

Reversi

For help, select a topic below.

- [Reversi Rules](#): The rules of the game.
- [Playing Reversi](#): Instructions on how to play.
- [Menu Options](#): Details the function of each menu item.
- [Setting Game Options](#): Describes how to access and customize the game options.
- [Strategy Guide](#): Provides some basic tips on play.

Reversi Rules

Reversi is a two-player strategy game played on an 8x8 board using discs that are colored white on one side and black on the other. One player plays the discs black side up while his opponent plays the discs white side up.

Object of the Game

The object of the game is to place your discs on the board so as to outflank your opponent's discs, flipping them over to your color. The player who has the most discs on the board at the end of the game wins.

Rules

Note: For convenience, board positions are denoted by a letter representing the column (A through H) and a number representing the row (1 through 8). For example, the top-left square on the board is referred to as A1 while the square to the right of it is referred to as B1.

1. Each player chooses a color to play (see [Setting Game Options](#)).
2. Every game starts with four discs placed in the center of the board, as shown in Figure 1.

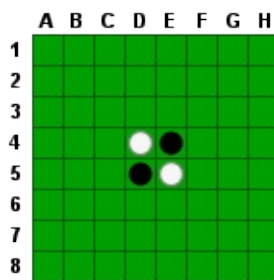


Figure 1

3. The players choose who goes first (see [Setting Game Options](#)).
4. Players take turns making moves. A move consists of a player placing a disc of his color on the board. The disc must be placed so as to outflank one or more opponent discs, which are then flipped over to the current player's color.

Outflanking your opponent means to place your disc such that it traps one or more of your opponent's discs between another disc of your color along a horizontal, vertical or diagonal line through the board square (see [Notes](#) below).

Example: Starting with the initial game set up (Figure 1), suppose Black is to move first. He may place a disc at C4, D3, E6 or F5. Placing the disc at C4, as shown in Figure 2, Black flips over White's disc at D4 (Figure 3).

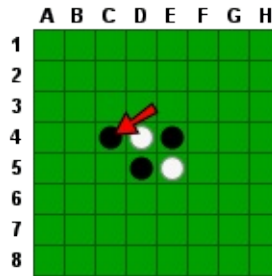


Figure 2

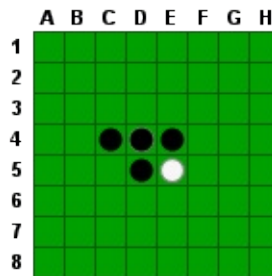


Figure 3

White moves next and may play C3, C5 or E3.

5. If a player cannot make a legal move, he forfeits his turn and the other player moves again (this is also known as passing a turn). Note that a player may not forfeit his turn voluntarily. If a player can make a legal move on his turn, he must do so.
6. The game ends when neither player can make a legal move. This includes when there are no more empty squares on the board or if one player has flipped over all of his opponent's discs (a situation commonly known as a wipeout).
7. The player with the most discs of his color on the board at the end of

the game wins. The game is a draw if both players have the same number of discs.

Notes

When making a move, you may outflank your opponent's discs in more than one direction. All outflanked discs are flipped.

Example 1: In Figure 4, suppose White has the next move and plays E7 (Figure 5).

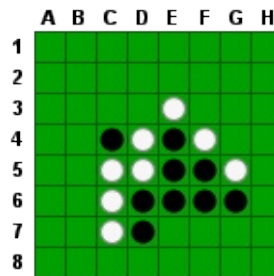


Figure 4

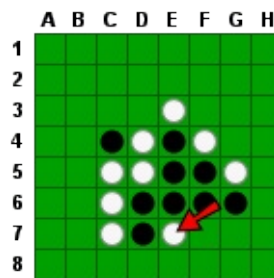


Figure 5

With this move, White flips over Black's discs in four different directions: E4, E5, and E6; D6; F6 and D7. The result is shown in Figure 6.

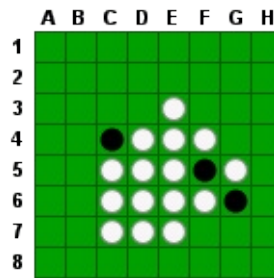


Figure 6

Note that while Black's disc at F5 is now outflanked by White's discs in

two directions, it is not flipped. Only the opponent's discs that are directly outflanked by the disc being played are flipped.

Example 2: Take a look at Figure 7. White moves by taking A5 (Figure 8).

