OTHELLO:
FROM BEGINNER TO MASTER

A FEW WORDS

After the 2003 US National Championships, I set out on a mission to do what few others have even attempted – to write a book about Othello. Former World Champion Brian Rose has been writing his book for over 3 years and every time I asked the other tournament regulars about it, there was no new news on it. I finally decided that I was tired of waiting and started to work on my own book.

While most of my counterparts are usually only playing against other top players, I play many games against people who are still learning, and I think I have special insight into the kinds of questions that they might have. I've put a lot of effort into the diagrams and exercises, in fact, many of the exercises in this book are based on positions that I consistently see beginning level players misplay.

I'm sure that there are mistakes in this version. In fact, every time I go through it I find one more thing I need to fix, however, I think that the form that it is in now is suitable for general consumption. I'm still working on the rest of the book. It's taken me three full months to get through the beginner material. I imagine it will take me three months to four months get through the intermediate section, and another three months to four months get through the advanced section.

Once I finish all of this and re-edit it (add a table of contents, for instance), I intend to look for a publisher. If there is no interest in it from the established publishing community, I will be looking into selling it (the thought of printing out copies at Kinko's and shipping them myself has crossed my mind). Part of the reason I'm giving this away is that it's good for the Othello community. I'm also hoping that people will like it and it will generate interest in my book. If you have any comments, or you would like to point out any serious errors, please feel free to do so. I've set up a Yahoo group specifically for discussion about the book at http://groups.yahoo.com/group/randysothellobook.

Happy Flipping,

Randy Fang
October 26, 2003

INTRODUCTION

Forward

You're probably reading this book because you want to learn how to play Othello™* well. Maybe you've just learned the game or maybe you don't know it at all. My goal is to speed up the process to mastery by stepping you through many of the lessons that every master level player has learned through hard work and a lot of practice. I'll start off at the most basic level and progress from basic principles to some of the more flexible principles and exceptions that Master level players apply in championship level play.

In essence, what I'm trying to do is write the Othello equivalent of Nimzovich's My System (a chess book). At the current time, there is no book in the Othello world to form the basis for discussion and analysis of games. Most master level discussions in the US occur over a real board at infrequent tournaments and I've tried to present as much of the terminology as possible. By no means is all the information complete and it's only as accurate as myself and the people I've consulted while writing the material. Just like My System has done in chess – this book is meant to provide a basis for analytical discussion as well as revisions and exceptions to the theories presented.

I'd also like to take this opportunity to thank everyone who is involved in the Othello community for their support. I'd particularly like to thank Gunnar Anderson for making WZebra and its toolset for making the images in this document freely available.

Finally, many deserved thanks go out to my two editors and good friends: Amanda Jones (writing style and beginner level feedback) and Edmund Yiu (technical and master level feedback).

Tools of the Trade

Two Options – High Tech and Low Tech

Before we start, I'd like to take a moment to talk about what equipment you might want to get your hands on before reading this book. As a minimum requirement, you'll need to have an Othello board of some kind on hand to play a few sample games with yourself or preferably with an opponent to get a feel for the rules and principles that I will introduce.

If you're more technologically inclined , I recommend you download WZebra from the Internet (http://www.nada.kth.se/~gunnar/othello.html). You can use it to set up the positions presented in the book or to play a few quick games to get acquainted with how to play. For beginning through advanced players, the lowest skill setting on WZebra will provide a HIGHLY challenging opponent , don't be discouraged, WZebra is a very strong player. You might consider downloading one of the "weaker" Othello playing programs to play with so you don't get discouraged. A much better idea is to seek out competition on the Internet. There are several places that you can play online, here's a short list of some of the sites that are available and the advantages and disadvantages of each:

Gaming Site	Advantages	Disadvantages
MSN Gaming Zone (http://zone.msn.com/reversi)	Slightly "friendlier" interface than the rest.	Can't resume a game after a disconnection Non-standard color scheme Cheaters No Timed Games
Yahoo Games (http://games.yahoo.com)	Ability to resume games after a disconnection Timed Games	Starting position is backwards Cheaters
Kurnik.pl (http://kurnik.pl/en)	Ability to resume games after a disconnection Timed Games Database of previous games	Mostly Polish players – Not many English speaking players
Playsite (http://www.playsite.com)	Ability to resume games after a disconnection Timed Games	Lack of players
Vinco Online Games (VOG) (http://vogclub.com)	High quality human competition Ability to resume games after a disconnection Timed Games Database of previous games Partially effective anti-cheat features	**NOT FREE** Many people have attitude problems

Othello Notation

Standard Starting Position
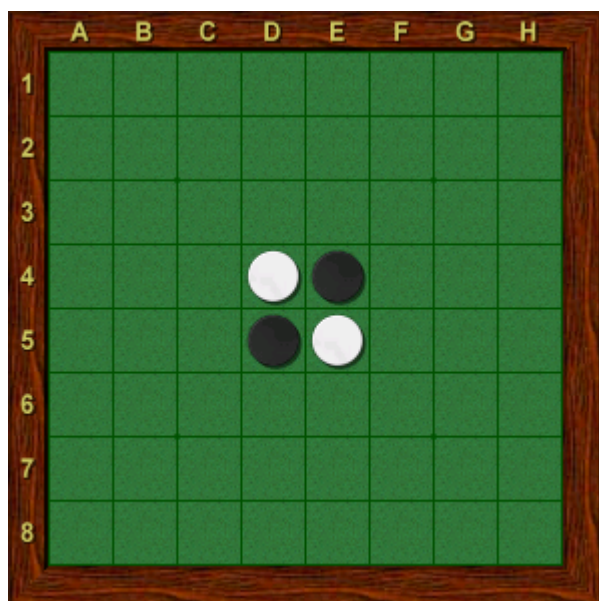
On the left you'll find the standard Othello starting position. Each side starts with two disks in the center of the board.

Standard Othello notation is based on a grid. The letters run from left to right and represent the columns. The numbers run from top to bottom and represent the rows. This means that the top-left corner is A1, the bottom-left corner is A8, the top-right corner is H1, and the bottom-right corner is H8. In the standard starting position, black has disks at E4 and D5. White has disks at D4 and E5.

All the diagrams in this book will have the columns and rows labeled appropriately on the top and left edges so, while memorization of this grid will be helpful, it should not be necessary.

Rules of Othello

Objective

To have the most discs at the end of the game.

General Rules

- Each player starts with 32 disks at hand. One side of each disk is black, the other side is white.
- One player plays their disks white side up and the other player plays their disks black side up. The player playing their disks white side up is called white, the player playing their disks black side up is called black
- Black always plays first.
- Both players take turns playing valid moves into empty squares. (Black plays, then White plays, then Black plays, then White plays, etc). After playing a valid move, the appropriate disks are "flipped" to the current player's color. (See the following example for more details on valid moves and flipping disks).
- If a player has no valid moves– they must pass their turn. The other player then plays a second turn in a row. If the second player still has no legal moves, they must pass again. This means that a player can potentially move 2, 3, or even 15 times in a row. When a player passes, they give one of their disks to their opponent.
- The game ends when both players have no legal moves – in most cases this is when the board has no empty squares left. In rare cases – the game will end because neither player has a legal move in the position.
- Valid Moves:
    - Moves must be played to an empty square adjacent to a disk of the opposing color
    - You must play a move that "outflanks" disks of the opposing color. Disks that are "outflanked" are flipped to the color of the disk that was played.

A Simple Example:
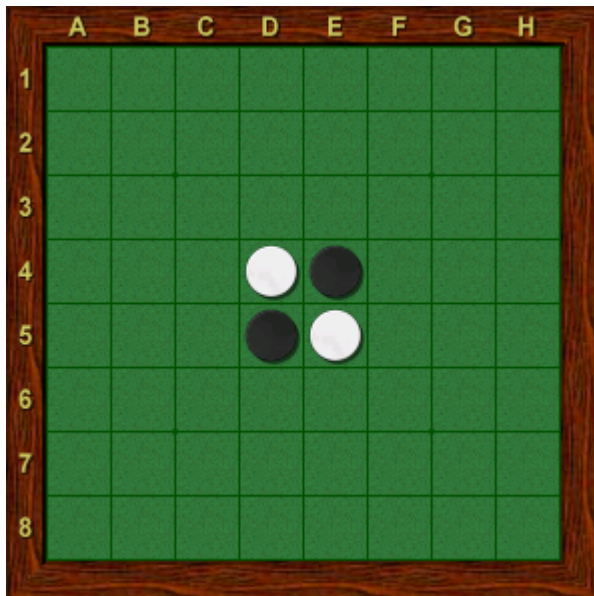
STANDARD START POSITION
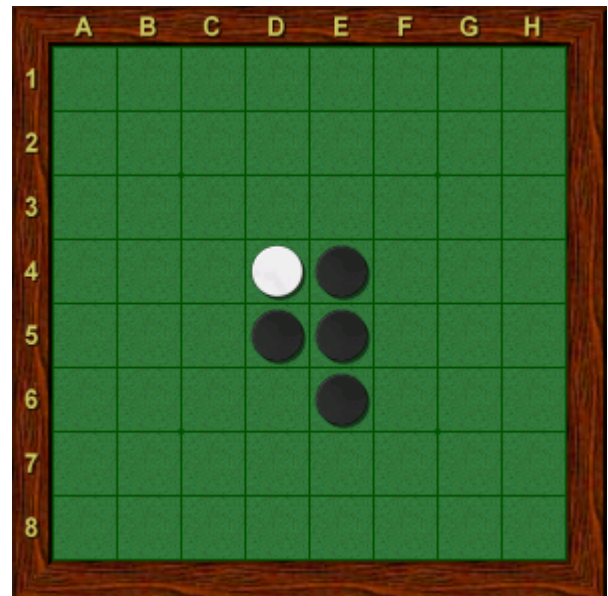
AFTER BLACK PLAYS E6

From the standard starting position, black plays a move to the E6 square. The E4 and E6 disks now outflank the disk on the E5 square and the white E5 disk is flipped to black.
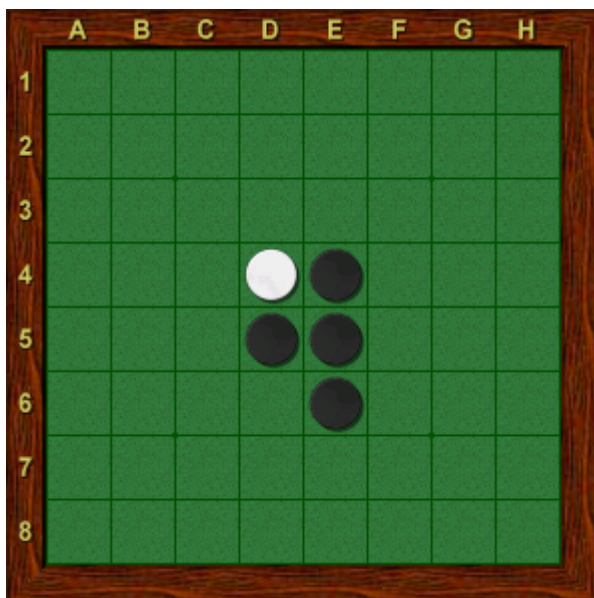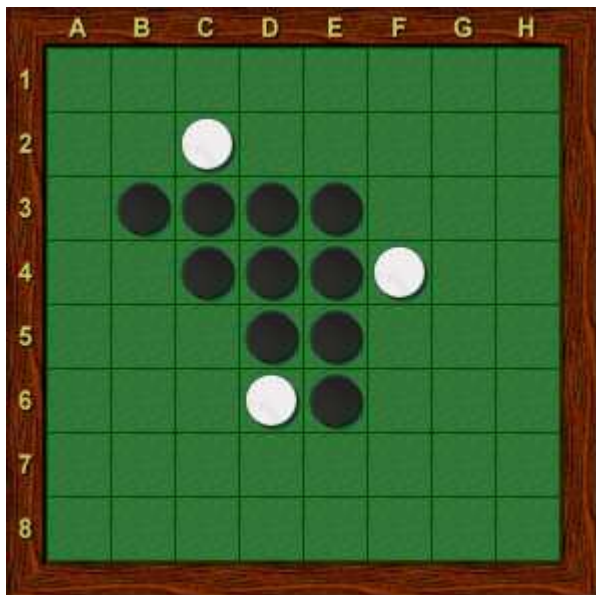

BEFORE WHITE PLAYS F4
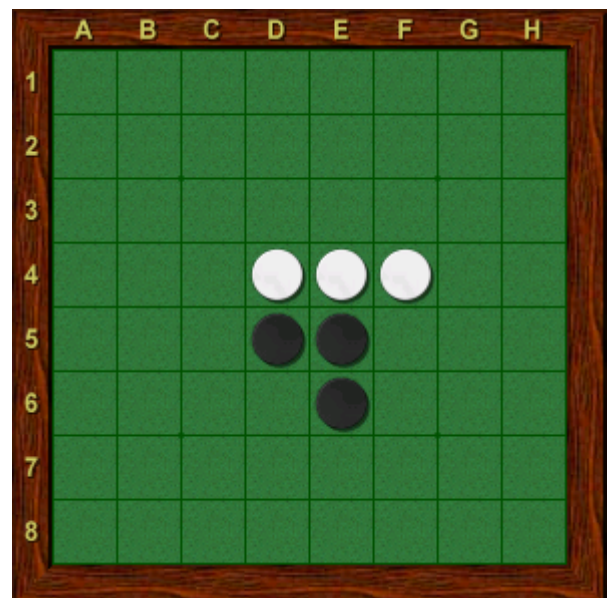
AFTER WHITE PLAYS F4

As the second move of the game, the white player plays to the F4 square. The disk on E4 is outflanked by the D4 and F4 disks and it is flipped to white.
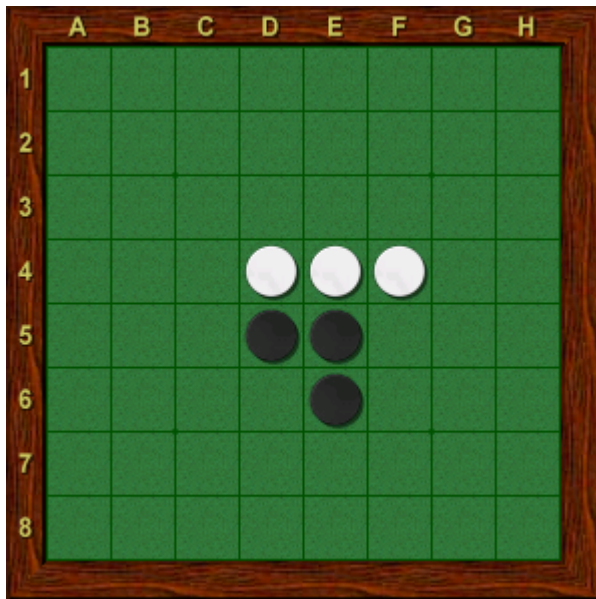
BEFORE BLACK PLAYS C3
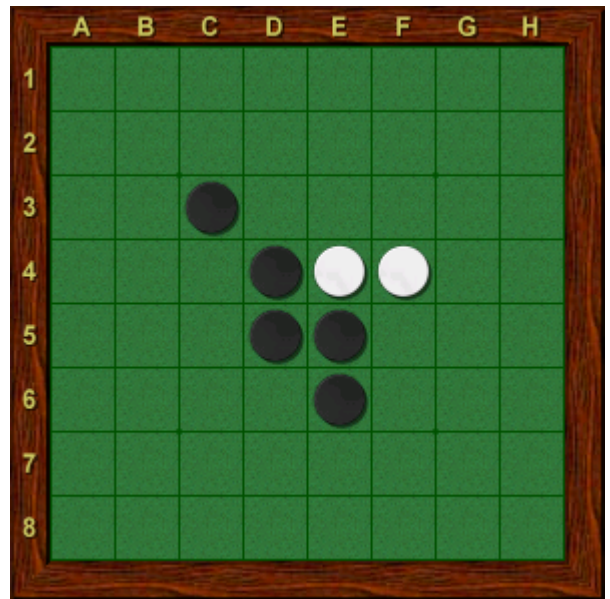
AFTER BLACK PLAYS C3

Note that disks can also be outflanked diagonally. For instance, for the third move of this game, the black player plays C3 and the disk on D4 is outflanked by the disks on C3 and E5 and it is flipped.

A Few More Complicated Examples:

BEFORE WHITE PLAYS C5
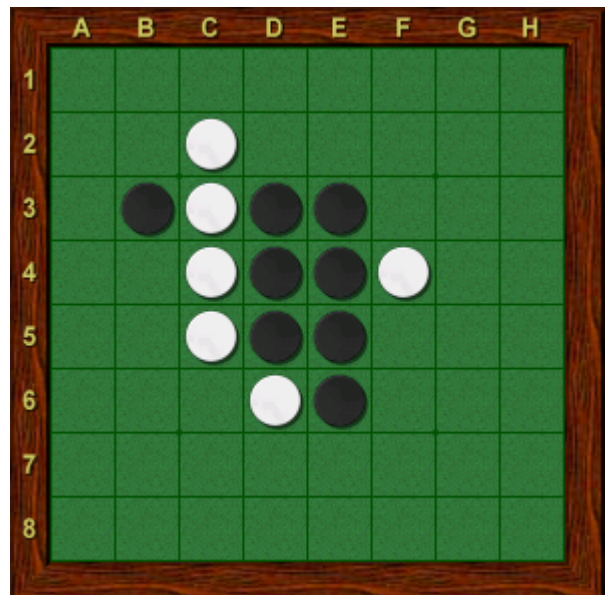
AFTER WHITE PLAYS C5

In this position, white plays to C5 outflanking the disks on C3 and C4 and they are flipped. Note that there aren't any "chain reactions" , for instance, even though the disks on D4 and E4 are now "outflanked" by the disks on C4 (which just flipped) and F4 – they are NOT flipped.
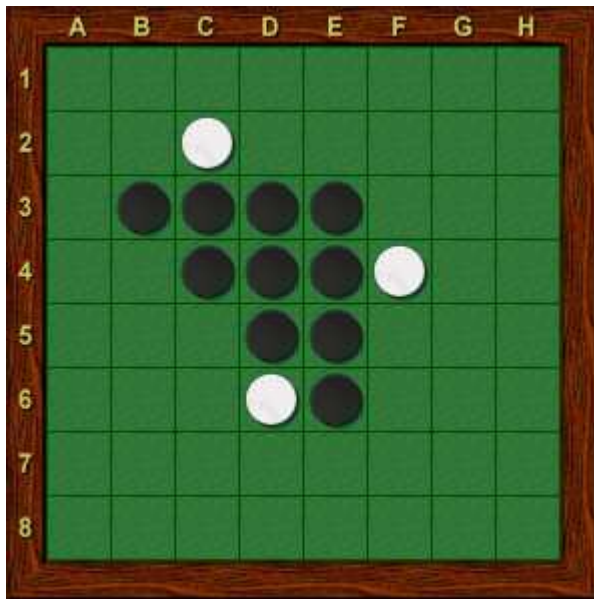
BEFORE BLACK PLAYS D2
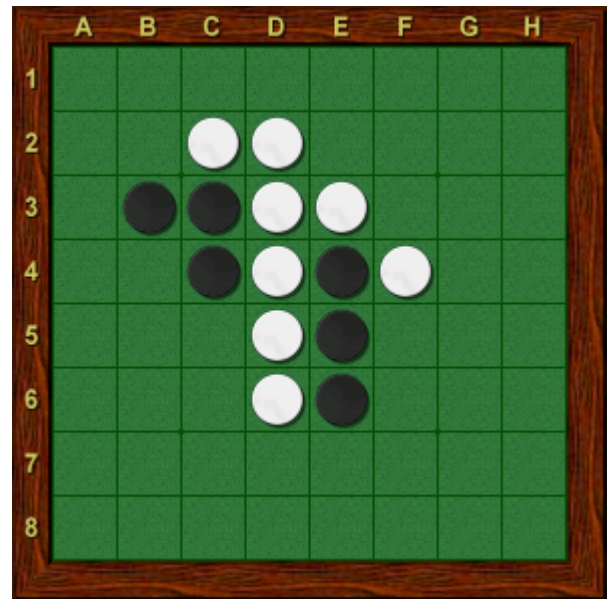
AFTER BLACK PLAYS D2

Disks can also be flipped in more than one direction. For instance, in the above diagram, white plays D2 and the disks D3, D4 and D5 are outflanked by D2 and D6 and the disk on E3 is outflanked by the disks on D2 and F4.

