

OTHELLO

Group 2:

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1. Overall System Behavior

This game is played on an 8x8 board with 64 pieces each with one white and one black side. Two players take turns to play. The player's goal is to turn the opponent's colored pieces into their own color by "flanking" opponent pieces with the player pieces. The player with the most pieces on the board at the end of the game wins.

2. User Tasks

- a. Flank opponent pieces
 - i. Pick positions to place pieces
- b. Strategize for future moves
 - i. Observe opponent's moves
 - ii. Incorporate new opponent moves into strategy

3. Words, Icons, Graphics

- a. Words
 - i. Othello
 - ii. Main Menu
 - 1. Start Game
 - 2. Number of Players
 - 3. Computer Difficulty
 - a. Easy
 - b. Medium

- c. Hard

- iii. Restart Game

- iv. Player 1 Wins

- v. Player 2 Wins

- b. Icons

- i. App Icon (On phone home screen)

- ii. Main Menu Othello Icon

- c. Graphics

- i. UI Buttons

- 1. Main Menu button

- 2. Restart Game button

- ii. Main Menu Buttons

- 1. Start Game

- 2. Number of Players radio buttons

- a. 1 Player

- b. 2 Players

- 3. Computer Difficulty radio buttons

- a. Easy

- b. Medium

- c. Hard

- iii. Pieces

- 1. Black “side” of pieces

- 2. White “side” of pieces

- iv. 8x8 square board grid

4. Input and Output Devices

a. Input Devices

- i. Smartphone/Tablet touchscreen

b. Output Devices

- i. Smartphone/Tablet screen.

5. Action Sequences

- a. Player's turn is indicated by the UI.
- b. Possible moves by the player are indicated by empty circles on the appropriate game board positions.
- c. When the player places a piece on the game board in an appropriate location, a piece is animated landing on that place.
- d. Any flanked enemy pieces are flipped over to the player's color.
- e. Turn ends and passes to the opposing player.

6. Training Materials

- a. See Included Game Instructions

Game Instructions:

Othello[®]

**A minute to learn...
a lifetime to master!**

Ages 8 and up
2 players

CONTENTS

64 reversible discs
Playing board
6 'rubber' feet

Please remove all components from package and compare them to the components list.
If any items are missing, please call 1-800-524-TOYS.

PREPARATION

Insert the 6 feet provided into the holes in the base of the playing board

OBJECT OF THE GAME

The object of the game is to have the majority of your color discs face up on the board at the end of the game.

A MINUTE TO LEARN

Each player takes 32 discs and chooses one color to use throughout the game.

Black places two black discs and White places two white discs as shown in Figure 1.

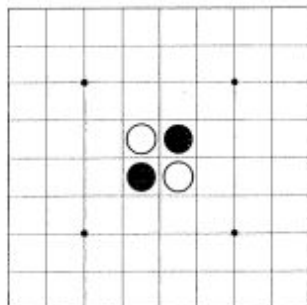


FIGURE 1

The game always begins with this set-up.

A move consists of 'outflanking' your opponent's disc(s), then flipping the outflanked disc(s) to your color.

To outflank means to place a disc on the board so that your opponent's row (or rows) of discs is bordered at each end by a disc of your color. A row may be made up of one or more discs.

Here's one example: White disc A was already in place on the board. The placement of white disc B outflanks the row of three black discs.



White flips the outflanked discs and the row now looks like this:



OTHELLO RULES

1. Black always moves first.
2. If a player **cannot** outflank and flip at least one opposing disc, they forfeit their turn and their opponent moves again. However, if a move is available a player may not forfeit their turn.

3. A disc may outflank any number of discs in one or more rows in any number of directions at the same time - horizontally, vertically or diagonally. A row is defined as one or more discs in a continuous straight line. (See Figures 2 and 3).