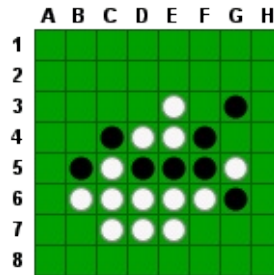


Figure 7

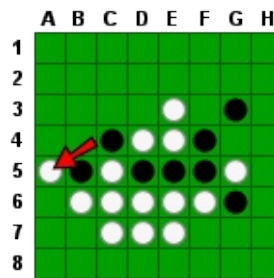


Figure 8

This flips Black's disc at B5 (Figure 9), but the discs at D5, E5 and F5 are not flipped because they were not directly outflanked by White's move to A5.

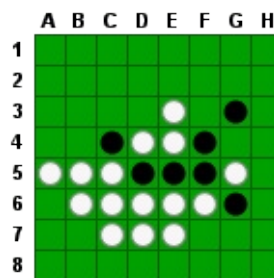



Figure 9

For tips on playing effectively, see the [Strategy Guide](#).

Playing Reversi

Starting a Game

Click on the **New Game** button  on the tool bar or select **Game > New Game [Ctrl+N]** from the menu bar to begin play.



Making Moves



The **Current** indicator to the right of the board shows the color of the player who has the current move. The status area at the bottom of the window will also indicate the current player.

On your turn, you may make a move either by clicking on a board square with the mouse pointer or by typing the column letter (**A - H**) followed by the row number (**1 - 8**) on the keyboard. If the square you choose is not a legal move, it is ignored and you will have to select again (see [Reversi Rules](#) for details).


Once you or your opponent makes a move, the board will be updated and play continues with the next turn.

Undo/Redo Moves

You can undo the last move made by clicking on the **Undo Move** button  on the tool bar or selecting **Move > Undo Move [Ctrl+Z]** from the menu bar. Clicking on the **Redo Move** button  or selecting **Move > Redo Move [Ctrl+Y]** will restore the last move undone.


Both options can be used repeatedly to restore the game to any point in the current move history. You can also jump directly to the start of the game using the **Undo All Moves** button  on the tool bar or by selecting **Move > Undo All Moves [Ctrl+Shift+Z]** from the menu bar. Likewise, you clicking on **Redo All Moves** button  or selecting **Move > Redo All Moves [Ctrl+Shift+Y]** will restore all moves made so far.

Note that when you undo/redo moves while playing against the computer, play is automatically suspended on the computer's turns. To resume play

on the computer's turn, click on the **Resume Play**  button or select **Move > Resume Play [Ctrl+P]** from the menu bar and the computer will make it's move. To resume play on your turn, simply make a new move on the board.

Ending a Game

When the board is filled, or when neither player can make a legal move, the game is over and the outcome will be shown in the status area.

You can resign a game at any time by clicking on the **Resign Game** button  on the tool bar or selecting **Game > Resign Game [Ctrl+R]** from the menu bar. If you're playing against the computer, this awards the computer a win. When playing against another person, the opponent of the current player is awarded the win (see [Statistics](#)). In both cases, the winner is assigned a score of 64-0.

To start a new game, select **New Game** as described above.

You can exit the program at any time by closing the window or selecting **Game > Exit [Ctrl+X]** from the menu bar.

Menu Options

This section details all the items available from the main menu. Each can also be accessed via the indicated keyboard shortcut. Many of these options can be selected from the tool bar as well (see [Playing Reversi](#)).

Game Menu

- **New Game [Ctrl+N]**: Starts a new game.
- **Resign Game [Ctrl+R]**: Resigns the current game.
- **Options [Ctrl+O]**: Opens the game [Options](#) dialog.
- **Statistics [Ctrl+S]**: Displays the current win-loss-draw count and total scores from two perspectives: Black vs. White and Computer vs. User. You can clear these by pressing the **Reset** button. Press the **Close** button to close the window.
- **Exit [Ctrl+X]**: Exits the program.

Move Menu

- **Undo Move [Ctrl+Z]**: Allows you to undo the last move made. You can undo moves repeatedly, all the way back to the start of the game.
- **Redo Move [Ctrl+Y]**: Restores the previously undone move. May also be used repeatedly.
- **Undo All Moves [Ctrl+Shift+Z]**: Undoes all moves.
- **Redo All Moves [Ctrl+Shift+Y]**: Restores all moves.
- **Resume Play [Ctrl+P]**: Use this option to resume play when an undo/redo move has stopped on the computer's turn.

Help Menu

- **Help Topics [Ctrl+H]**: Opens this help window.
- **About [Ctrl+A]**: Displays program and version information.

Setting Game Options

The options dialog can be accessed via **Game > Options** from the menu bar or by pressing **Ctrl+O** on the keyboard.

After setting the options you want, press the **OK** button to save your changes. To exit without making changes, press **Cancel**.

You can restore all the options to their defaults by pressing the **Restore Defaults** button. Be sure to press **Ok** afterwards to save them or **Cancel** to abort the changes.