Othello Transcripts

For full games, Othello transcripts are written in a "60 move" format. Each played move is labeled with the move number that it was played on. The middle 4 squares (the start position) are left unmarked as they were there when the game started. Here's an example of a transcript and the corresponding position after 10 moves.

Exercise: Play through the transcript below and verify that you end up in the expected position.
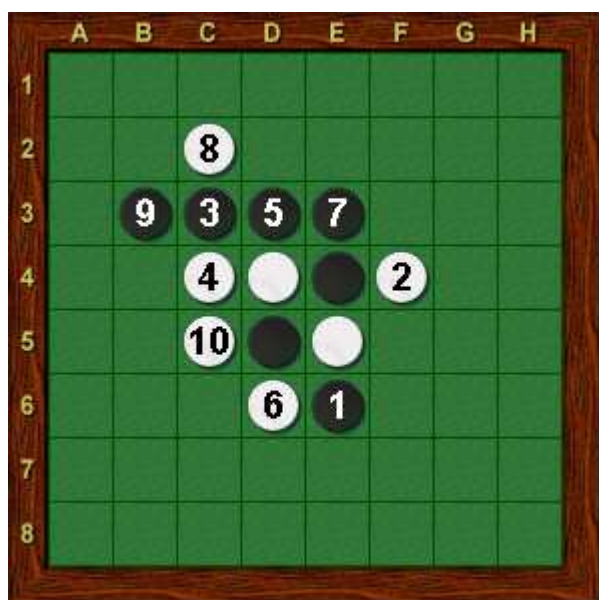
TRANSCRIPT
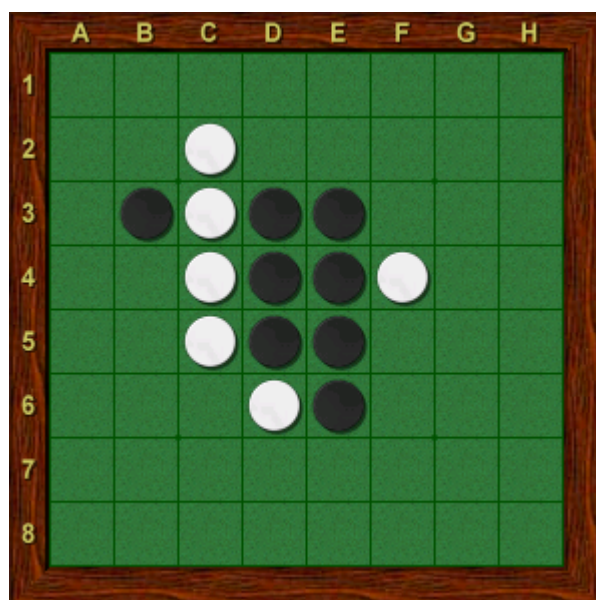
FINAL POSITION

In this book, I will often start with a diagrammed example position. If I want to demonstrate some concept from that position, I will create a transcript in a similar format. The disks that represent the original diagram are unmarked, and the moves that are played are labeled (starting at one). An example of this appears on the following page.
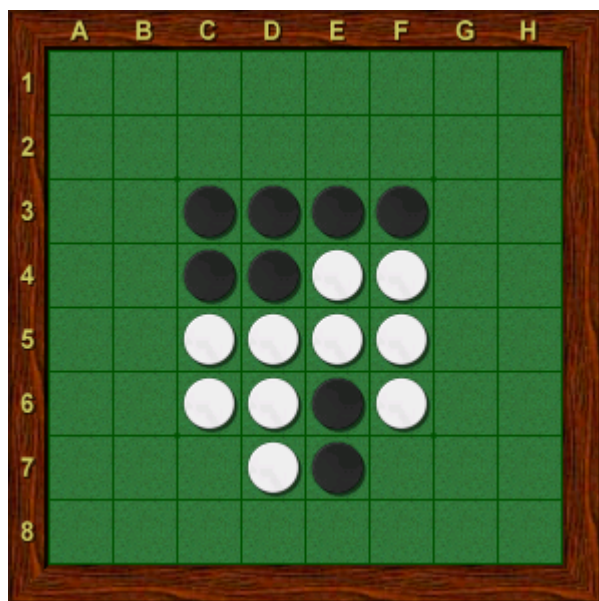
EXAMPLE POSITION
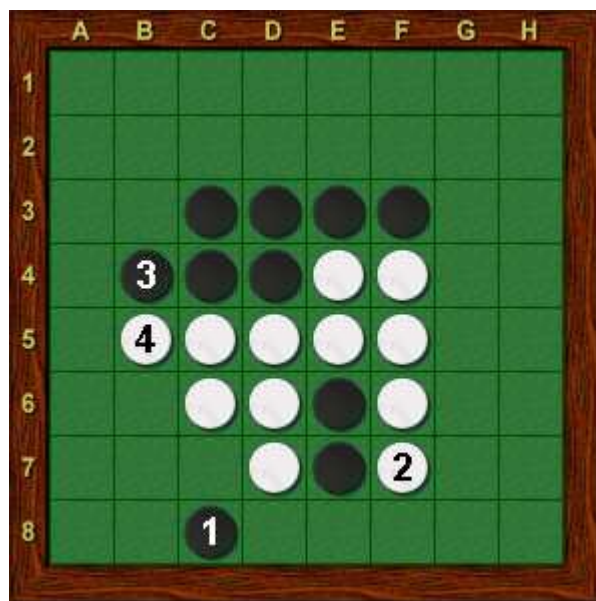
EXAMPLE TRANSCRIPT
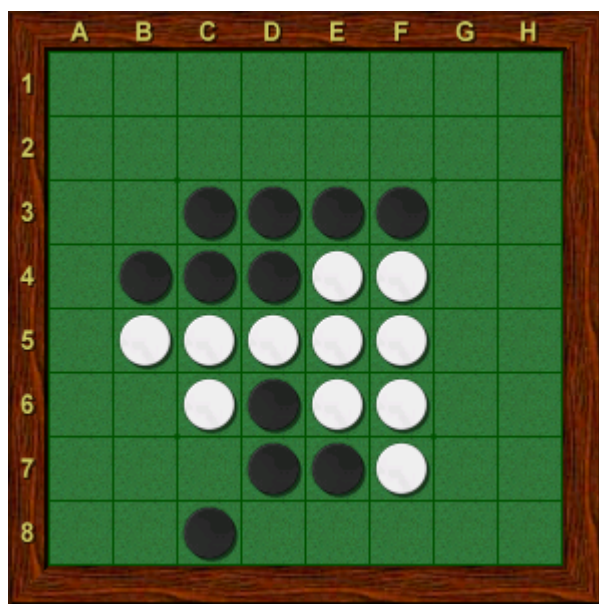
Final Position

The picture to the left displays the resulting board after the indicated moves have been played

Near the beginning of the book, I will rely heavily on move to move pictures to help you visualize the positions and what is happening without needing a board. As we move on to more advanced topics (and you become accustomed to visualizing the resulting positions), I will start using the above transcript format to describe games and concepts.

Exercises: The following two games were played at previous World Othello Championships. Follow through them on a real board and verify that you end up in the expected ending position. If you didn't you should try again because you must have misflipped.

SEELEY VS. SHAMAN – 2002 WORLD OTHELLO CHAMPIONSHIP – FINALS – GAME 1

CASPARD VS. MURAKAMI – 1998 WORLD OTHELLO CHAMPIONSHIPS – FINALS – GAME 3

Exercises: Find the valid moves in the following positions. The following positions are taken from a game between former US Champion Raphael Schreiber and former US and World Champion Brian Rose at the 2000 US National Championships.
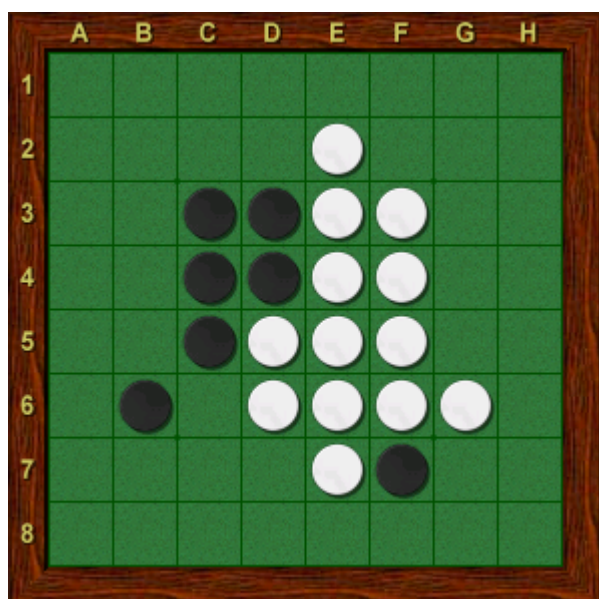
1. BLACK TO PLAY
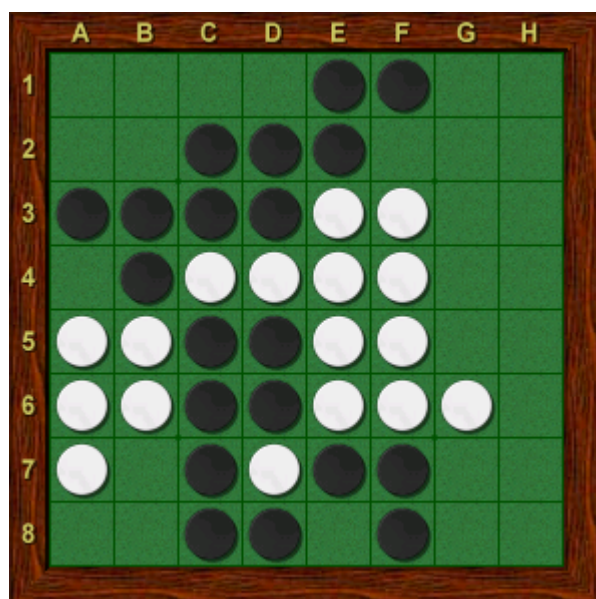
2. WHITE TO PLAY
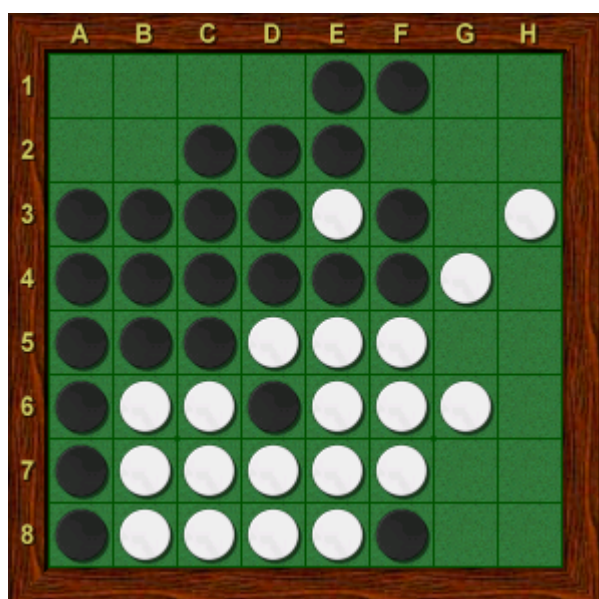
3. BLACK TO PLAY
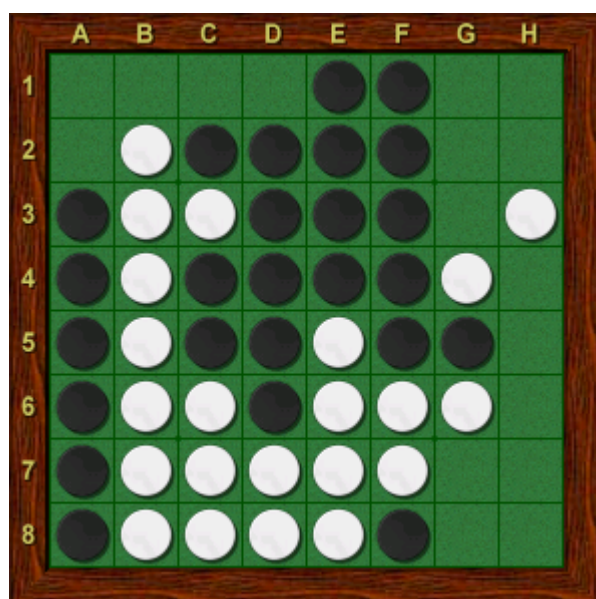
4. WHITE TO PLAY

Answers:

1. D7, F1, F2, F8, G3, G4, G5, G7, H5, and H7 are the legal moves for black
2. A2, A4, B1, B2, B7, B8, C1, D1, E8, G7, and G8 are the legal moves for white
3. F2, G5, G7, G8, H4, H5, H6, and H7 are the legal moves for black
4. B1, C1, D1, G1, G2, G3, G8, H4, and H5 are the legal moves for white.

FOR BEGINNERS

Othello 101

I'd like to start with a metaphor. In chess, the first step that a beginner would take is to understand the relative value of the different chess pieces. A beginner's book on chess might start by showing the readers a short table like the following. If the total value of your pieces is more than the value of your opponents pieces then you're probably winning.

Queen	9 pts
Rook	5 pts
Bishop	3 pts
Knight	3 pts
Pawn	1 pts

Using this simple rule, a complete beginner at chess would expect to win more than half of their games against another complete beginner who doesn't know it. Obviously, in any undertaking as complex as chess, one simple rule falls far short of complete understanding. As a beginner becomes more advanced and progresses, they will learn new rules – as well as some exceptions to them. In much the same way, we will begin with a few basic rules of winning Othello and then build on them.

Corners Are Good

For beginning and intermediate players, games often revolve around battles for corners. As a first step, let's take a look at a classic example of how important corners are.
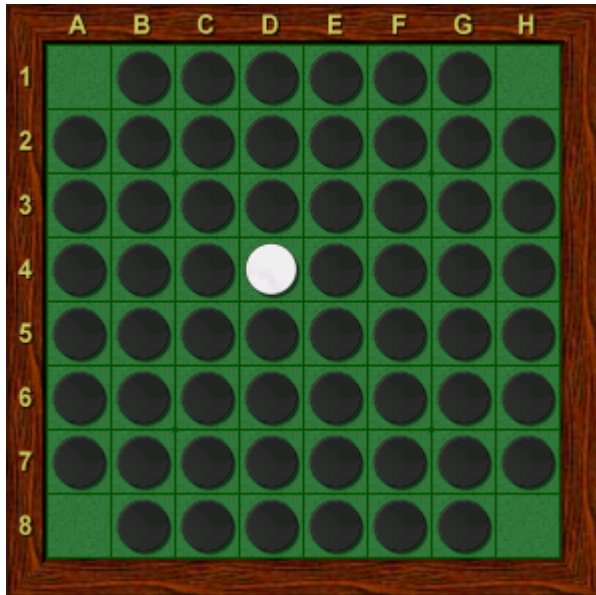

White To Play

Looking at the above position, a complete beginner might assume that black is winning by a large margin. After all, black has 59 disks while white only has 1. Unfortunately, not very many of black's disks will remain black at the end of the game, in fact, in this position, white will get to play to all four corners (because black will have no legal moves) and will win the game. It doesn't matter what order the moves are played in as they all result in the same finishing position. Let's look at the moves as they're played.
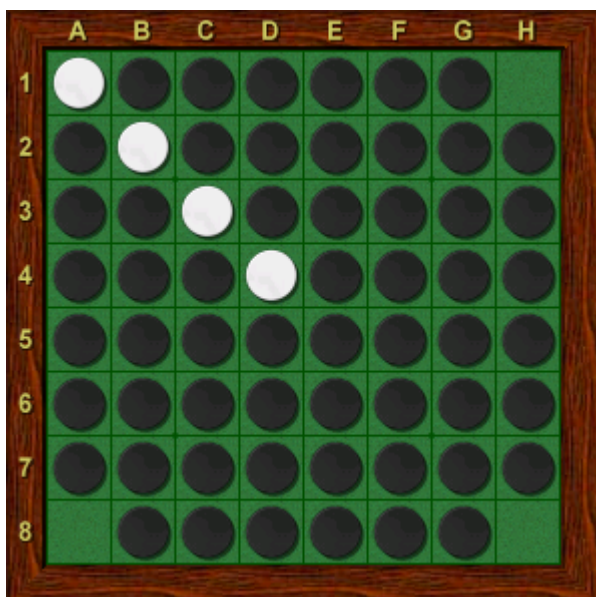
WHITE PLAYS A1
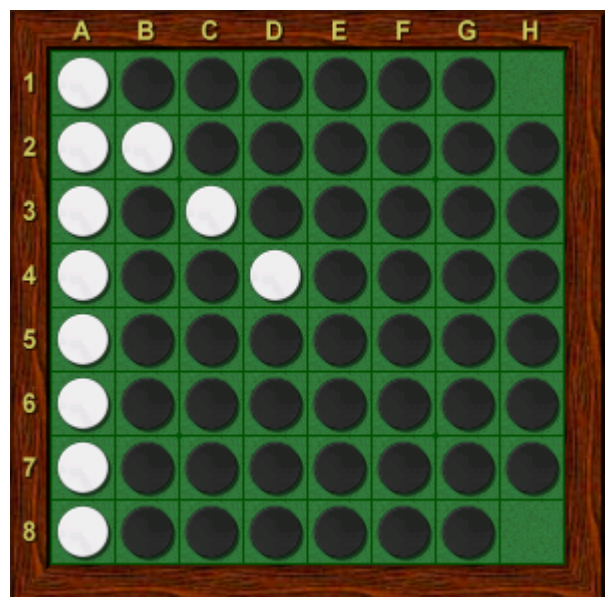
WHITE PLAYS A8
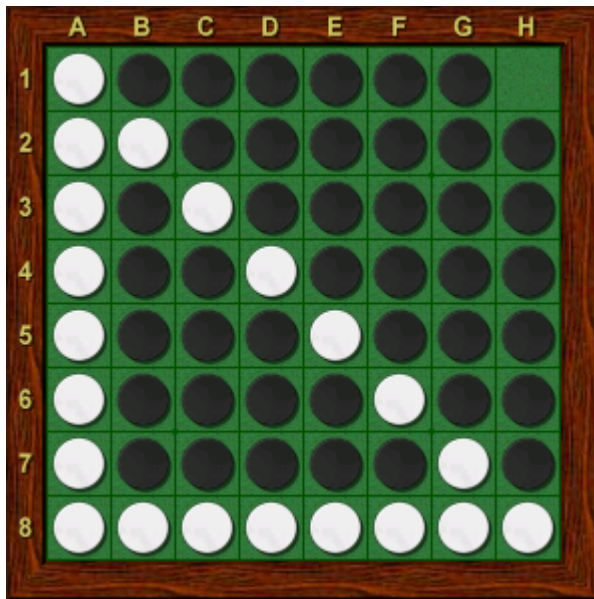
WHITE PLAYS H8
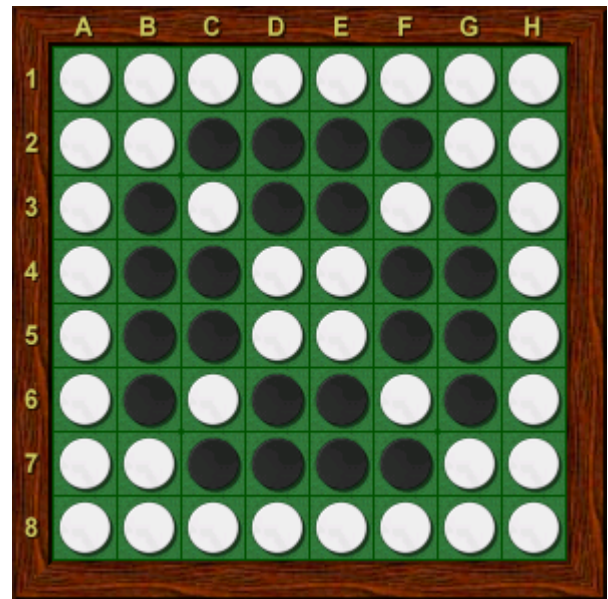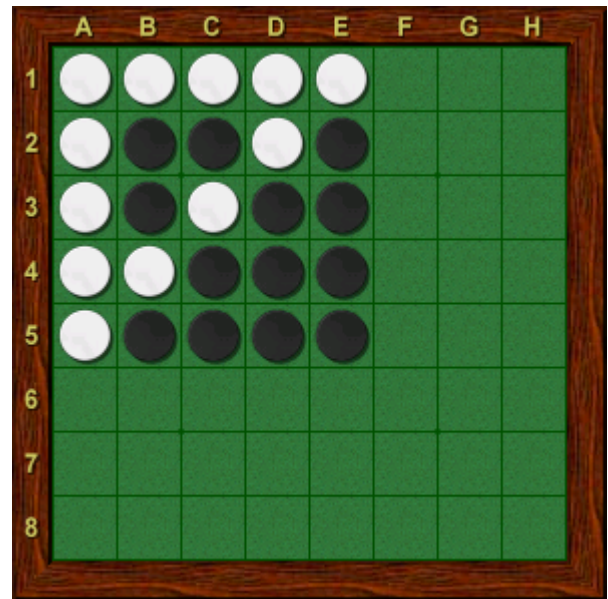

WHITE PLAYS H1

White wins 40-24!