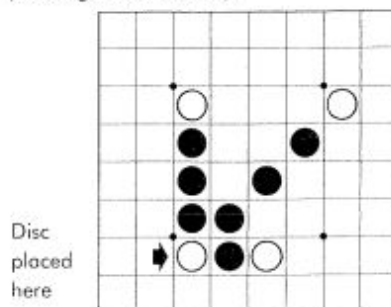


FIGURE 2

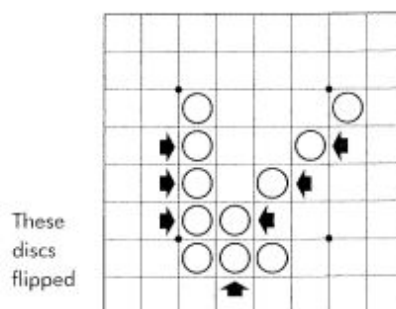


FIGURE 3

4. Players may **not** skip over their own color disc(s) to outflank an opposing disc. (See Figure 4.)

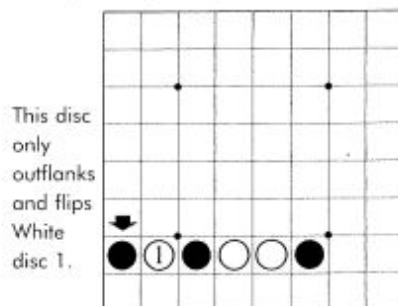


FIGURE 4

5. Disc(s) may only be outflanked as a direct result of a move and **must** fall in the **direct line** of the disc placed down. (See Figure 5 and 6).

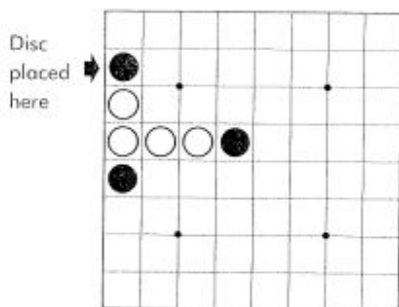


FIGURE 5

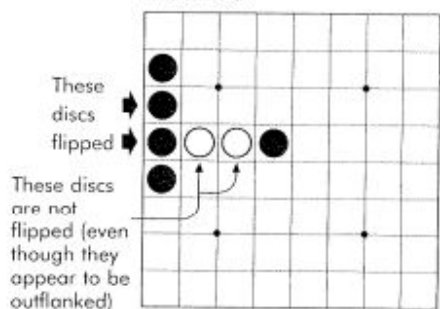


FIGURE 6

6. All discs outflanked in any one move **must** be flipped, even if it is to the player's advantage not to flip them at all.
7. A player who flips a disc which should **not** have been turned may correct the mistake as long as the opponent has not made a subsequent move. If the opponent has already moved, it is too late for change and the disc(s) remain as is.
8. Once a disc is placed on a square, it can **never** be moved to another square later in the game.
9. If a player runs out of discs, but still has the opportunity to outflank an opposing disc on their turn, the opponent **must** give the player a disc to use. This can happen

as many times as the player needs and can use a disc.

10. When it is no longer possible for either player to move, the game is over. Discs are counted and the player with the majority of their color showing is the winner.

Note: It is possible for a game to end before all 64 squares are filled.

SAMPLE GAME

Black moves first. A black disc can be placed on square C4, D3, E6 or F5 to outflank a white disc. Black decides to place a disc on square C4. (See Figure 7).

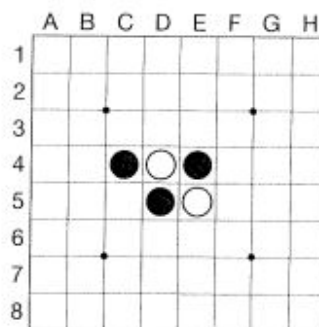


FIGURE 7

The outflanked white disc between the two black discs is flipped over.

(See Figure 8.)

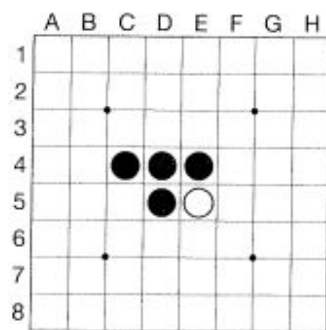


FIGURE 8

It is now White's turn. A white disc can be placed on square C3, E3 or C5 to outflank a black disc. White decides to place disc on C3. (See Figure 9).

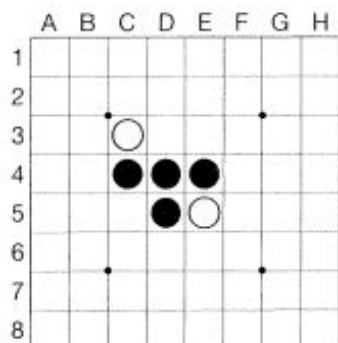


FIGURE 9

The outflanked black disc between the two white discs is flipped over (See Figure 10.)

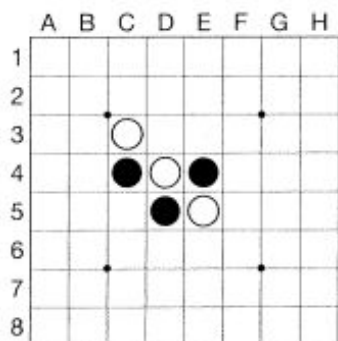


FIGURE 10

The game continues in this way until neither player can move. The player with the most discs at this point is the winner.

