

10 Binary 10

Designed by **Kanare Kato**

2 players / 20 minutes / 8 years and older

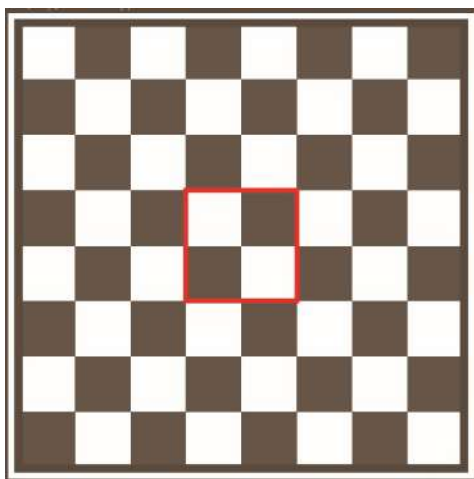
Binary is a territorial game using a checkerboard. The player who creates larger groups possible has the advantage, but the unique feature of this game is that empty squares of the same color as the pieces are also included in one's territory.

COMPONENTS

- 8×8 checkerboard
- 16 pieces of each of the two colors

If playing with a larger size, prepare the pieces so that the total number of pieces is half of the total number of squares of the board.

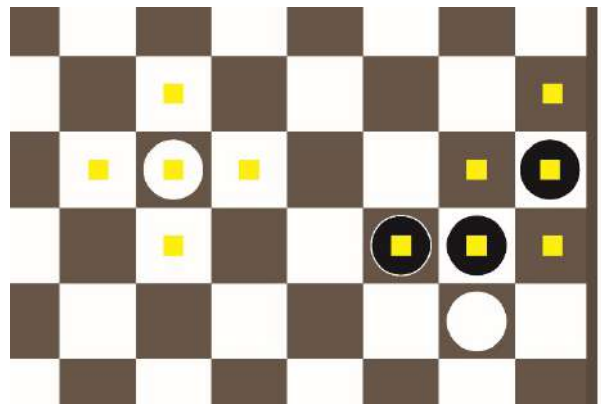
The 2 x 2 space in the center of the board is called the center space.



(Fig.1) Red frame indicates center space

TERITORIES

A territory is a group of pieces of the same color that are horizontally or vertically adjacent to each other. Territories also include the empty squares of the same color adjacent to a piece horizontally or vertically. The size of a territory is the total number of pieces and empty squares in the territory.



(Fig.2) Example of a territory. The left shows a size-5 territory of white and the right shows a size-6 territory of black.

Territory size is 2 or more. In other words, a single empty square or a single piece is not a territory.

SETUP

Decide which player uses which color in any appropriate way and receives all pieces of his or her own color.

GAMEPLAY

At first the board is empty. First, the player with black places his or her piece in one of the dark squares. The black player's first move cannot be placed in the center space.

Starting with the next white player, the active player performs one of the following actions. Passing is not allowed.

1. place your piece in one or two empty squares of the same color as your piece
2. place your piece in one of the empty squares of a different color

THE CENTER SPACES

The 2x2 space in the center of the board is the center space. Placing pieces in this space is subject to the following restrictions:

1. if you place a piece in a square of your color, you can only place one piece on your turn.
2. If you place a piece on a square of a different color from your own, you discard one piece from your hand (i.e., one piece not placed on the board) and remove it from the game. If you do not have any pieces in your hand, you cannot place them in those squares.

GAME END

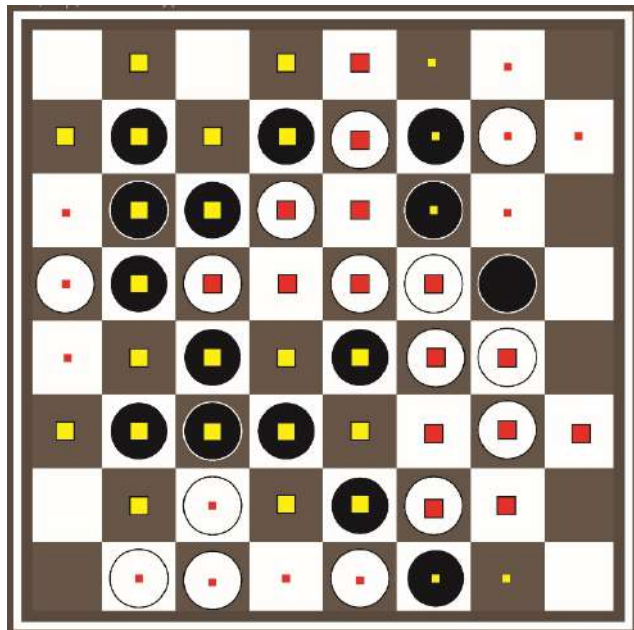
When one player runs out of pieces, the other player places all remaining pieces according to the above rules to end the game.

Each player calculates his/her score according to the following:

Score = size of largest territory x 2 + total size of remaining territories

The player with the higher score wins. In case of a tie, the size of the largest territories are compared, and if there is still a tie, the second, third, and so on until there is a size difference. If there is a tie until the end, the game is a draw.

* If you have multiple territories of the same size, order one of them as first, the others as second, third, and so on.



(Fig.3) Black scores 49 ($22 \times 2 + 3 + 2$), White scores 42 ($15 \times 2 + 5 + 4 + 3$), Black wins.