A reasonable question at this point might be - Why are corners important? The simple answer is that a corner is a guaranteed stable disk because there are no moves that outflank a corner. A **stable disk** is a disk that your opponent can never flip back to his or her color. Obviously, the more disks you have that are guaranteed to be your color at the end of the game, the more likely you are to win the game. Another great thing about corners is that you can use them to build more stable disks. Let's take a look at another fantasy board to demonstrate how stable disks can be built from corners.
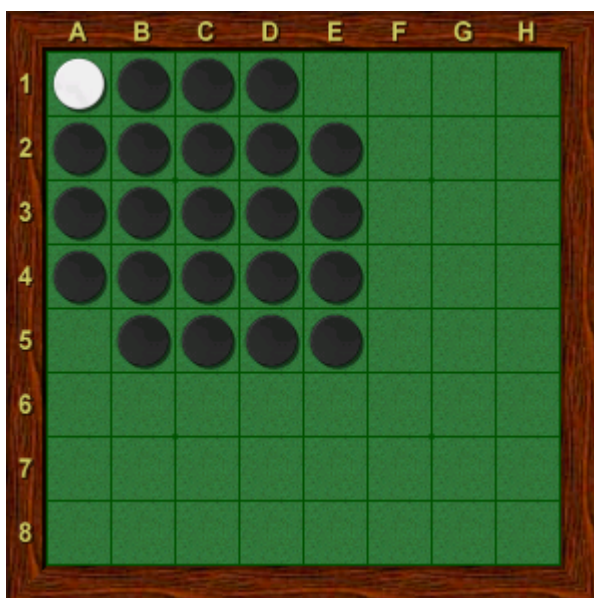
WHITE TO PLAY

Here, white can create stable disks along either the A column or the 1 row by building off of the A1 corner. An example of this is on the next page.
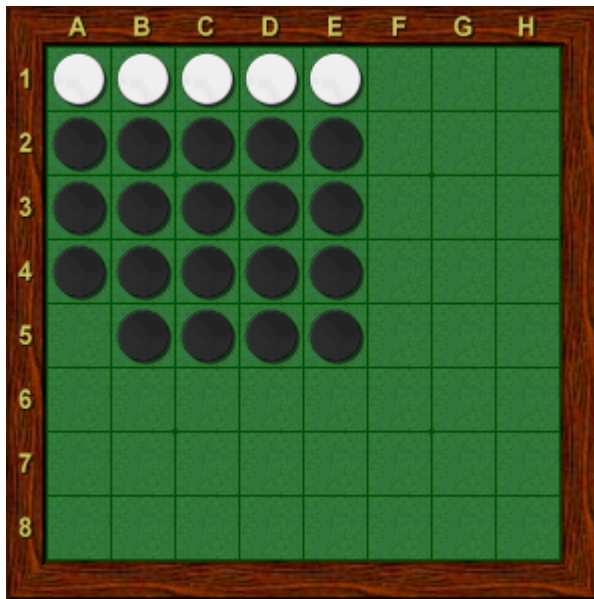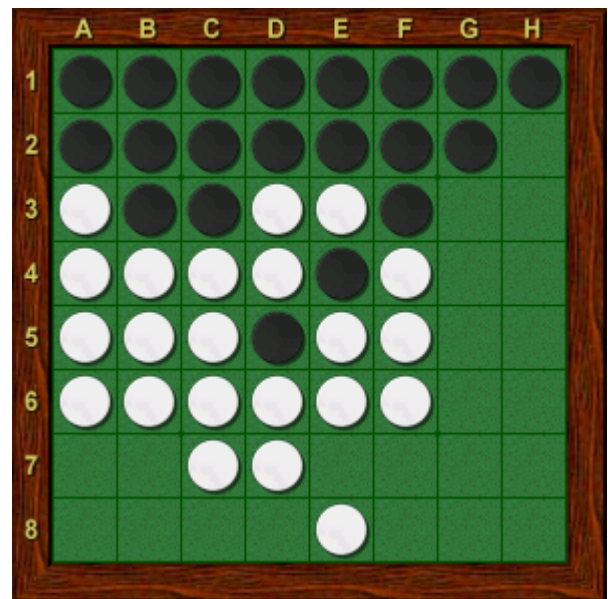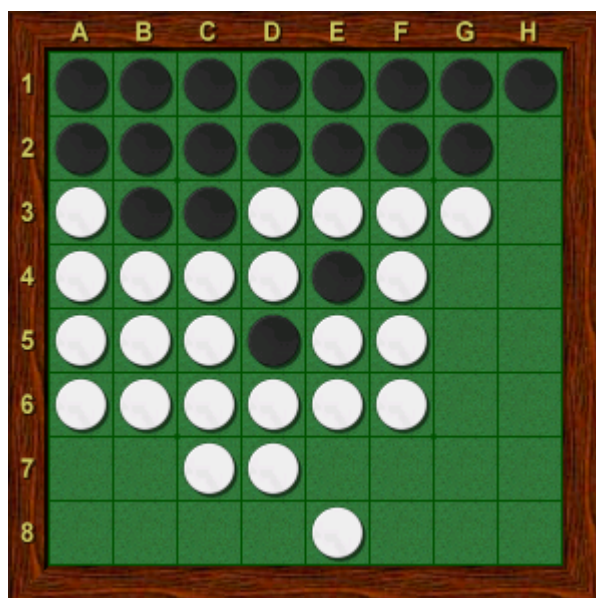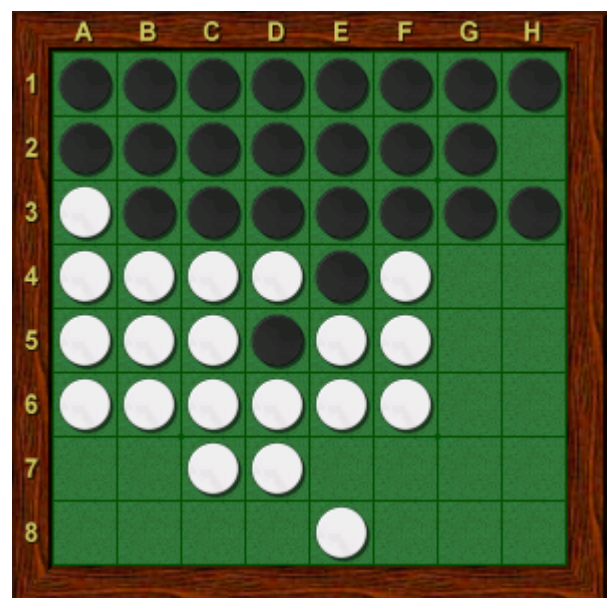
WHITE PLAYS E1

WHITE PLAYS A5

Note that the 9 white disks on the edge from A1-A5 and from A1-E1 are all stable – however, the white disks on B4, C3, and D2, while they can't be flipped in the current position, are not yet stable. For instance, if white were to play F2 then black could play G2 which would flip the D2 disk. While white is guaranteed a score of at least 9 at the end of the game, black has no stable disks at all. Let's take a look at an example illustrating how building off of corners will result in accumulating stable disks.
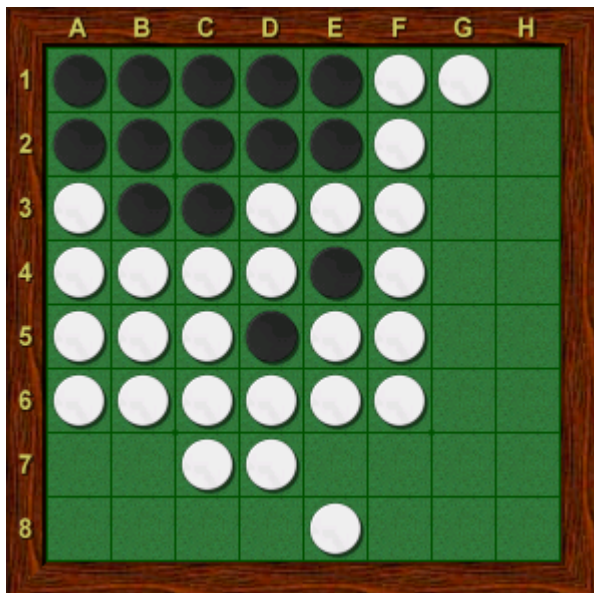

BLACK TO PLAY

Black can play either A7 or H1 and get more stable disks. Following the rule that corners are very valuable, we will build towards the corner at H1. White will then have to pass because white will have no legal moves.
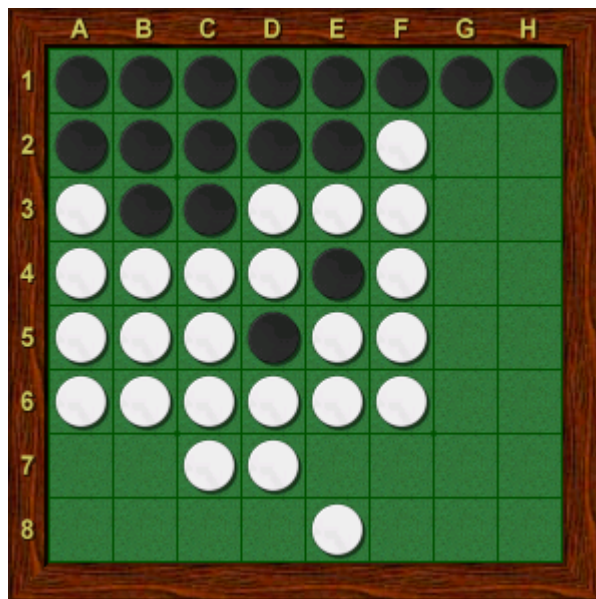
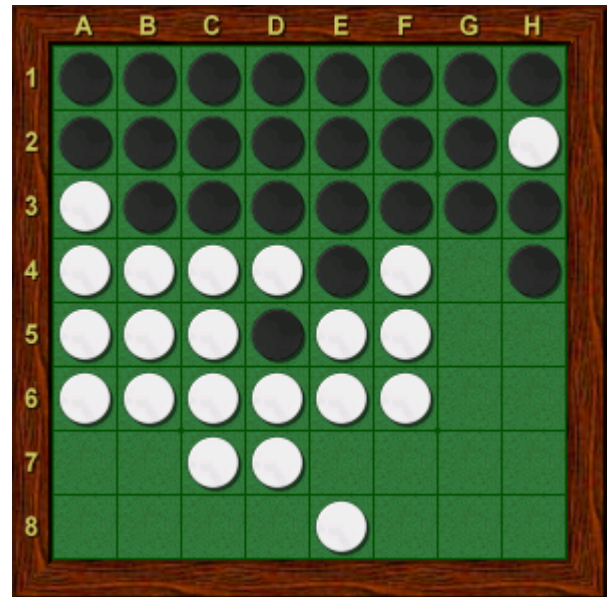**BLACK PLAYS H1 – WHITE PASSES**   **BLACK PLAYS G2**

Since we are building towards the H1 corner, we should try to consolidate the northeast region of the board and fill it in with black disks, in the meantime, we are going to save the move to A7 (because it won't go away) until later. We'll play G2 which forces white to play G3 because white has no other valid moves.

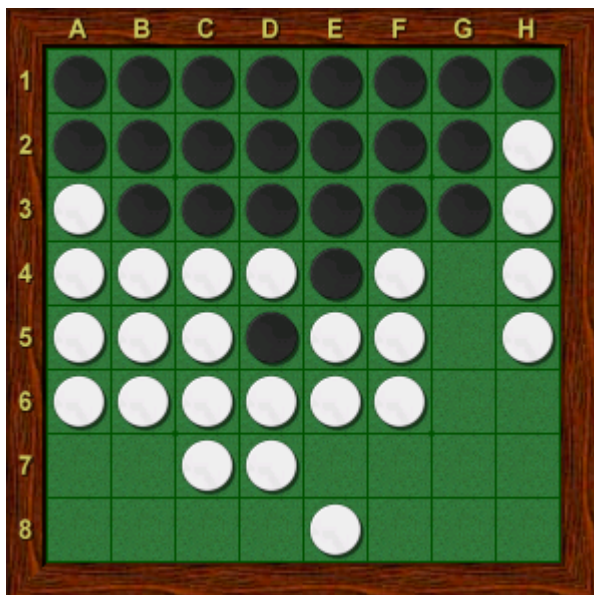**WHITE PLAYS G3**   **BLACK PLAYS H3**

After white plays G3, we'll play H3 because this gives us 3 more stable disks and helps consolidate even more of the northeast region to black. Again, we'll leave white a move here. Often, when you're building you'll need to leave moves for your opponent. Yes, white gets a disk at G3 and at H2 for the moment, however, look how quickly, those disks both turn into stable disks for black in that region. By forcing white to play there after black already has the corner to build off of, black can turn those disks into stable black disks.
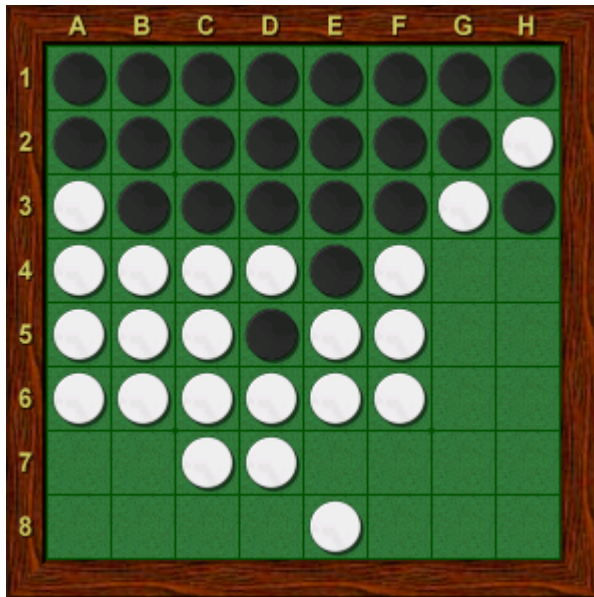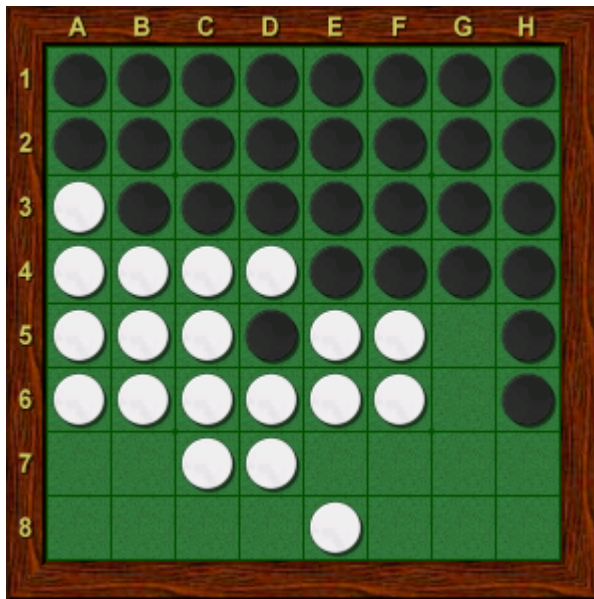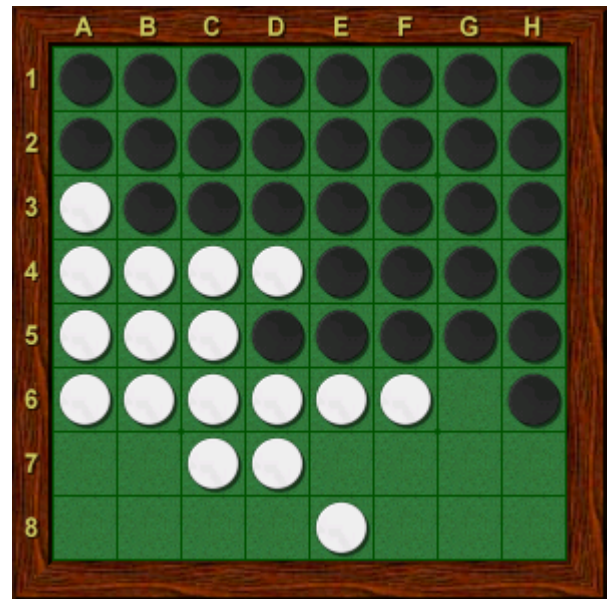
WHITE PLAYS H2

BLACK PLAYS H4

WHITE PLAYS H5
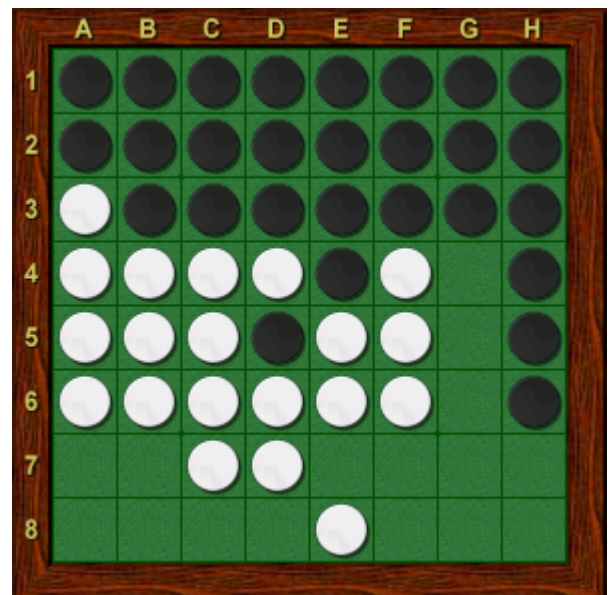
BLACK PLAYS H6

BLACK PLAYS G4

BLACK PLAYS G5

Let's stop here and assess the situation. Black already has 31 stable disks and has guaranteed that even if the 2 unstable black disks (D5 and E5) get flipped to white and white gets stable disks on the rest of the squares (very unlikely), black will still only lose the game 33-31. If black were a conservative player, black could play A7 next, which would give black 7 more stable disks and guarantee at least a 38-26 win. Unfortunately for white, black doesn't have to play A7 which "only" wins 58-6 with perfect endgame play. Instead, black can play F7 which leads to a perfect play win by wipeout for black. A *wipeout* is the term for when one player ends the game with zero disks left on the board. In this game the final score after perfect play is 62-0 for black. Here's a transcript that shows the perfect endgame from the original starting position:
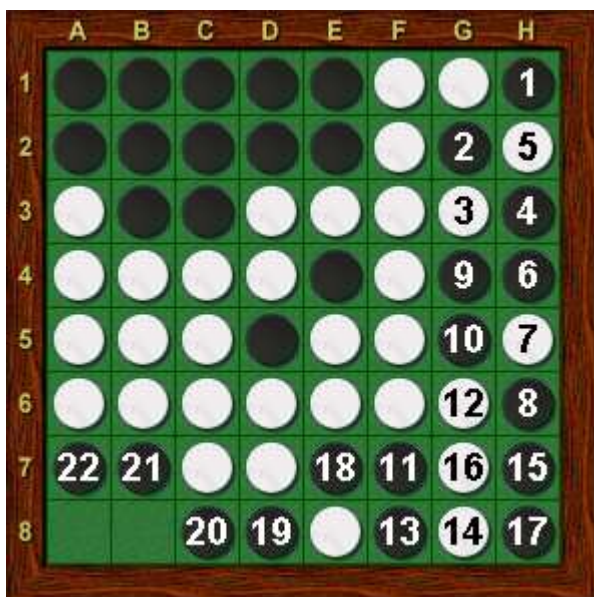

TRANSCRIPT OF WIPEOUT

Later in the book, I will refer to the process of winning a clearly won game as "a matter of technique". In the next few exercises I'm going to present you with the chance to win a few lopsided games to get a feel for how to do it for yourself.