Display Options

Show valid moves: If checked, board squares that may be legally played by the current player are highlighted (see **Valid move color** below).

Preview moves: Checking this option will allow you to see the result of making a move on a particular square when you mouse over it.

Animate moves: When checked, moves are animated to show outflanked discs being flipped over.

Board color: Allows you to set the color of the board.

Valid move color: Defines the color used to highlight board squares where the current player can make a legal move. Note that **Show valid moves** must be checked to enable highlighting.

Active square color: This color is used to highlight a square under the cursor when that square represents a valid move for the current player.

Move indicator color: Sets the color used to circle the disc being played on the board during the move animation (see **Animate moves** above).

Player Options

First move: Specifies which player color moves first when a new game is

started.

Black player, White player: Use these to set who plays each color. You can play against the computer, against another user or let the computer play against itself.

Note that you can change players while a game is in progress. The [Statistics](#) are updated using the player settings in effect at the end of a game.

Difficulty Setting

Here you can choose the level of play the computer will use. The options are:

- **Beginner** - Good for new players. Be careful however, as the computer still plays a strong end game. Just when you think you're winning, it may find a way to turn the game around.
- **Intermediate** - Plays much smarter but can be beaten by a good player.
- **Advanced** - A tough opponent. To beat the computer at this level you must think well ahead and not make mistakes.
- **Expert** - Very difficult to beat. Good luck.

See the [Strategy Guide](#) for tips on playing.

Strategy Guide

This guide explains some common terms used in Reversi and describes a few general strategies for winning.

Stable Discs

A disc played in a corner cannot be outflanked. These are considered stable discs since the opponent cannot flip them.

During the course of a game, discs at other positions will become stable once they can no longer be outflanked. This makes gaining corner squares very advantageous. They can serve as an anchor to gaining stable positions starting along the adjacent edges.

Figure 1 below shows Black with nine stable discs anchored to the upper left corner.

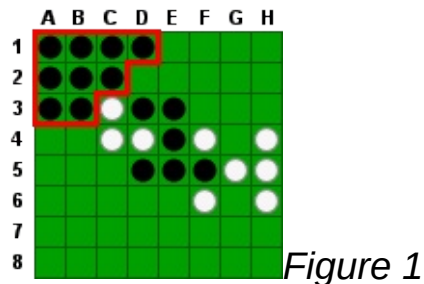


Figure 1

Positioning

While corner squares are desirable, making a move on a square next to an open corner is not. Doing so may open up the corner for your opponent.

Given the strategic importance of these squares, they are commonly referred to as C-squares and X-squares, as shown in Figure 2.

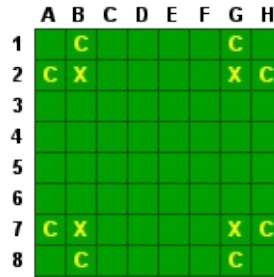


Figure 2

In particular, you should avoid playing the X-square next to an open corner.

Mobility

One strategy that is effective throughout the game is to leave your opponent with as few legal moves as possible while not limiting your own choices. This is called mobility.

This can force your opponent into making a bad move. Figure 3 shows a situation where, on White's turn, the player is forced to play B2 (an X-Square), as he has no other legal move.

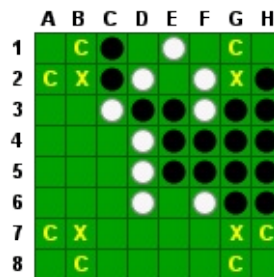


Figure 3

This leaves the board as shown in Figure 4.

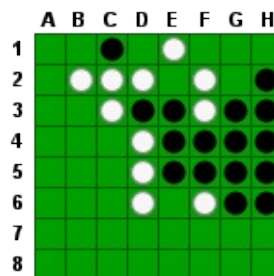


Figure 4

This allows Black to take the corner at A1, as seen in Figure 5.

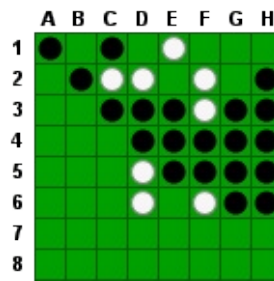


Figure 5

Forfeits

Leaving your opponent with no legal moves will force him to forfeit his turn. This can be very advantageous as you are able to play two (or possibly more) of your discs consecutively.

Likewise, you want to leave yourself with as many potential moves as possible, so you won't be forced to make a bad one or forfeit your turn. While the object of the game is to finish with more discs on the board than your opponent, it is often better to have fewer discs in the early stages of the game as this helps limit your opponent's choices.

Frontier Discs

One easy way to measure mobility is to count how many frontier discs you have vs. your opponent. A frontier disc is one that is adjacent to an empty square (including diagonals).

