	0	0	0	1	0
1	1	0	0	1	0	0	0
0	0	0	0	1	0	0	0
1	0	0	0	0	0	0	0
0	1	0	0	0	0	1	0
0	1	0	0	0	0	1	1

Puzzle #21

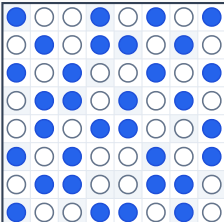
Medium (8×8)



1	0	1	0	0	1	0	0
0	1	0	0	0	0	0	0
0	1	0	0	0	0	0	0
1	0	0	1	0	0	0	1
0	0	1	0	0	0	0	0
0	0	0	0	0	0	0	0
0	1	0	0	0	0	0	0
1	0	0	0	0	0	0	0

Puzzle #22

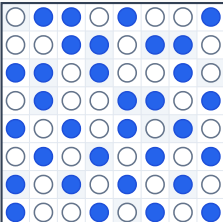
Medium (8×8)



1	0	0	1	0	0	0	1
0	1	0	0	0	0	1	0
0	1	0	0	0	0	1	0
0	1	0	0	0	0	1	0
0	1	0	0	0	0	1	0
0	1	0	0	0	0	1	0
0	1	0	0	0	0	1	0
0	1	0	0	0	0	1	0

Puzzle #23

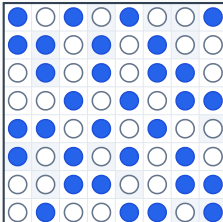
Medium (8×8)



0	1	0	0	1	0	0	1
0	0	0	0	0	0	0	0
0	1	0	0	0	0	0	0
0	1	0	0	0	0	0	0
0	1	0	0	0	0	0	0
0	1	0	0	0	0	0	0
0	1	0	0	0	0	0	0
0	1	0	0	0	0	0	0

Puzzle #24

Medium (8×8)



0	1	0	0	1	0	0	1
0	1	0	0	0	0	0	0
0	1	0	0	0	0	0	0
0	1	0	0	0	0	0	0
0	1	0	0	0	0	0	0
0	1	0	0	0	0	0	0
0	1	0	0	0	0	0	0
0	1	0	0	0	0	0	0

Complete solved grids for Puzzles #25 to #36

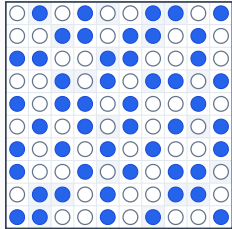
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BINAIRO SOLUTIONS

Complete solved grids for Puzzles #37 to #48

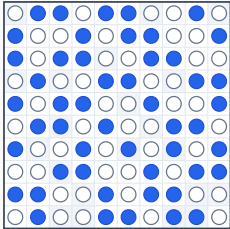
Puzzle #37

Hard (10×10)



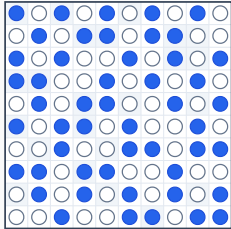
Puzzle #38

Hard (10×10)



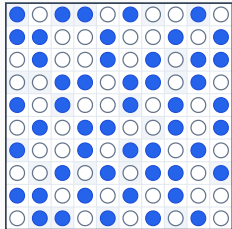
Puzzle #39

Hard (10×10)



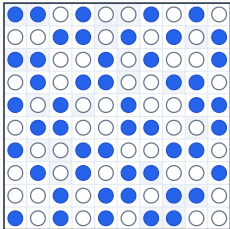
Puzzle #40

Expert (10×10)



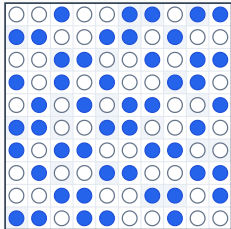
Puzzle #41

Expert (10×10)



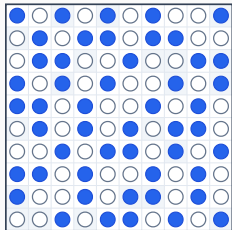
Puzzle #42

Expert (10×10)



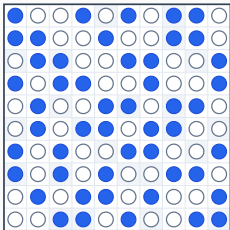
Puzzle #43

Expert (10×10)