Exercises: For each of the following positions, set them up on a board (real or computer) and play out a forcing sequence that leads to a wipeout win. Note that in many of these positions, there are several sequences that lead to a wipeout and I've only provided what I consider the simplest solution. If you find another way – good job!

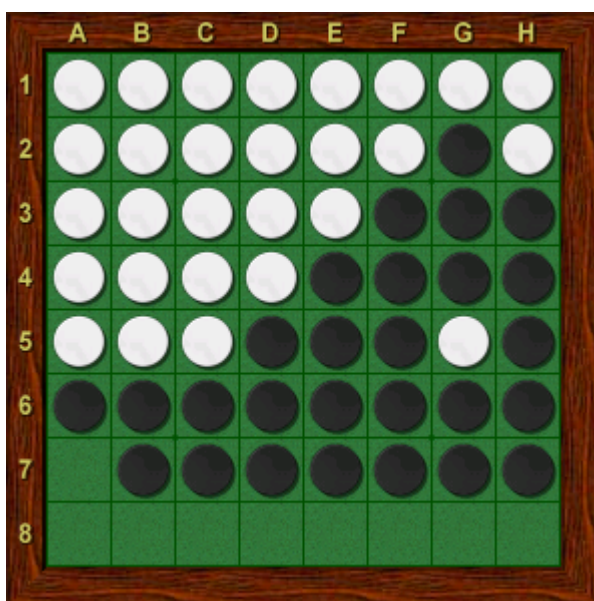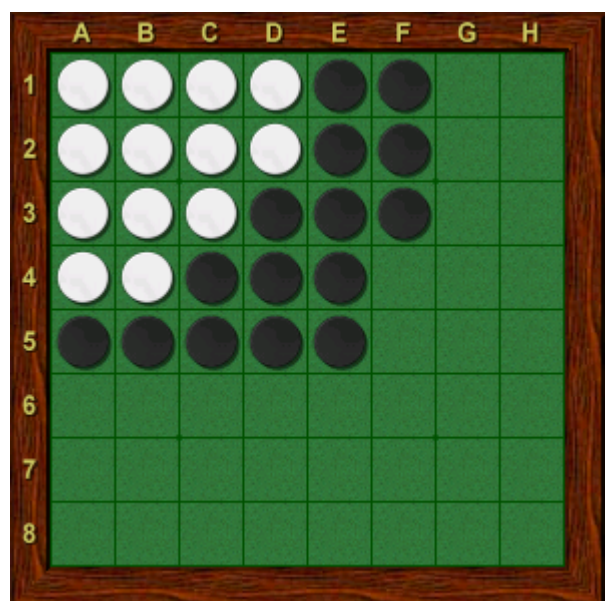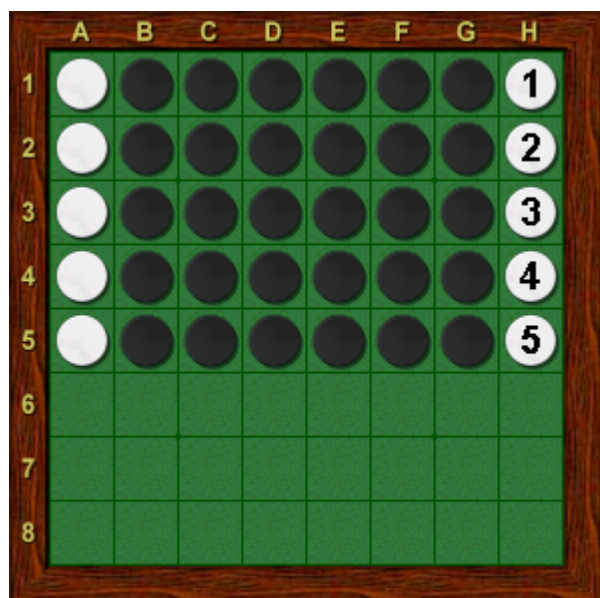**1.**
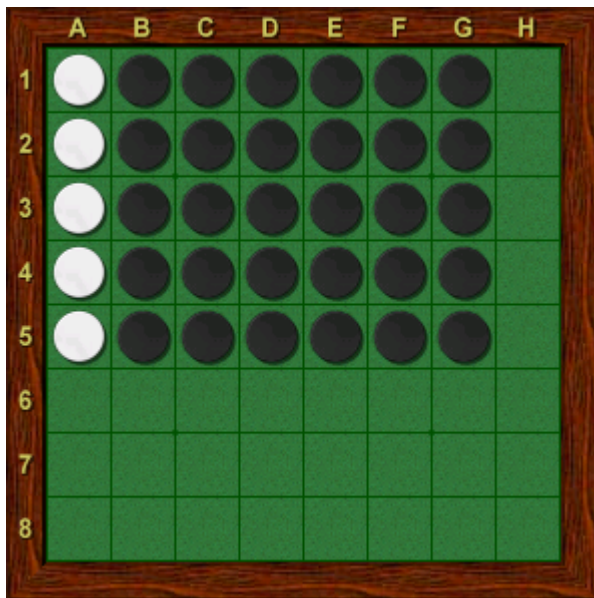
White To Play

2.

White To Play

3.

White To Play

4.
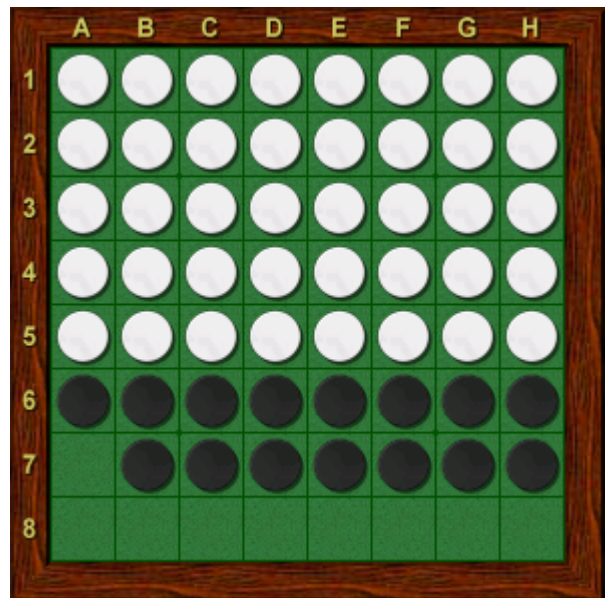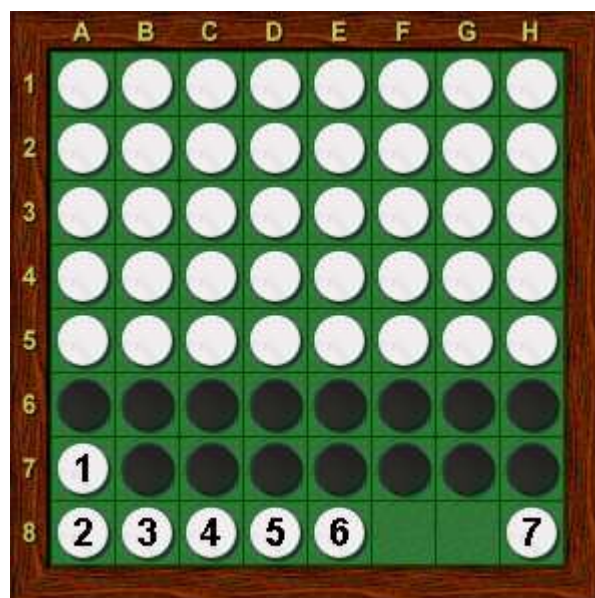

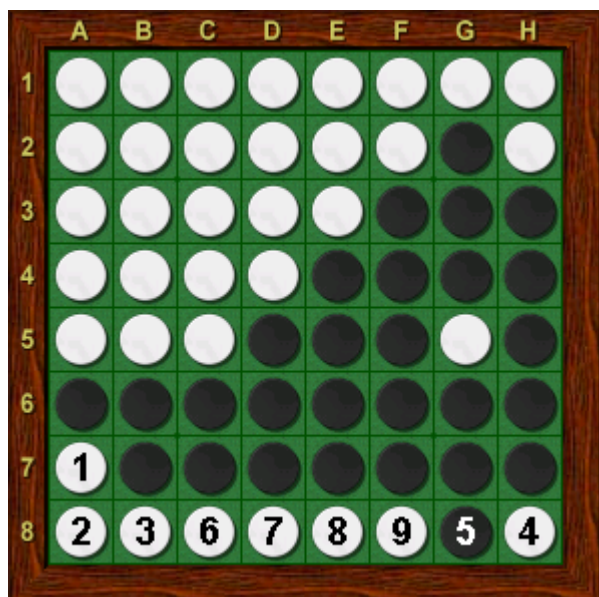**White To Play**
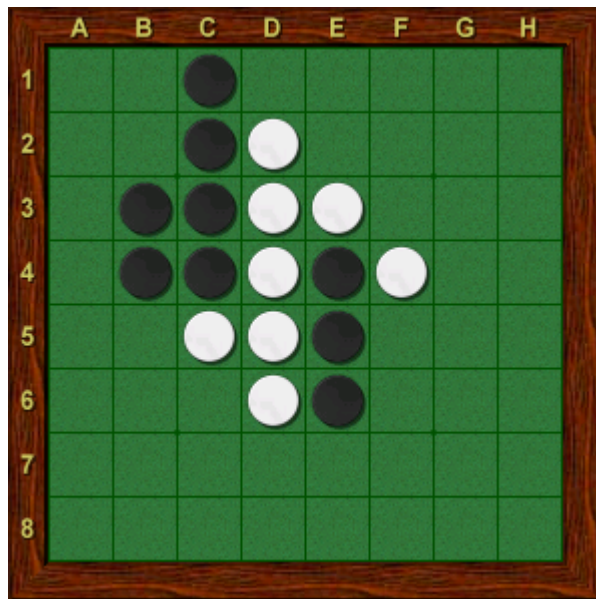
Answers:

1.

2.

3.

4.

A Few More Tips

While corners are good and building off of them is good, that only describes 4 squares on the board. What else can we learn about the relative values of squares?
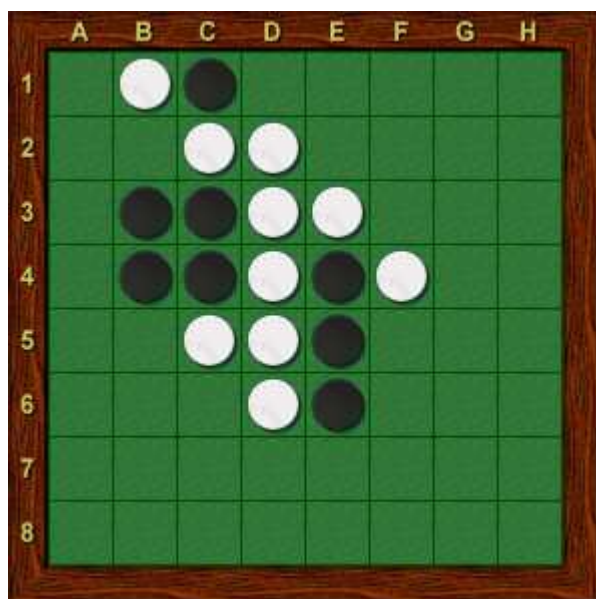
Exercise: Can you spot white's two worst moves in the following position?
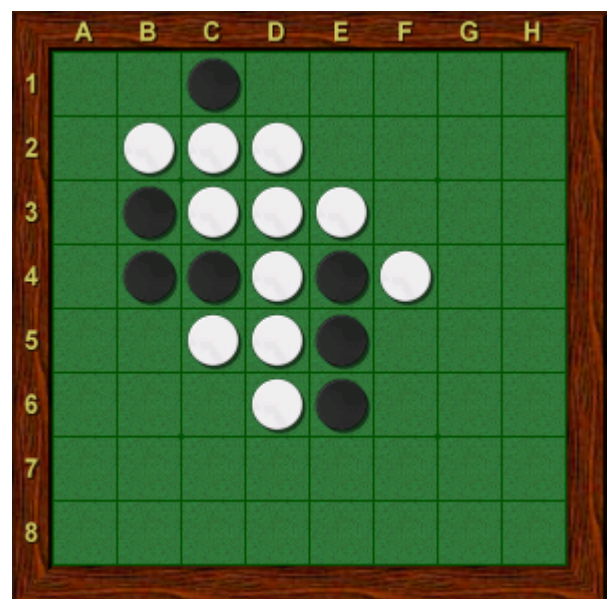

WHITE TO PLAY

Answer: B1 and B2 are white's worst two moves.

Why? Let's take a look at what the position would be after B1 and after B2:


AFTER B1

OR AFTER B2

In either case, black can now take the A1 corner! None of the other valid moves for white from the starting position give black a corner on the very next turn. The thing we can learn from this is that the squares adjacent to the corner are dangerous to play into. Othello terminology has special names for these squares: C-squares and X-squares.
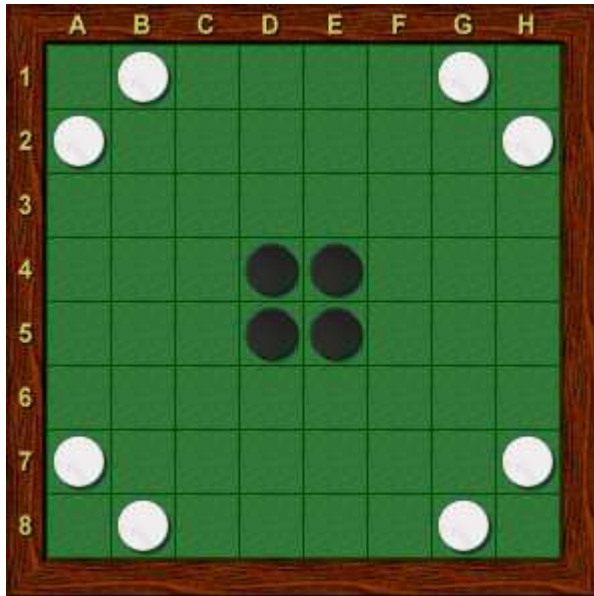
C-squares are adjacent to the corner on the edge.

In the diagram to the left, the white disks are the **C-squares** on the board.
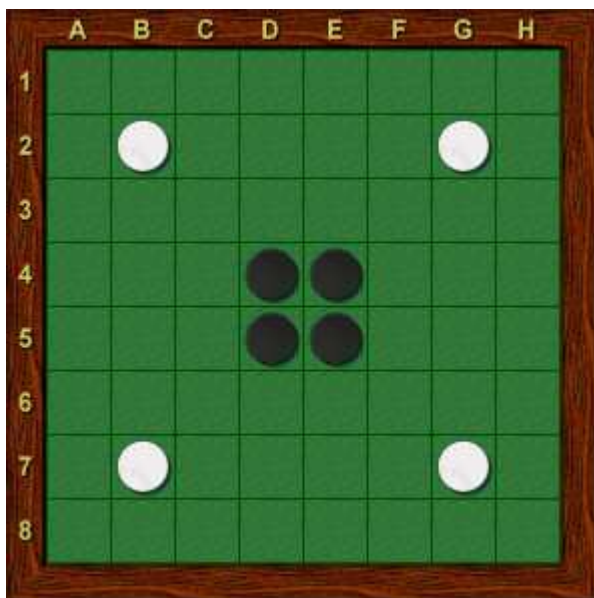
X-squares are the squares that are adjacent to the corner diagonally.

In the diagram to the left, the white squares are the **X-squares**.