The fewer frontier discs you have, the fewer moves your opponent will likely have on subsequent turns.

In Figure 6, White has 16 discs in all while Black has ten. However, 15 of White's discs are on the frontier (the only White disc not adjacent to an empty space is at E5). Black has only five discs on the frontier.

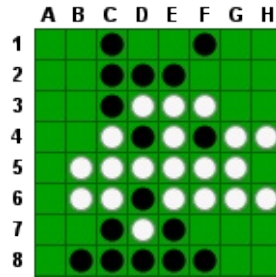


Figure 6

At this point, White has only three possible moves, at B4, B7 or B8. Two of those moves are next to the corner, which Black can subsequently take. Black, on the other hand, will have a number of possible moves to choose from on his next few turns.

Wedges

Take a look at Figure 7. If Black plays D1, he can take the corner at H1 on his next move. Because D1 is between two of White's discs along the edge, there would be no way for White to flip Black's disc back. Such a play is called a wedge.

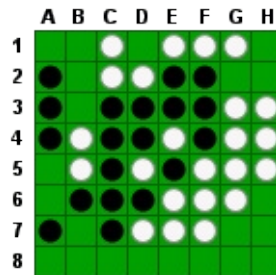


Figure 7

Also note the left edge of Figure 7, where Black has a pair of discs with two empty squares between them. If White were to play either the A5 or A6 square, Black could flip White's disc back by playing the other square. In general, if you have an odd number of empty squares between two of your discs along an edge, your opponent can play a wedge. But if you have an even number of empty squares between them, the wedge can be avoided.

Unbalanced Edges

Figure 8 shows a situation where Black has a row of five discs along the

left edge. This is commonly referred to as an unbalanced edge.

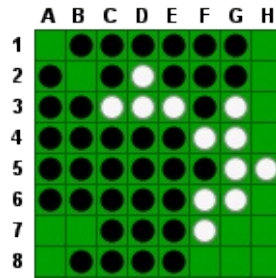


Figure 8

In Figure 9, White plays B7. This would normally be considered a bad move since it is an X-Square and, as in this case, will allow Black to take the corner at A8.

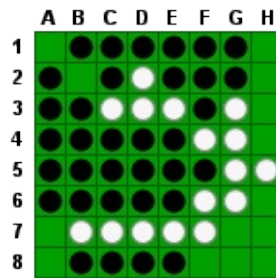


Figure 9

Black does so, as shown in Figure 10.

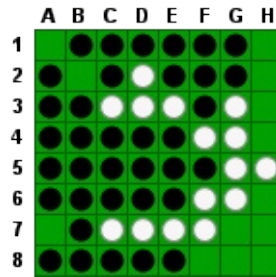


Figure 10

However, White can now play the wedge at A7. Figure 11 shows the result.

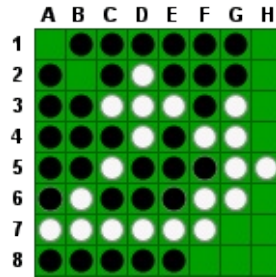


Figure 11

Black cannot do much at this point, settling for a move at H3 as seen in Figure 12.

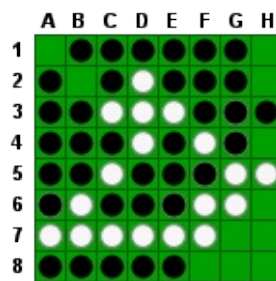


Figure 12

White can now take the corner at A1, shown in Figure 13. Note that White can subsequently take the corner at H1 on his next turn as well.

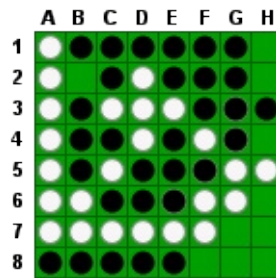


Figure 13

Parity

Near the end of a game, isolated regions of adjacent, empty spaces may appear on the board. Figure 14 shows an example where four such regions have formed, one near each corner of the board.

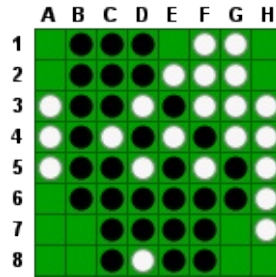


Figure 14

It is usually advantageous to make the last move in such regions. In the above example, White is to move next. By playing his disc in a region with an odd number of empty squares, he is likely to have the last move in that region (assuming neither player must forfeit a turn). Conversely, he should avoid making a move in a region with an even number of empty squares, as would likely give Black the advantage.

Obviously, White should not blindly give up a corner or allow Black to capture an edge (or avoid gaining the same) just to achieve this parity advantage. But combined with careful play, it could mean the difference between winning and losing in a close game.