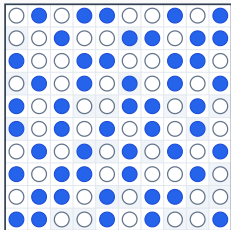
Puzzle #44

Expert (10×10)



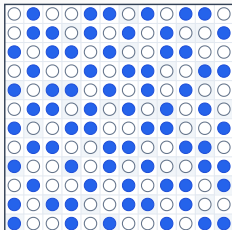
Puzzle #45

Expert (10×10)



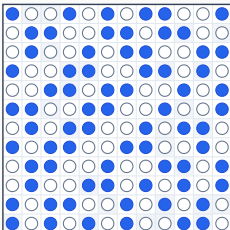
Puzzle #46

Expert (12×12)



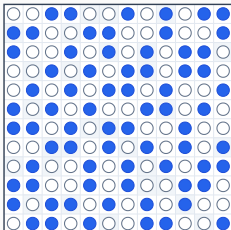
Puzzle #47

Expert (12×12)



Puzzle #48

Expert (12×12)

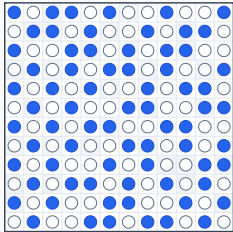


BINAIRO SOLUTIONS

Complete solved grids for Puzzles #49 to #50

Puzzle #49

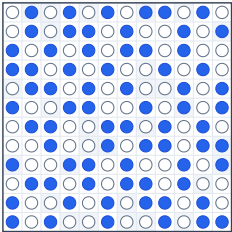
Expert (12×12)



A 12x12 grid with blue and white circles. The pattern is as follows:
Row 1: Blue, White, Blue, White, Blue, White, Blue, White, Blue, White, Blue, White
Row 2: White, Blue, White, Blue, White, Blue, White, Blue, White, Blue, White, Blue
Row 3: Blue, White, Blue, White, Blue, White, Blue, White, Blue, White, Blue, White
Row 4: White, Blue, White, Blue, White, Blue, White, Blue, White, Blue, White, Blue
Row 5: Blue, White, Blue, White, Blue, White, Blue, White, Blue, White, Blue, White
Row 6: White, Blue, White, Blue, White, Blue, White, Blue, White, Blue, White, Blue
Row 7: Blue, White, Blue, White, Blue, White, Blue, White, Blue, White, Blue, White
Row 8: White, Blue, White, Blue, White, Blue, White, Blue, White, Blue, White, Blue
Row 9: Blue, White, Blue, White, Blue, White, Blue, White, Blue, White, Blue, White
Row 10: White, Blue, White, Blue, White, Blue, White, Blue, White, Blue, White, Blue
Row 11: Blue, White, Blue, White, Blue, White, Blue, White, Blue, White, Blue, White
Row 12: White, Blue, White, Blue, White, Blue, White, Blue, White, Blue, White, Blue

Puzzle #50

Expert (12×12)



A 12x12 grid with blue and white circles. The pattern is as follows:
Row 1: White, Blue, White, Blue, White, Blue, White, Blue, White, Blue, White, Blue
Row 2: Blue, White, Blue, White, Blue, White, Blue, White, Blue, White, Blue, White
Row 3: White, Blue, White, Blue, White, Blue, White, Blue, White, Blue, White, Blue
Row 4: Blue, White, Blue, White, Blue, White, Blue, White, Blue, White, Blue, White
Row 5: White, Blue, White, Blue, White, Blue, White, Blue, White, Blue, White, Blue
Row 6: Blue, White, Blue, White, Blue, White, Blue, White, Blue, White, Blue, White
Row 7: White, Blue, White, Blue, White, Blue, White, Blue, White, Blue, White, Blue
Row 8: Blue, White, Blue, White, Blue, White, Blue, White, Blue, White, Blue, White
Row 9: White, Blue, White, Blue, White, Blue, White, Blue, White, Blue, White, Blue
Row 10: Blue, White, Blue, White, Blue, White, Blue, White, Blue, White, Blue, White
Row 11: White, Blue, White, Blue, White, Blue, White, Blue, White, Blue, White, Blue
Row 12: Blue, White, Blue, White, Blue, White, Blue, White, Blue, White, Blue, White

Congratulations on completing the puzzles!

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