Now that we have the correct vocabulary, we can summarize what we've learned so far: corners are good, while C-squares and X-squares are dangerous for us to play into because if we're not careful, our opponent will take a corner when we play into them. Even when there is no immediate threat of your opponent taking the corner, it's usually best to stay away from C-squares and X-squares. Let's take a look at a couple of examples:
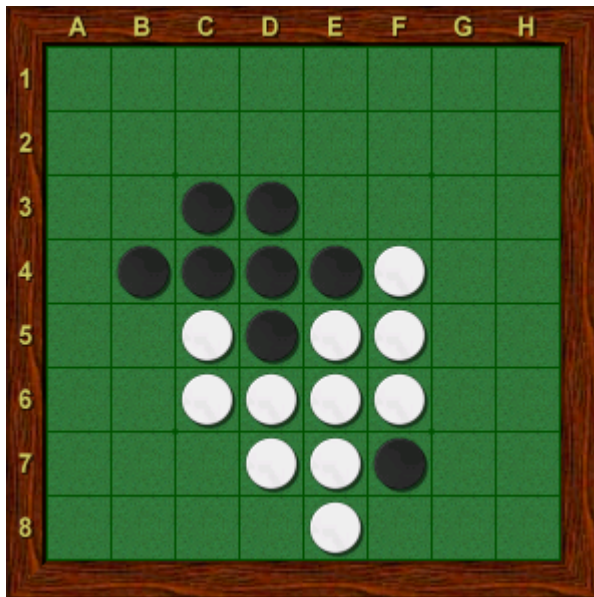
BEFORE WHITE PLAYS G8
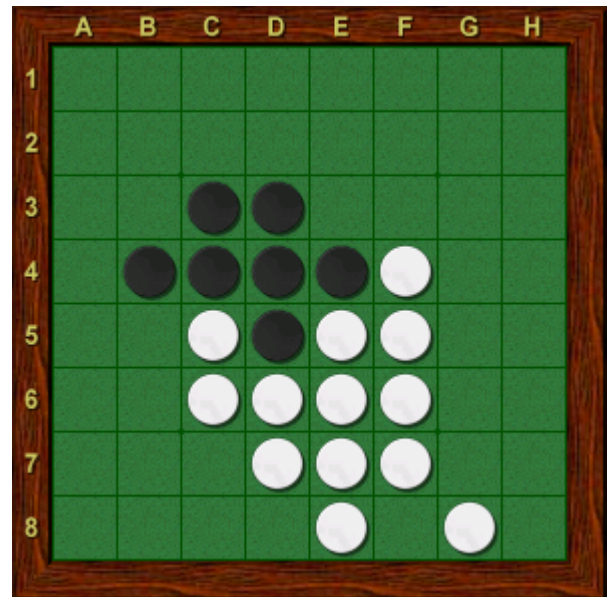
AFTER WHITE PLAYS G8

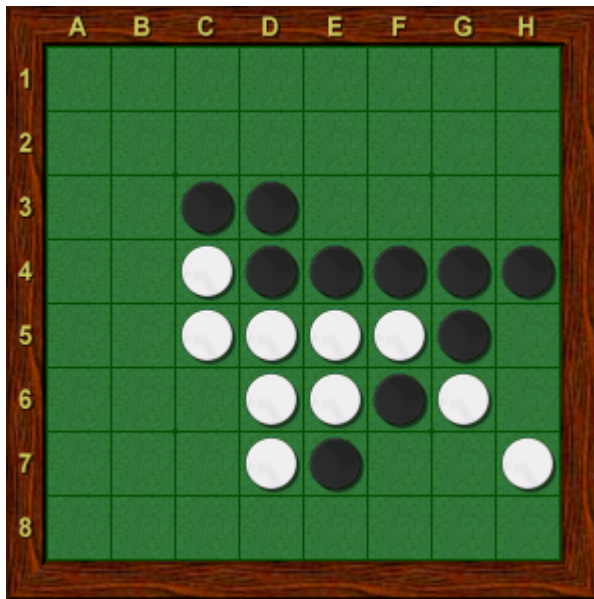If white were to play G8, as diagrammed, black can't immediately take the corner. However, at any move after this, black can choose to play F8 and after that black will be able to take the H8 corner on his or her next move.
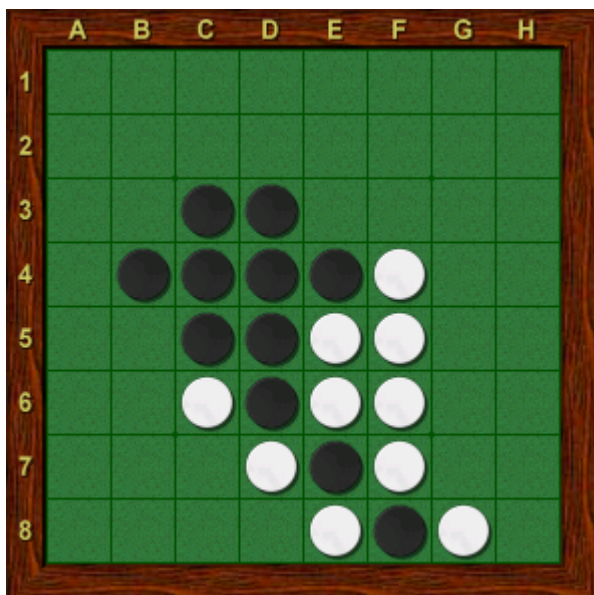
BLACK PLAYS F8 AND WINS THE H8 CORNER

WHITE PLAYS H7
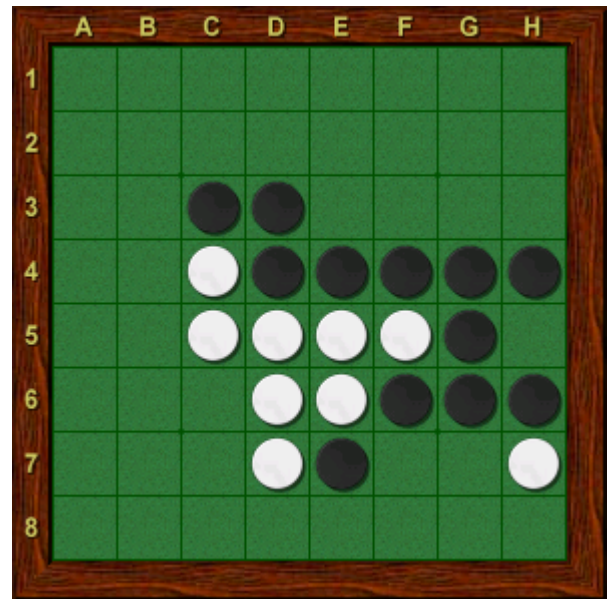
BLACK PLAYS H6

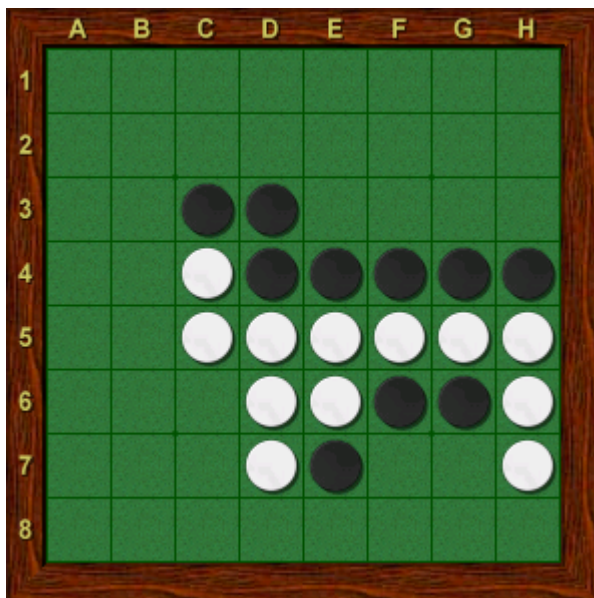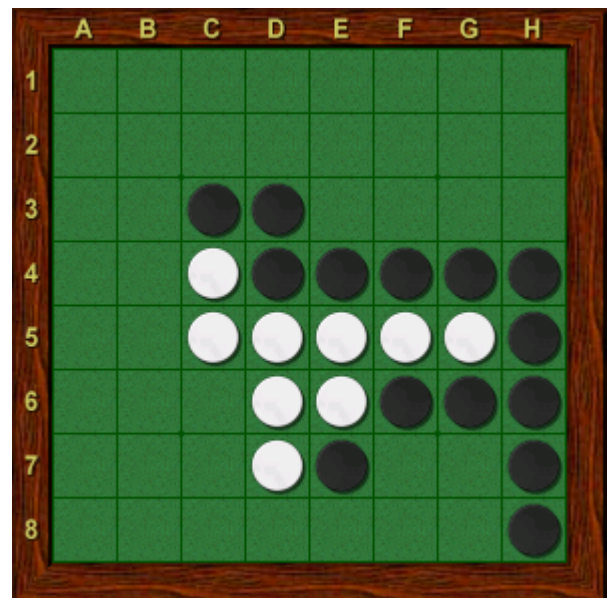In the above diagram, white has just played H7. After black plays H6, black is guaranteed to win the H8 corner. If white doesn't take the disk at H6 by playing H5, black takes the corner. If white does take the disk at H6 by playing H5, black will still have a disk at H4 and black can take the H8 corner on the next turn.

WHITE PLAYS H5

BLACK PLAYS H8

This is not to say that all C-squares are bad. In both the above examples, notice how the C-squares that were played aren't adjacent to any other white edge disks. C-squares tend to be bad when they are isolated. They aren't as bad when you have disks adjacent to them on the edge.

For example: In the following diagram, the C-squares at B1 and G1 aren't a liability for black because there isn't a way for white to attack them. In fact, as we'll discuss later on, edges where you have 6 disks (B1 through G1 in this case) are one of the best edge formations you can have.
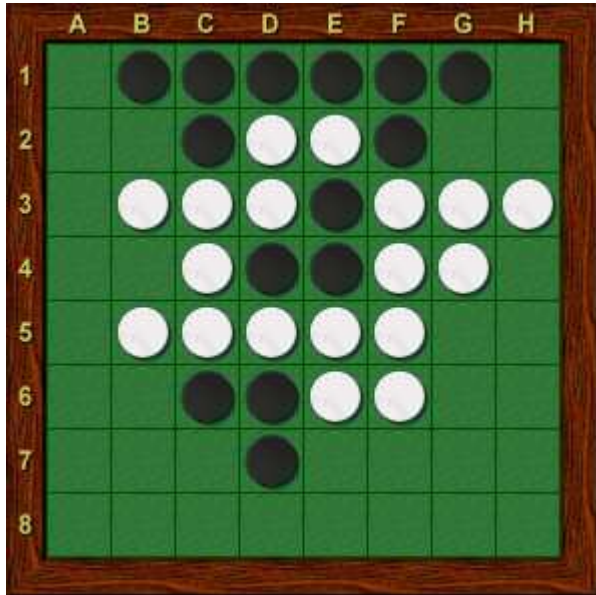
By not giving up corners (and avoiding playing into C-squares and X-squares which may result in losing a corner) , taking corners – when they're available, and building off of the corners that you do get, you'll beat almost every complete beginner that you meet.

Try playing a few games now and getting a better feel for how to apply these simple rules. You should be able to hold your own with other beginners; however, you will find many players who have advanced beyond this level. Don't be discouraged by this, it isn't completely unexpected. After all, I've only talked about one basic rule of the game, and what you do when there aren't any corner moves available has to have some impact on the result of the game, right?

More Othello Concepts

Greed is One of the Seven Deadly Sins

In the last section, I talked about the importance of corners. Obviously, corners aren't available at the beginning of the game. What you really want to know next is: what other rules can I follow during the rest of the game so that I have a chance at beating more than just beginners? If you followed my advice and played a few games with some beginning and intermediate players, you may have started to notice a pattern.

Let's take a look at a sample position:
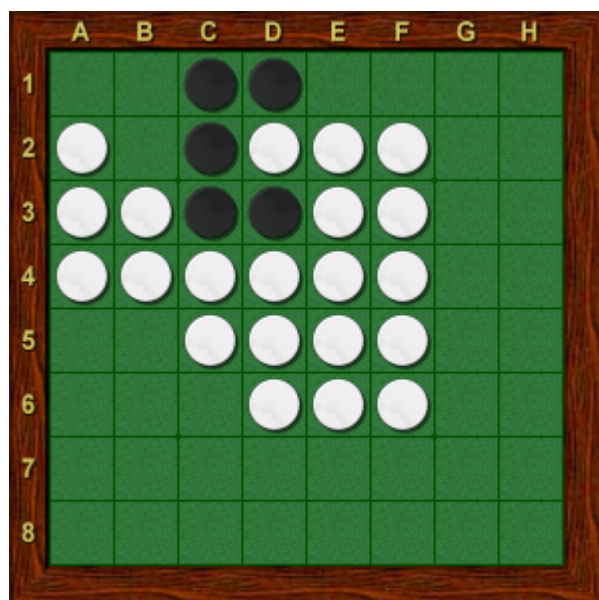
BLACK TO PLAY

What assets does white have in the above position? He's got a lot of pieces, certainly. To the untrained eye, it might even look like white is way ahead (after all, white has more pieces!). But if you look more closely, while it's black's turn to move, white only has 2 legal moves in the above position. And what's worse BOTH of those moves will let black have the corner shortly afterwards. From the last section, we know that that has to be bad news for white. Luckily for white – black has to play a move here. Black has lots of choices, from the absolutely horrendous G2 (giving up a corner) to B5 to E1. If black were to play B5 here, white would then play A5 or B6 (as the other 3 legal moves in the position would give away a corner).
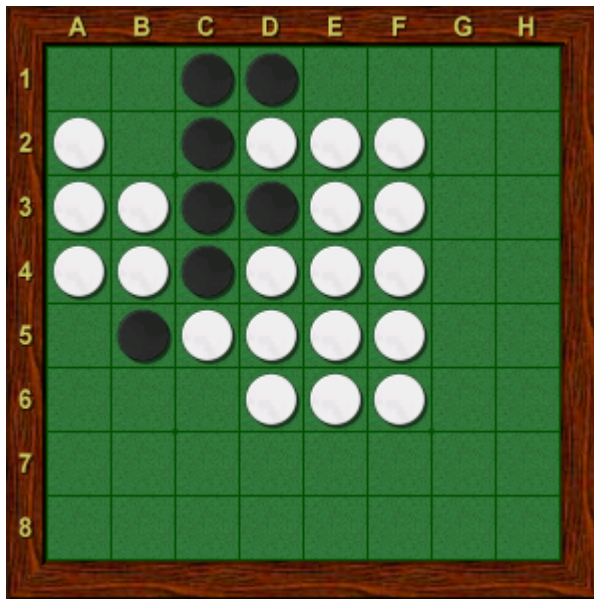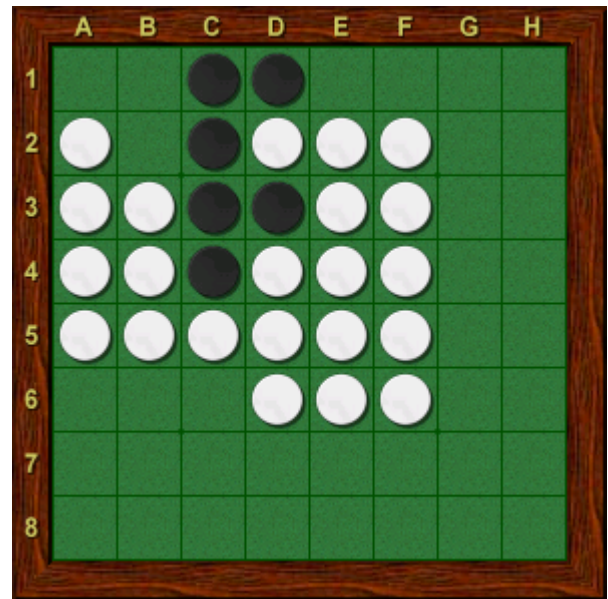
BLACK PLAYS B5   **WHITE PLAYS A5**

That hasn't made any progress for black and it is black's turn to move again. What if black played A5 here instead? White would respond A6 (because black would then be threatening to take the corner by playing along the A edge if white were to play B5).
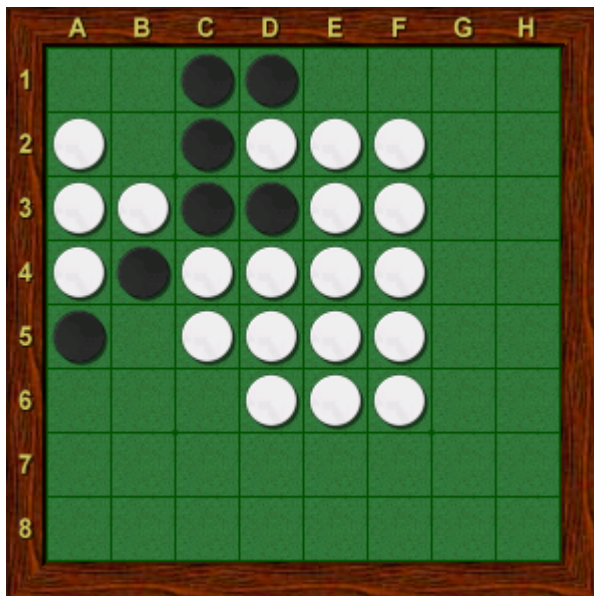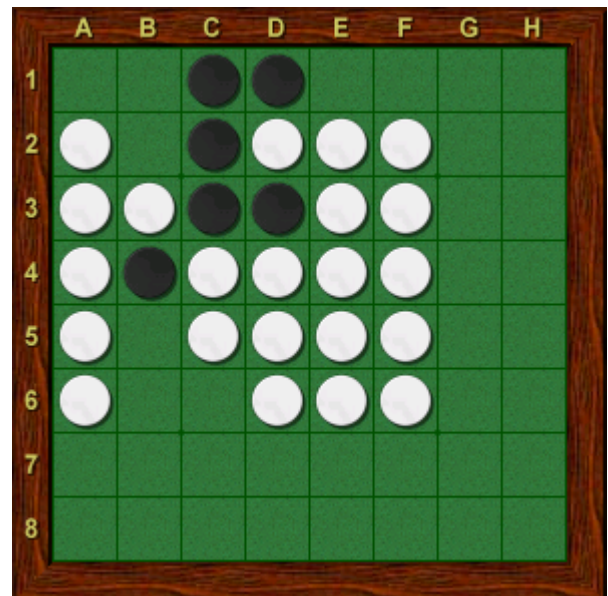
BLACK PLAYS A5   **WHITE PLAYS A6**

This also doesn't accomplish much. Unfortunately for white, black has a much better move here, E1. After E1, white STILL has the same 2 moves that lose the corner.
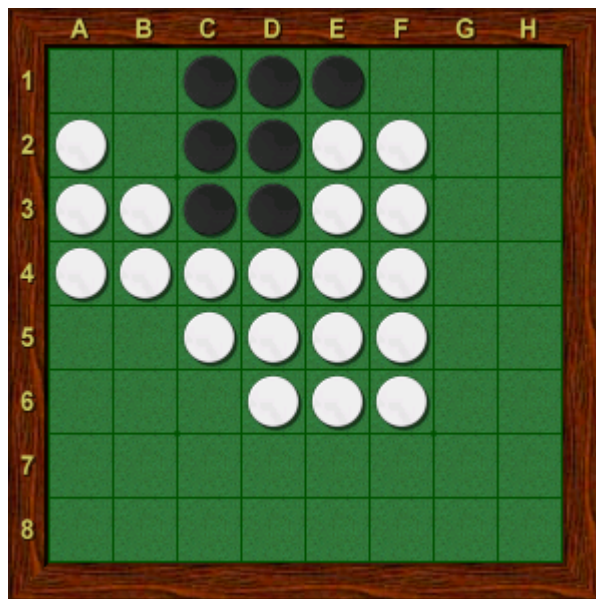
BLACK PLAYS E1

I like to call moves like E1 the ***killer move*** because after this the game is effectively over and it turns into a process of getting the corner in the best way and building from there. Similarly, there are often sequences of 2 or more moves that win immediately and I call those ***killer sequences***.

In Othello terminology, a ***quiet move*** is a move that doesn't disturb the position very much. On the other hand, a ***loud move*** is a move that changes the position significantly. In fact, in the above example E1 is a ***Perfectly Quiet Move*** because it flips exactly 1 disk and it provides no new moves to the opponent (therefore it's as quiet as any legal move in Othello can be – it doesn't change the board very much at all). To clarify a bit more, your opponent will have the same (or fewer) moves both before and after you play a **Perfectly Quiet Move**. In the above example, before black plays E1, white can play to B1 and B2. After black plays to E1, white STILL can only play to B1 and B2. As a general rule, if there is a perfectly quiet move on the board it is almost always the right move to play.

What can we learn from the above position? With good play, you can force your opponent to give you corners – even if they've discovered how valuable corners are and they are also avoiding playing into X-squares and C-squares. The real question is: how do you get into positions where your opponent will have to give you a corner?