SCORING

Players desiring to score their games may do so by determining the margin by which a player won a game. The smaller number of discs are simply subtracted from the larger number of discs.

Players may also set up their own methods of scoring. For example, establishing a predetermined number of games or points to win by a series of games.

OTHELLO STRATEGY

Before reading any further we suggest that you play a few games first to familiarize yourself with how the game works.

The rules for Othello are very simple and the final goal is clear enough, but what exactly do you do in the early and middle stages of the game? Hopefully, the following ideas will help you develop winning strategies and improve your game.

The corners are special. Corner discs can never be outflanked and, often, can protect whole collections of discs from enemy capture. In Diagram 1 the black disc at H8 protects the entire black group - no matter what happens during the rest of the game, there is no way White will ever be able to capture any of the black discs already on the board.

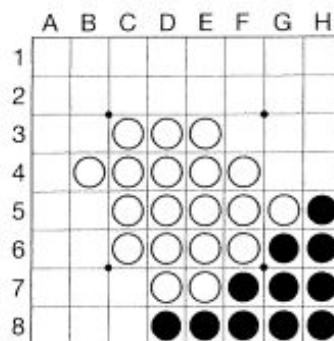


DIAGRAM 1

At times, it might be a bad idea to place a disc next to an empty corner - you may be giving your opponent a chance to take that corner. For instance, in Diagram 2 White

can now move to corner H8 because of the black disc at G7.

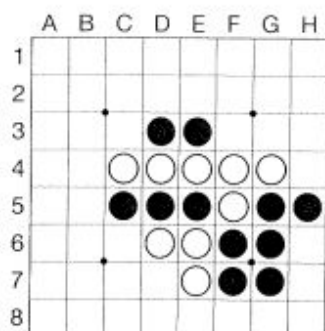


DIAGRAM 2

Sometimes it can be difficult or impossible to find a way to capture a corner even though your opponent has moved into one of the 'dangerous' squares right next to it. In Diagram 3 although White has a disc next to corner A1, Black cannot take the corner immediately. However, if Black plays at A3, White will have no way to stop Black from taking the corner on Black's next turn.

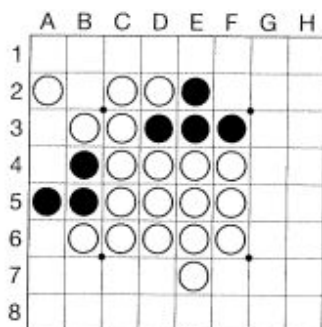


DIAGRAM 3

Sometimes it is possible to develop a plan for capturing a corner even though your opponent does not yet have a disc on a 'dangerous' square.

For example, Diagrams 4 and 5 illustrate what will happen if Black moves to E8.

On White's turn, the only place White can go is B2 - the only square from which White can outflank a black disc as the rules require. After this move, Black can move to corner A1.

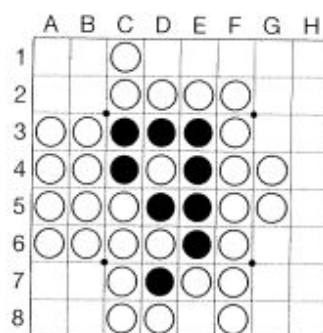


DIAGRAM 4

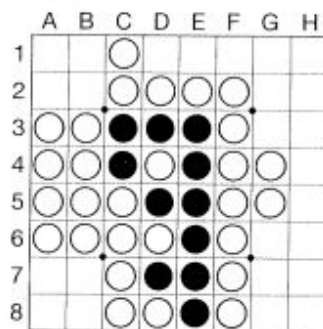
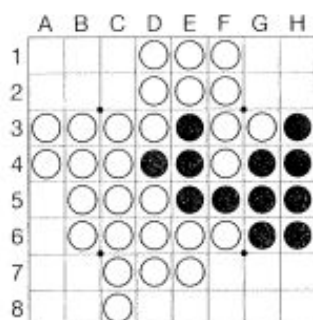