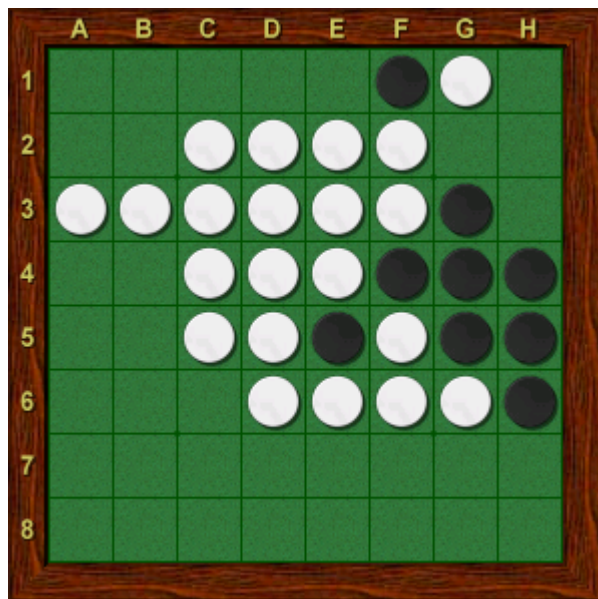Let's take a look at another example:
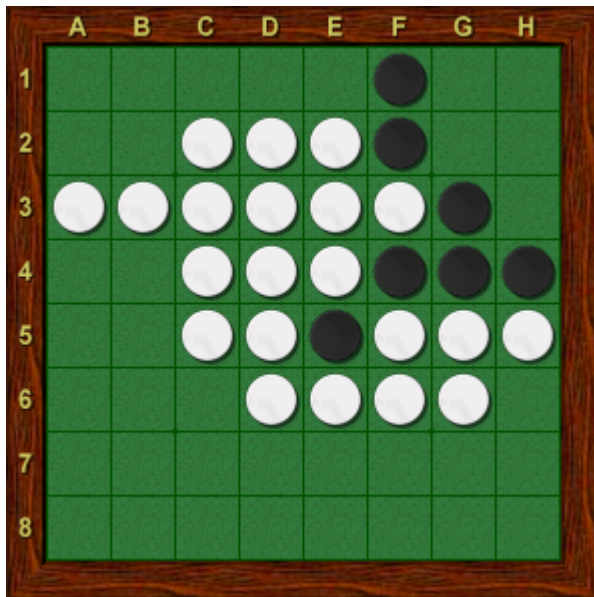
BLACK TO PLAY

Black can play the perfectly quiet move to H6 after which white can respond by playing 4 ways: H2, H3, G2, G1.
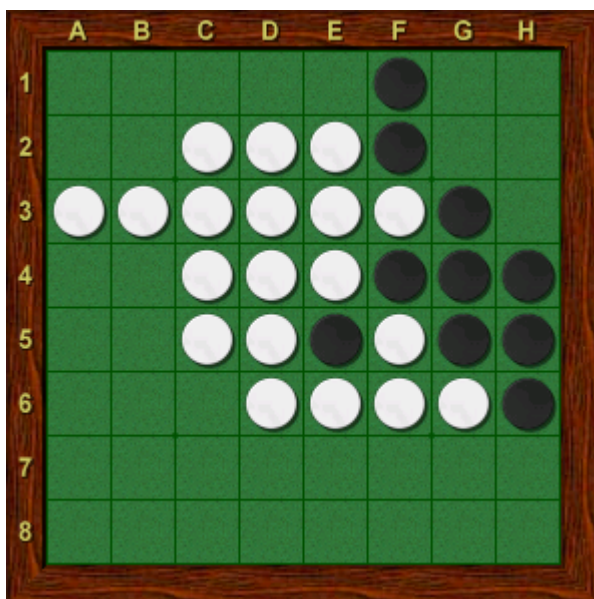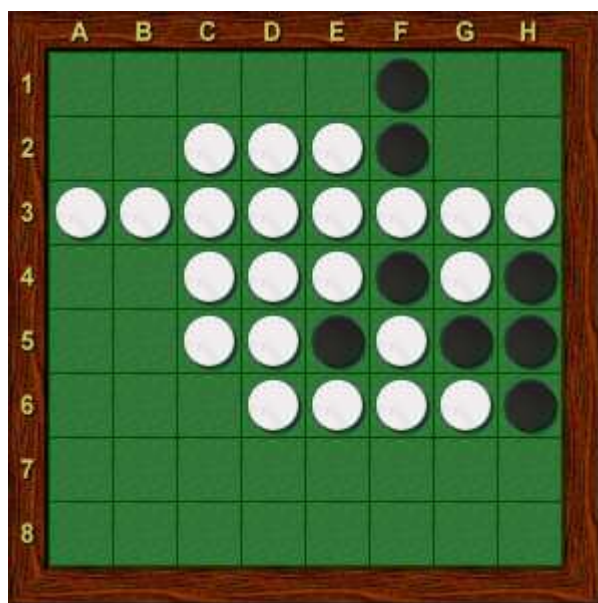

BLACK PLAYS H6

We can be pretty sure that white isn't going to play G1 as that immediately gives black a corner.

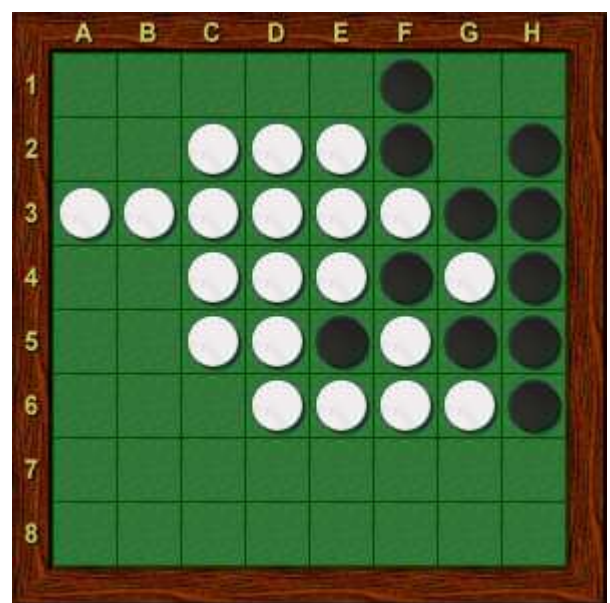**IF WHITE PLAYED G1**

H3 might appear good, but after H3 black can play H2 and white will be forced to play G2 or G1 – both of which lose the corner.
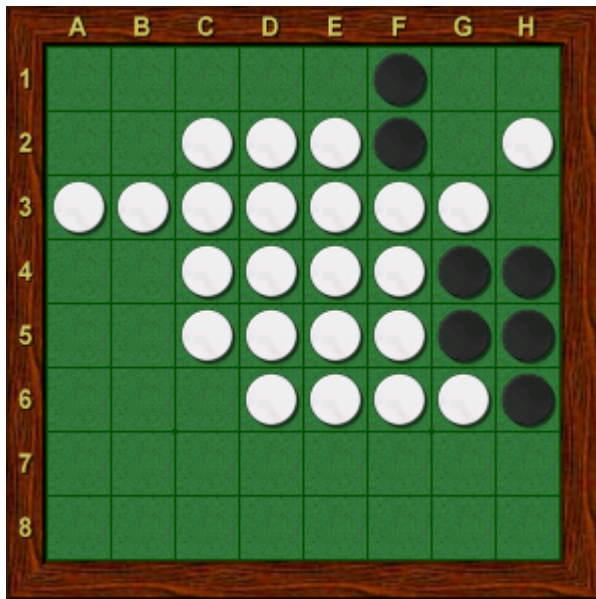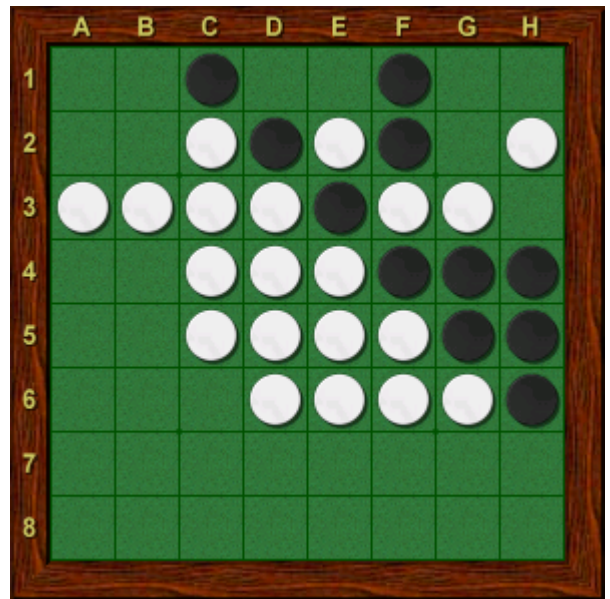

IF WHITE PLAYS H3

BLACK PLAYS H2

G2 isn't much better than H3. In fact the only way that white can try to hold on is to play H2, a dangerous (but necessary) C-square. After black plays C1 in response, white will have to play E1 or D1.

IF WHITE PLAYS H2

BLACK PLAYS E1

White only has these 2 moves that don't give up the corner – both are on the north edge. No matter which of these moves to the north edge that white plays next, black will play the other. If white plays D1, black will play E1, and vice versa, we call such moves *paired* – when the obvious response to a move is another move and vice versa. After the move pair is played out, white will be forced to give up the H1 corner on his next turn.
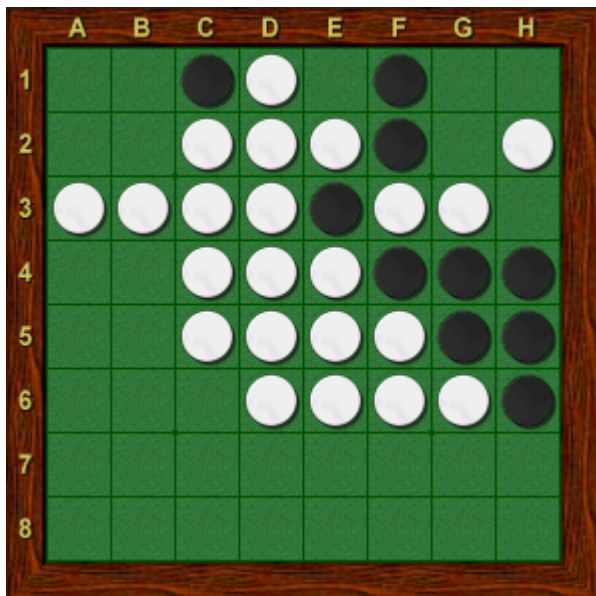
IF WHITE PLAYS D1
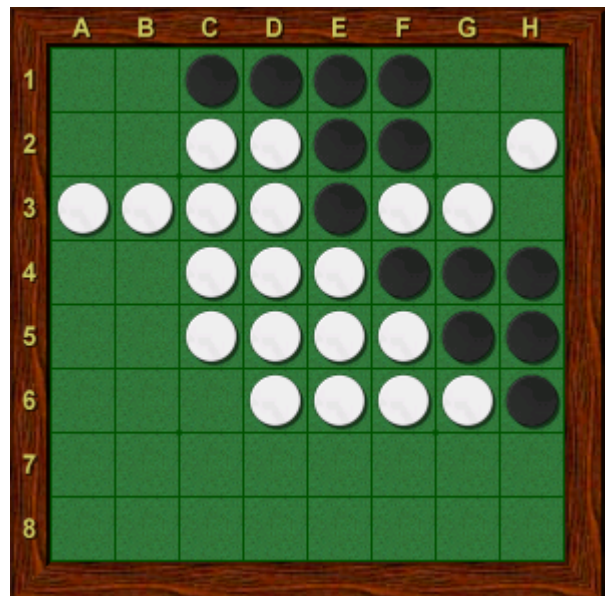
BLACK PLAYS E1
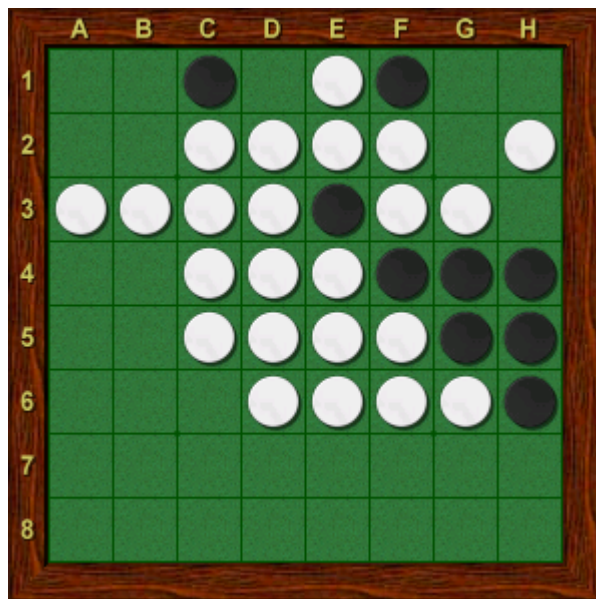
IF WHITE PLAYS E1

BLACK PLAYS D1

So if it's black's turn, white will lose. What about if it's white's turn? White could play H3 ,making a black move to H6 pointless (White just plays H7 after H6), however then black will just play E1 instead, forcing white to play D1 and then black will play C1 forcing white to lose a corner.

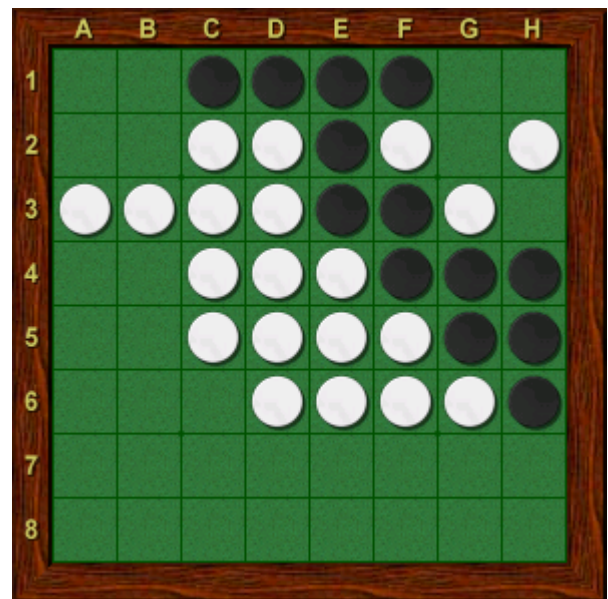Obviously, whatever it is about the previous starting positions that is bad, it carries over no matter whose turn it is. In order to figure out how to force our opponents to give us corners, we need to figure out what features the two diagrammed positions have in common. White's real problem in both positions is that he doesn't really have a lot of options to begin with and the options that he has aren't very good. When you have lots of moves to choose from you are said to "have lots of **mobility**". When you don't have many moves to choose from you are "low on **mobility**". Having good *mobility* (having good moves) is a very important part of the game. If you have a lot of mobility – at least a few of those moves are bound to be good. And the opposite is true, if you don't have very many moves – you might not have any good moves at all.

Many games between an expert and a beginner are decided in terms of mobility alone. The expert quickly runs the beginner out of good moves, and then forces the beginner to give up a corner (by leaving the beginner one or two moves that both lose a corner) and from there it's all a matter of technique.

Why doesn't white have much mobility in the above diagrams? Because black doesn't have a lot of disks., Obviously if black only has 3 or 4 disks, white will probably have only 2 or 3 moves. If those 2 or 3 moves are all moves that give away a corner, then black is probably going to win. The point I'm trying to make here is that by having fewer disks, you can get into positions where your opponent is forced to give you a corner. Having fewer disks is actually better most of the time!

Unfortunately, this can be a very difficult lesson to learn. The "goal" of the game is to get the most disks, right? Wrong. The goal of the game is to have the most disks **at the end** of the game. We've already seen how having corners leads to stable disks and we know that stable disks lead to more disks **at the end** of the game. In between the start and the end of the game, our goal is to put ourselves into a position where we're likely to have the most disks **at the end** of the game. If this means having fewer disks in the opening and midgame, then so be it.

Exercises: Now that we've seen a little bit about how we can force our opponents to give us a corner – these exercises will help us find the *killer moves* that are necessary to get the job done. Find a move or short sequence that forces your opponent to give you a corner. Note that in most of these positions there are multiple answers. I've picked the shortest killer sequence as the answers. If you found another forced sequence, good job!
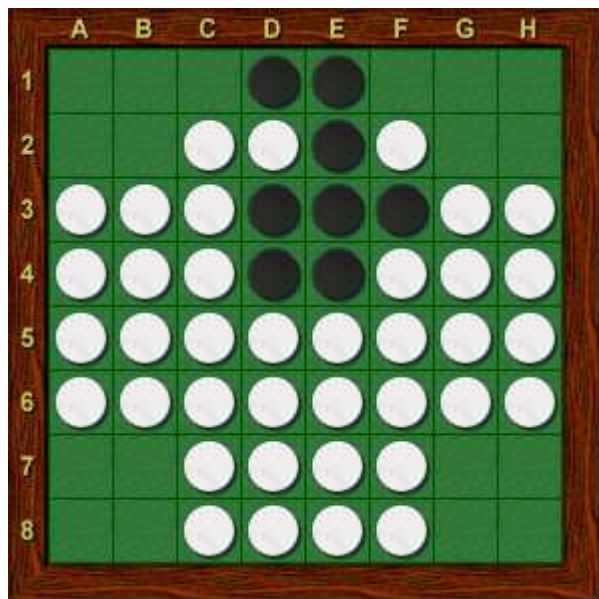
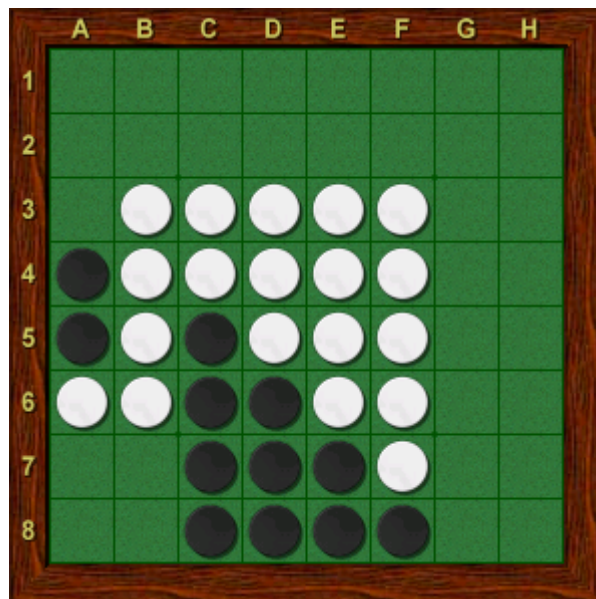play on the edge + force opponent to have no move or x-square

feed the corner => leave white to have NO MOVE 2 TIMES IN A ROW!!!

play first in a even region => white only have moves in that region => lose corner

1.

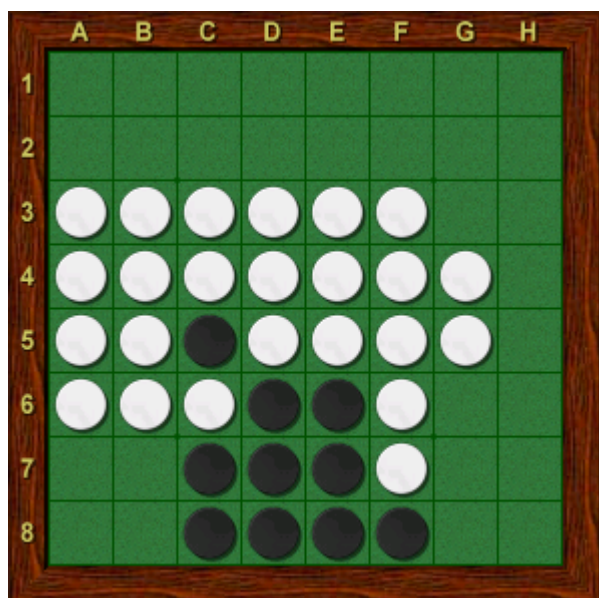
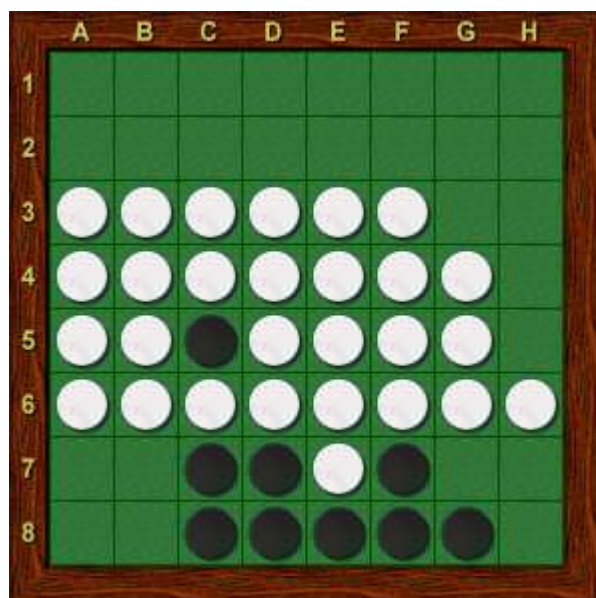**Black To Play**

2.

Black To Play

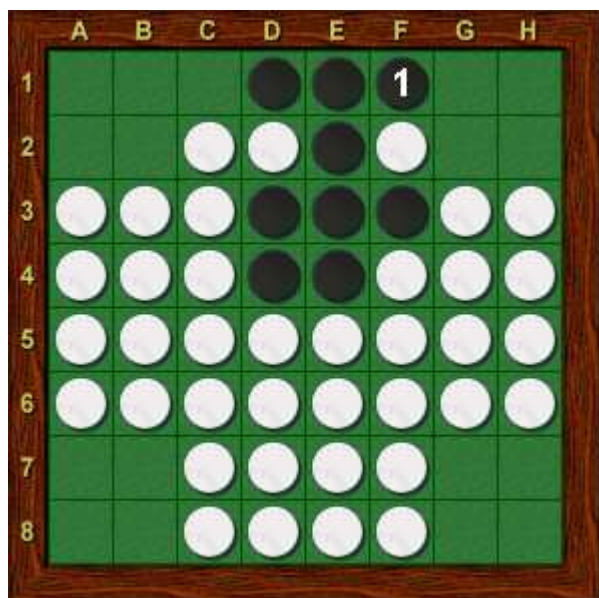**3.**

Black To Play

4.

Black To Play

same idea; white only has moves on the bottom left => make a quite move and wait

Answers:
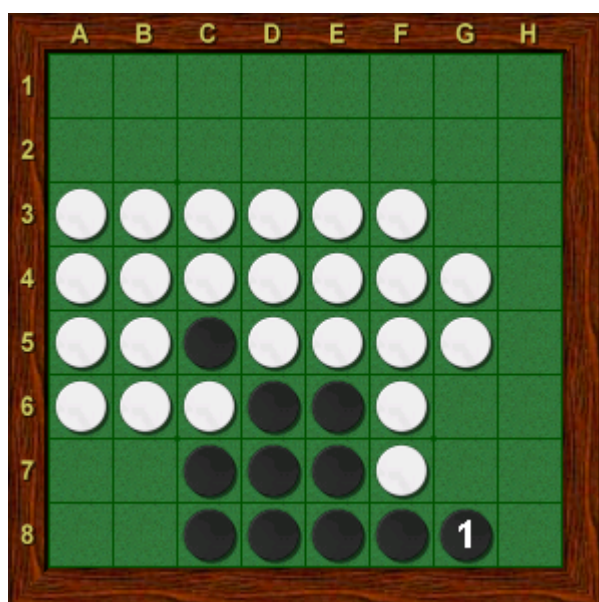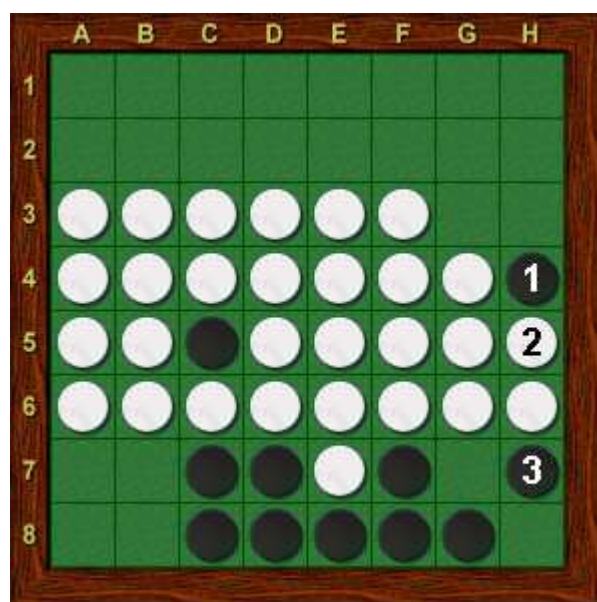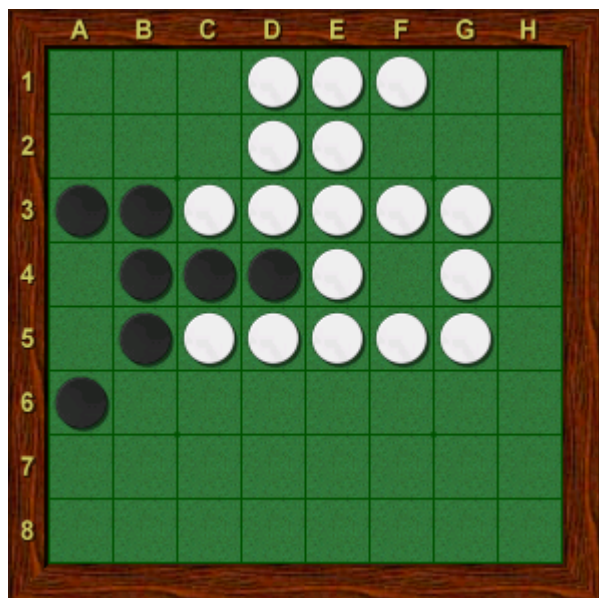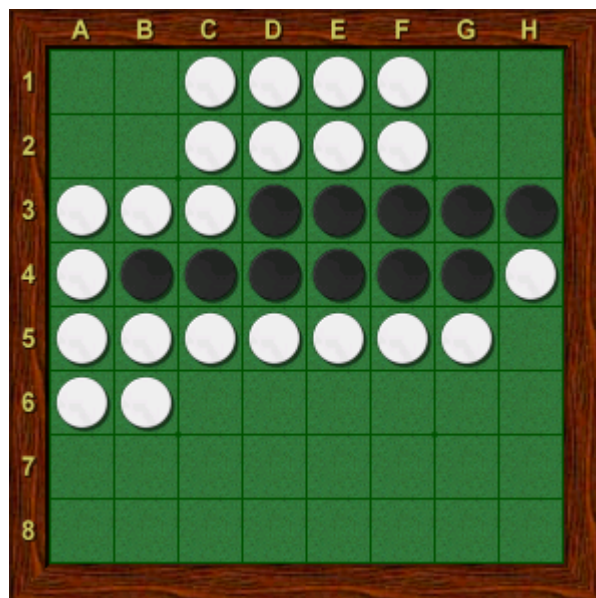
1.

2.
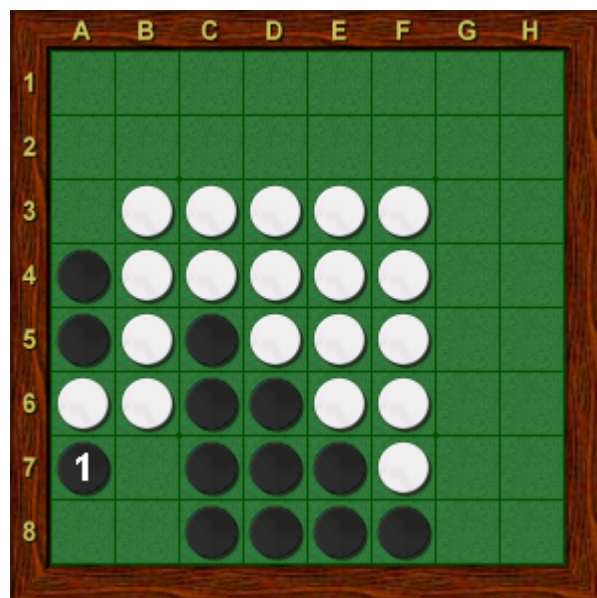
3.

4.

Exercises: Find the Perfectly Quiet Move in each of the following positions:
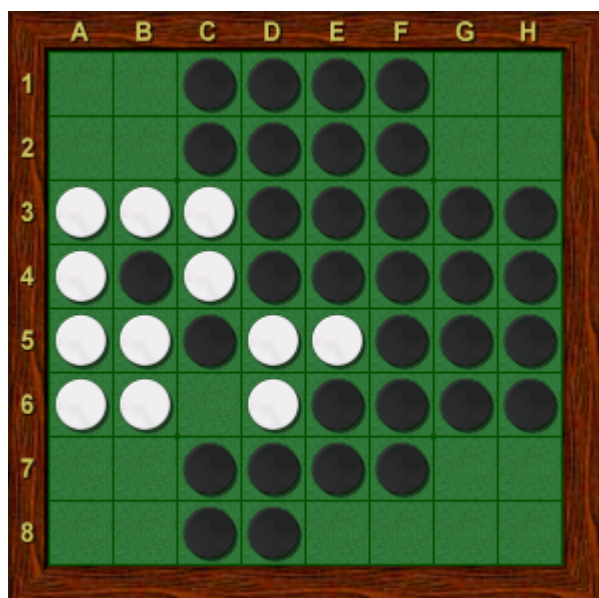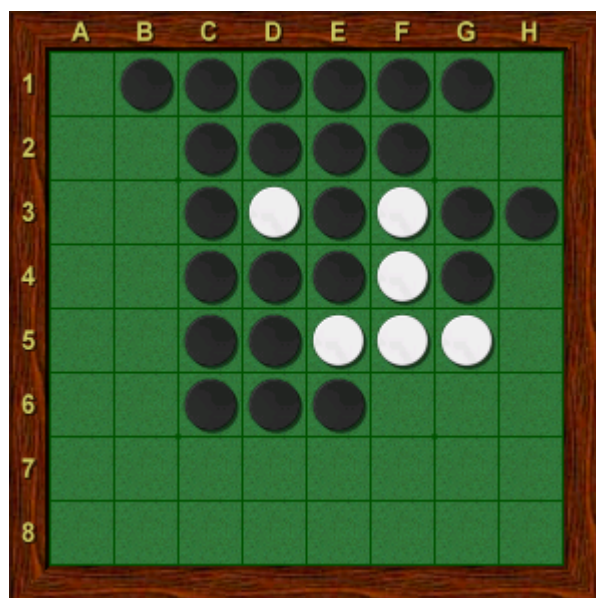
1.

BLACK TO PLAY

2.

BLACK TO PLAY

3.

BLACK OR WHITE TO PLAY

4.

WHITE TO PLAY

Answers:

1. F4
2. H5
3. C6 is a *Perfectly Quiet Move* for BOTH players
4. H4

Don't leave yourself high and dry

Let's say that your opponent is trying to maximize their disks. At some point in the game, you're likely to get wiped out if you completely commit yourself to minimizing your disks. The term for this situation is *overevaporation*. Unfortunately, you can't always focus on just minimizing your disks,you sometimes have to pay attention to make sure that you're not going to wipe out. Remember having fewer disks is a means to forcing your opponent to give you corners, it is not an end in and of itself.

In order to avoid being wiped out by someone who is playing greedily, you'll want to try to play moves that do 1 of 3 things (in this order of importance):

- Establish a stronghold on an edge that your opponent can't flip
- Play a move that flips disks in more than one direction at once
- Play a move that makes a line that is not immediately reflippable.

Let's take a look at examples of each of these in turn.

Establish a stronghold on an edge that your opponent can't flip

Edge disks are harder to flip than regular disks as they can only be flipped by other disks on the edge, instead of in 8 different ways like all the other disks. By establishing a stronghold on the edge and not letting your opponent flip those disks, you guarantee yourself that you'll have some disks to play off of later in the game.
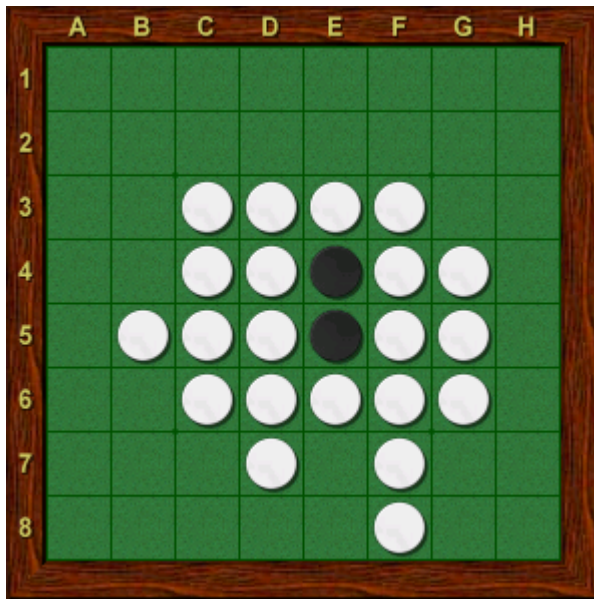
BLACK TO PLAY
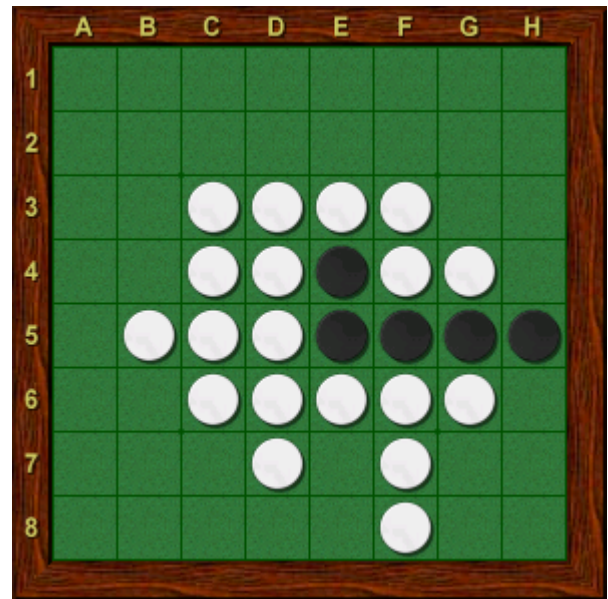
BLACK PLAYS H5

In the above example, black could play moves like E7 or E2 that immediately get wiped out. For instance, if black played E7 white would play E8. In order to avoid being wiped out, black can try to establish a stronghold on an edge that White will never be able to flip. For instance, if black were to play H5, then white can never take black off of the edge because no matter where white plays along the edge, black can just capture along the edge and protect his stronghold.
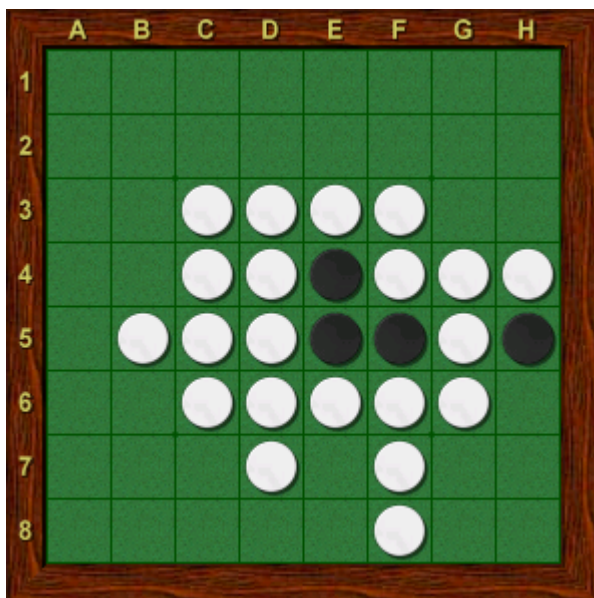
WHITE PLAYS H4
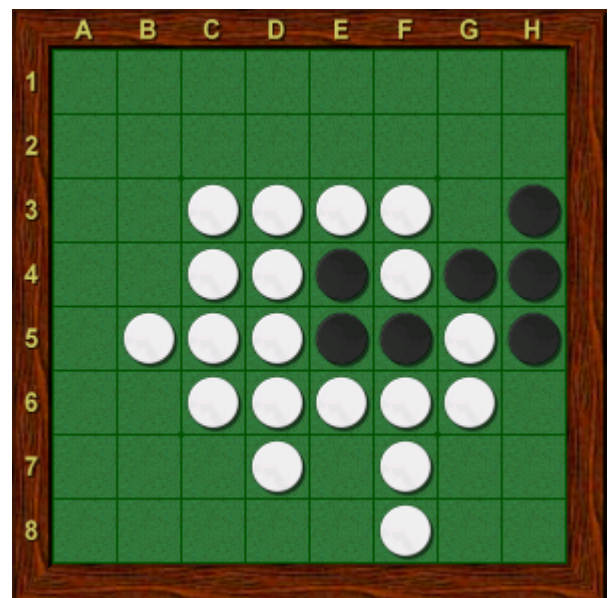
BLACK PLAYS H3

For instance, if white tries to get on the edge with H4, black will just take the edge with H3. As long as white can't take black's edge disks, black can't be wiped out. Notice that in the original diagram black had several other possible edge moves (A5, H4, H7), however, H5 is the quietest move and it leaves white with the fewest options (in fact , it's an easy win for black), and that makes H5 the correct choice.

Flip in more than one direction at once

If you are dangerously low on disks, flipping more disks will help you avoid being wiped out. That is one of the reasons that flipping in more than one direction at once is good. You tend to flip more disks when you flip in more than one direction. Also, your opponent can never wipe you out on the move immediately following a move in which you've flipped in more than one direction.
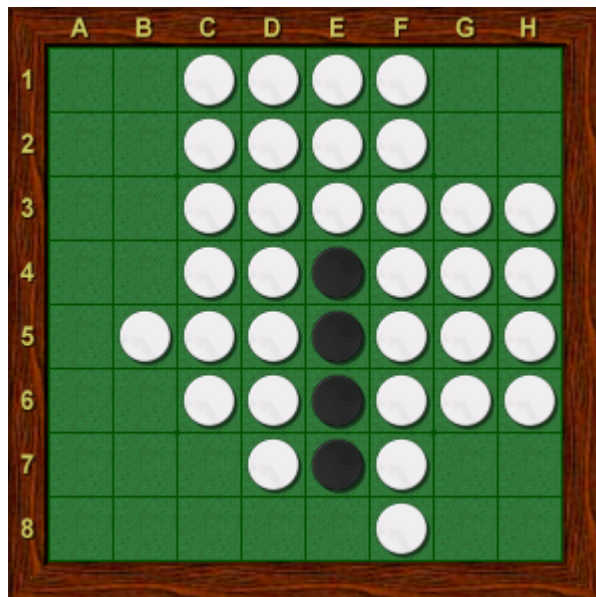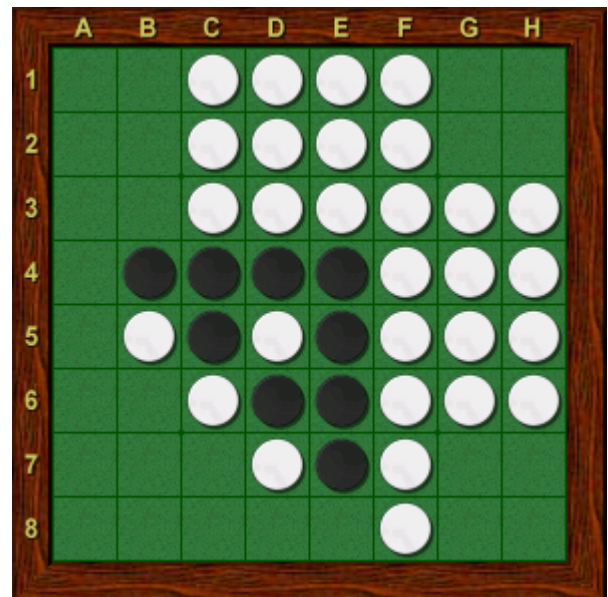
Black To Move   **Black Plays B4**

In the above position, establishing a stronghold on the edge by playing C8 doesn't work because then white plays E8 and neither player has any more legal moves (and thus white wins). Obviously another idea is in order. An example safe move is for black to play B4 which flips disks in 2 directions. After this move, white can't wipe black out during his or her next move.