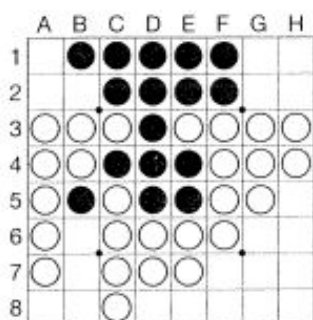
DIAGRAM 5

PUZZLES

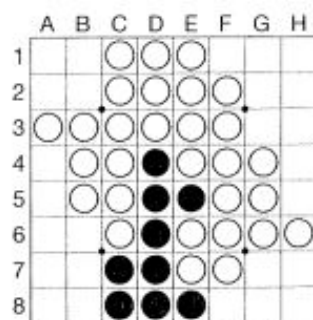
Each of the following five puzzles (#1 to #5) illustrates how Black can make a move that will guarantee them the chance to capture a corner on their next move. In each case it is now Black's turn. Look at all the places Black can go (including the 'dangerous' squares) and try to find the move that will force White into offering Black a corner.



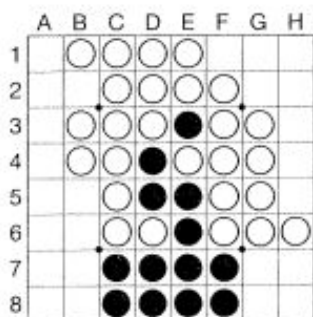
PUZZLE #1



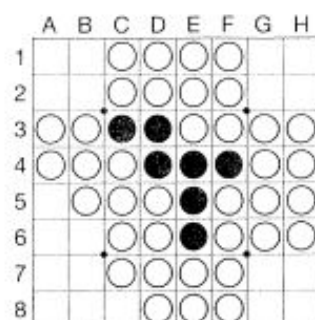
PUZZLE #2



PUZZLE #3



PUZZLE #4



PUZZLE #5

PUZZLE SOLUTIONS

PUZZLE #1 - Black should play at H2.

White will have only one place to go - H7 - and Black will then be able to take corner H8.

PUZZLE #2 - Black should play at B6. This will leave White with only two alternatives - B7 and G1. If White goes to B7, Black can move to corner A8. If White should move to G1 instead, Black would be able to take the corner at H1.

PUZZLE #3 - Black should move to F8. White will have only two possible moves - B7 and B8, both of which make it possible for Black to move to corner A8.

PUZZLE #4 - Black should play at G1. This offers White only four possible choices - B8, F1, G2 and G8. Each of these moves opens up a corner to Black.

PUZZLE #5 - Black should play at G7. White is left with two possible moves - G8 and H7. Either move will make it possible for Black to capture corner H8 because White's move will change the color of Black's original disc at G7.

With careful play Black can go on to win all five of the games depicted in the puzzles.

etting the first corner in each game will be helpful to Black, but that's not the main reason Black should win (even if you get all four corners it is still possible to lose the game). Black should win because White has lost control. In each game, there are not a lot of places White can go on their turn, though there are plenty of empty squares on the board. In contrast, each time it is Black's turn, Black has many possible moves to choose from. Black can proceed gradually accumulate discs that White will have no access to without ever opening up a lot of new choices for White. In fact, Black could win the game shown in Puzzle #1 without ever offering White a chance to make a decision - at each turn White would have only one possible move. You can see this for yourself by setting up the board as it appears in Puzzle #1 and playing the game through the following sequence of moves.

Black's moves are in bold: **H2**, H7, **H8**, H2, **A5**, A6, **H1**, G1, **C1**, C2, **G7**, F7, **G8**, F3, **E8**, D8, **B7**, B8, **A8**, A7, **A2**, B2, **B1**, B1. Black wins 54 to 10.

Gaining control of game is so important that players deliberately allow their opponents to capture corners when they think this will eventually give them control.

In your games, try to anticipate how your moves will affect your opponent's moves. Try to leave them with as few choices as possible. It is usually a good idea not to capture too many squares in the early stages. Remember that your opponent must outflank one or more of your discs on each turn. If you have only a few discs on the board, you can minimise your opponent's options.

HANDICAPS

There is a slight advantage in going first. Therefore, the more experienced player may give this advantage to the less experienced player. After one game, the winner may wish to let the loser go first. These rules should be established before starting a series of games.

When a skilled player is playing against an unskilled player, the skilled player may take on a handicap by setting up the board to give their opponent a four corner advantage, as White (the skilled player) is doing in Figure 11. If the difference in skill is not so great, the more skilled player may give only one, two or three corner advantages.

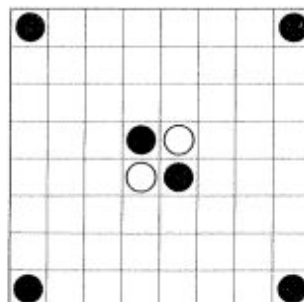


FIGURE 11

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