Make a line that is not immediately reflippable

Obviously if a line is not immediately reflippable then your opponent can't wipe you out on the next move. Making a non-reflippable line is usually a delaying tactic that you will use until you can play moves that meet one of the two above criteria.
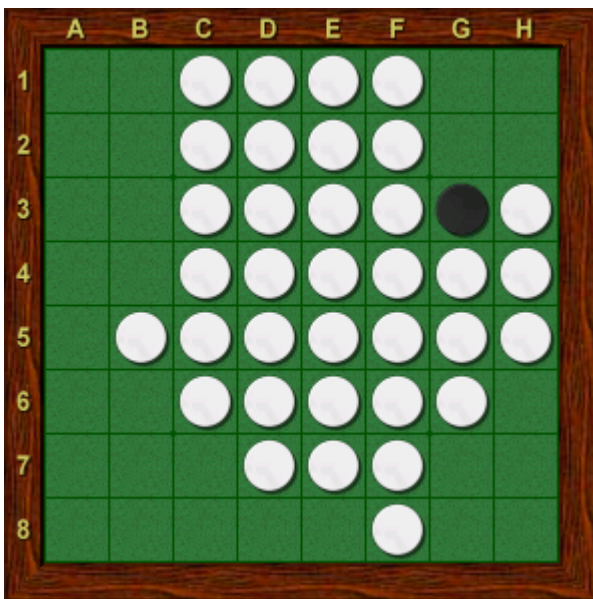
BLACK TO PLAY
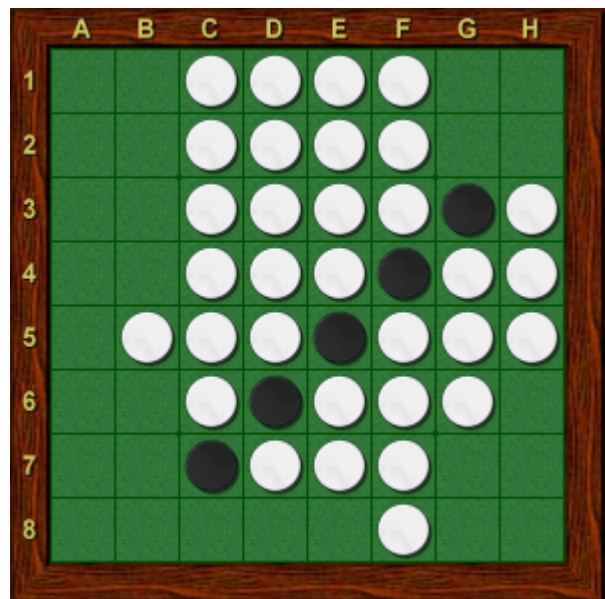
BLACK PLAYS C7

In the above example, if it were white's move, white would play H2 or G2 and wipe black out. Since black has no moves that establish a stronghold on an edge – nor does he have any moves that flip in more than one direction at once, black's only reasonable moves are ones that makes a line that white can't immediately reflip. In this case there are 2 moves that meet our criteria - C7 and G7. Obviously black doesn't want to give white the corner so black should play C7 here. The move to C7 forms a line between C7 and G3 that white cannot immediately reflip the next turn. Now, regardless of what white plays, black will have moves like H6 and B4 next move which will avoid being wiped out.

What's in an edge

Let's take a look at another position and see what we can learn from it:
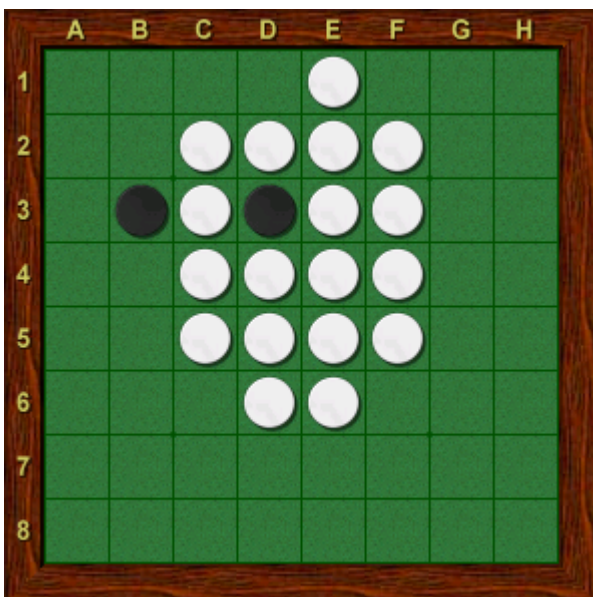
BLACK TO PLAY

So you're looking at the position on the last page and you're wondering "OK, black has a lot fewer disks and white has very poor mobility. How does black win a corner?" The answer is: black can't win a corner in this position (at least – not in the next couple of moves). What's different about **this** position? Because of black's disk placement, white only has one "dangerous" move that he could play if it were his turn, A2. It is very easy for white to avoid playing to A2. Let's play fantasy Othello for a bit and move one disk on the board slightly:
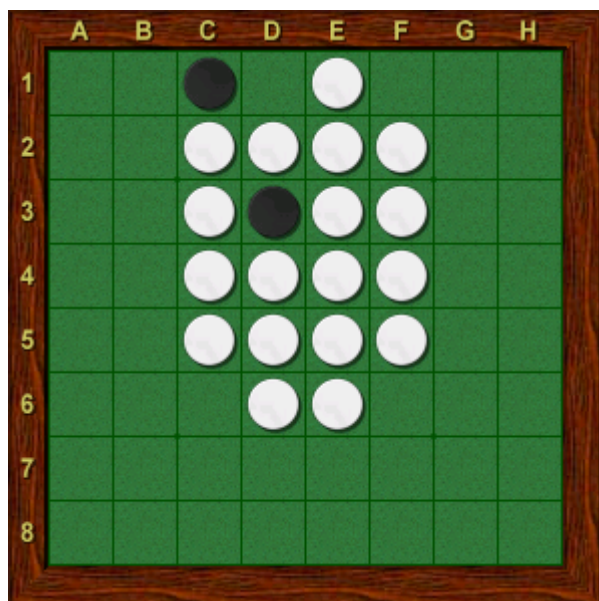
BLACK TO PLAY

Now black does have a move that wins a corner (black plays B1 and white must play B2). You should notice that in the second diagram, the disk that previously was in the middle of the board is now on the edge. In fact, in all of the winning positions that were presented in the last chapter as examples (and in the current example as well), all of the correct moves for black to play (because they force white to lose a corner) were edge moves. As mentioned in the last chapter, edge disks can only be flipped along the edge so this means that edge moves tend to be quieter than non-edge moves. Quieter moves give your opponent fewer options the next turn. Eventually if you can play enough quiet edge moves, your opponent will run out of other moves and have to give you a corner. This simple strategy is known as *edge creeping* because you are attempting to creep slowly along the edge until you win a corner.

Another thing that you should notice is that in the original diagram, the black disk is on the outside of the mass of white disks where it could be flipped – which means that white has a couple of possible moves to begin with. Disks that are on the outside of a mass of opposite colored disks that can be flipped are called *frontier disks*. The edge disk in the second example isn't a frontier disk at the current time because it can't be flipped. In the future, white may get a disk at D1 or black could play to D1 in which case C1 would become a frontier disk. Since every frontier disk provides your opponent with a potential move, having,fewer frontier disks mean that you have a better position.

Now that I've set some general guidelines, we'll spend the next few chapters exploring the three phases of the game: the opening, the midgame, and the endgame. We'll look at how to apply these guidelines to the three phases of the game as well as when these guidelines no longer apply.

Simple Opening Advice

> ➢ Understanding is the key
> ➢ More of the same
> ➢ A few new ideas
> ➢ Pay attention!

In chess, one of the biggest mistakes that I feel that beginning players make is to assign too much importance to the openings. They feel that better players are "tricking them" by being better prepared in the openings. So, they rush out and buy a book of openings and start memorizing them. While I feel that having an opening repertoire is useful for a more seasoned player, it is much more important for a beginner to understand the WHY of an opening. When you memorize openings without understanding why you are making the moves, the instant you venture into unfamiliar territory, you are likely to blunder. What I do recommend is to keep your eyes open and trying to learn from your mistakes.

Do you keep making the same kinds of moves and keep getting into bad positions because of them? I know it sounds obvious, but figure out what it is that you're doing wrong and try not to do it anymore. Thinking about what concepts and ideas do work and what ones don't work will help you all the way from beginner through master.

Now that I've encouraged you to experiment and discover openings on your own, I'll try to give some general advice about what you should be trying to accomplish during an opening. Much of what I have to say is similar to the advice that I've given in the previous sections but it doesn't hurt to re-iterate it here.

- Try not to take too many disks.
- Try to head for the edges.
- Try to limit your frontier.
- Don't play into X-squares or C-squares where you're putting yourself in a dangerous position.

In addition to these basic concepts, there are a few new concepts I'd like to introduce here as well.

The first concept I'd like to introduce is the *Sweet 16* – this term refer to the central 16 squares of the board:
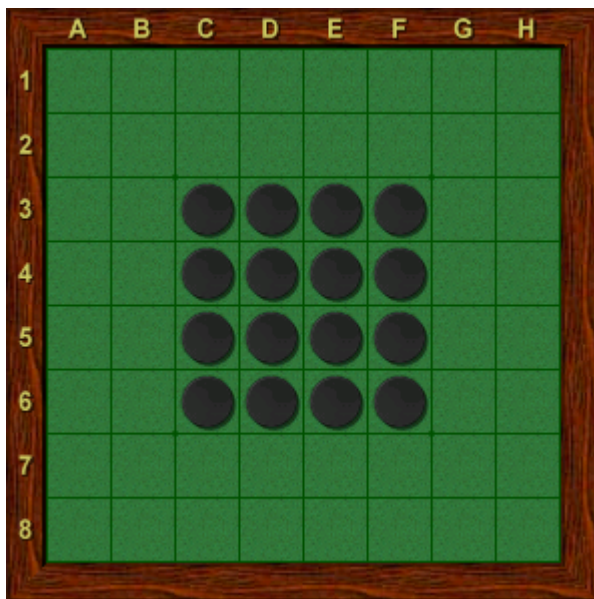
THE SWEET SIXTEEN

In the opening it's generally better to play a move into the Sweet 16 than another move elsewhere on the board. It also stands to reason that preventing your opponent from getting moves into the Sweet 16 is also a good thing. Disks played in the sweet 16 don't let your opponent reach an edge (where they may try to edge creep). Additionally, disks in the Sweet 16 are less likely to remain frontier disks during the course of a game.
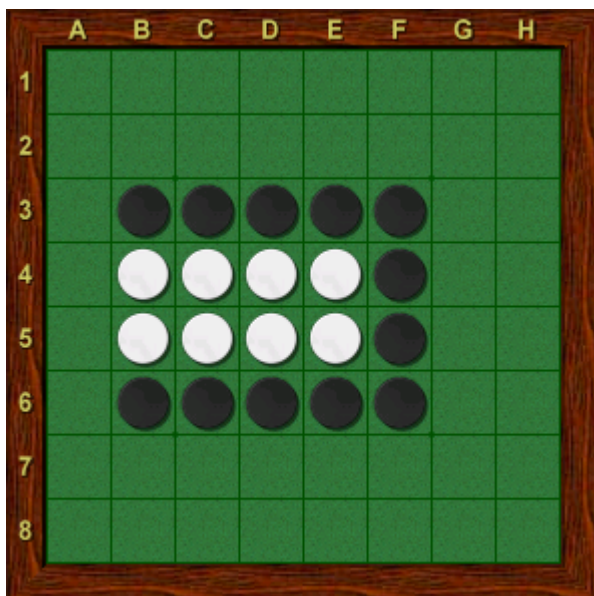

Another useful rule is that staying in the middle of your opponent's disks is good.

This is called *staying central*.

Notice that white only has two frontier disks (B4 and B4) in this position because white's disks are central to black's disks. As we discovered in the last section, having fewer frontier disks is usually a good thing.

Another good idea is to stay compact. Being compact means that you don't want your disks spread out all over the place. You definitely don't want spaces in between your disks because those squares are very likely places for your opponent to play to stay central to your disks. Notice how in the previous example all of white's disks are in one big clump while black's disks are almost cut in two by white's disks. In the example, white is compact and black isn't. Staying compact also tends to lead to fewer frontier disks.
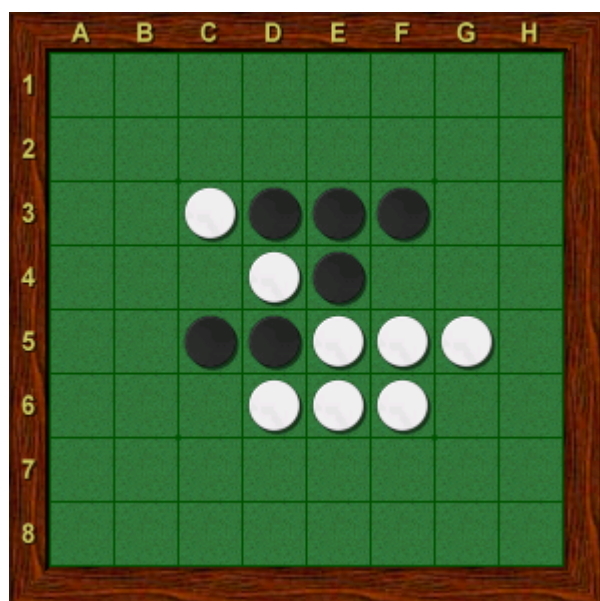
BLACK TO PLAY
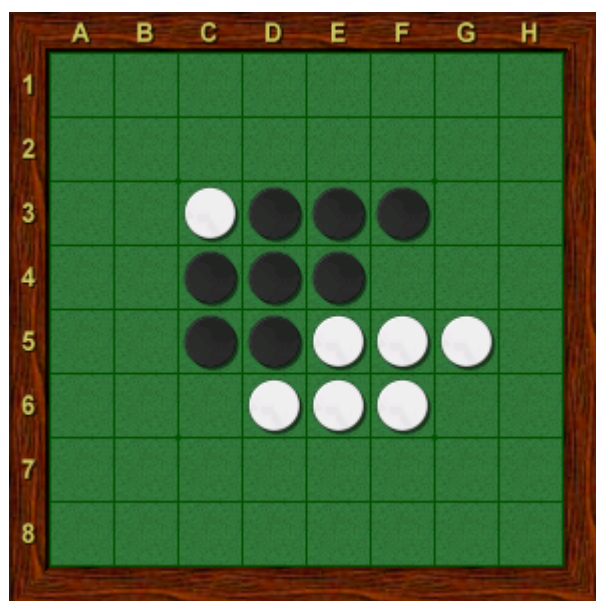
BLACK PLAYS C4

One good way to stay compact, central, and to avoid having a lot of frontier disks is to play a move that reflips one of the disks that your opponent just flipped. For example, in the above diagram, white has just played to C3. Black responds by reflipping the disk at D4 by playing to C4. After this move, black is both central and compact.

Before I close out this chapter let's take a look at a common mistake that I see beginners make very often that emphasizes the necessity of staying central and compact.
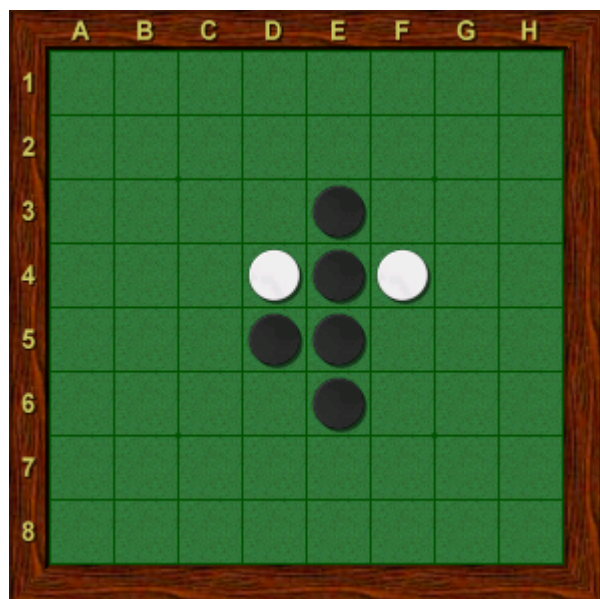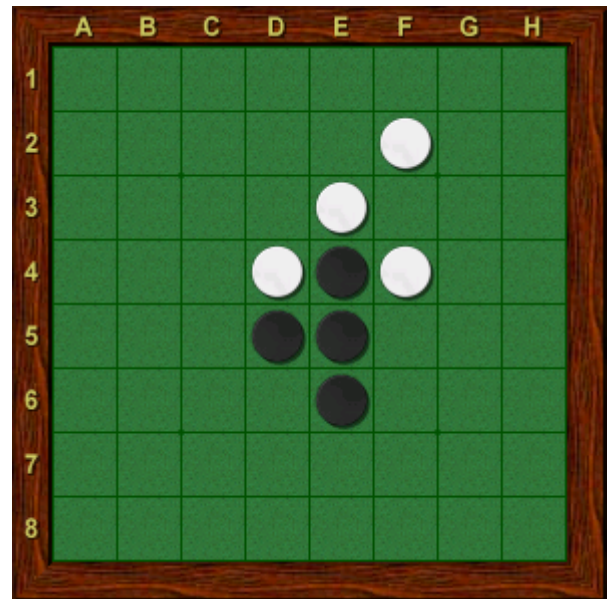

WHITE TO PLAY

The above diagram can be reached by playing E6, F4, E3 – we are 3 moves into the game. White has 4 options here, however, only one of them is any good.
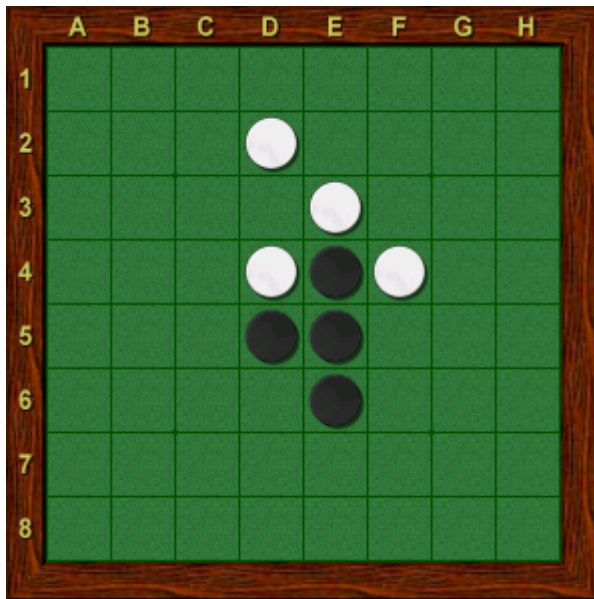
AFTER D2

AFTER F2

D2 and F2 – D2 and F2 only flip one disk but they have several other drawbacks. They're not in the Sweet 16 and they're not central either, in fact, either D2 or F2 will become frontier disks in typical continuations from this position. They aren't compact – as white is leaving "holes" in his position for black to play into. After playing D2, white has a "hole" at D2 that is very tempting for black to play into. After F2, there is a "hole" at F3 that is very tempting to play into (though at the moment black can't play to that square).
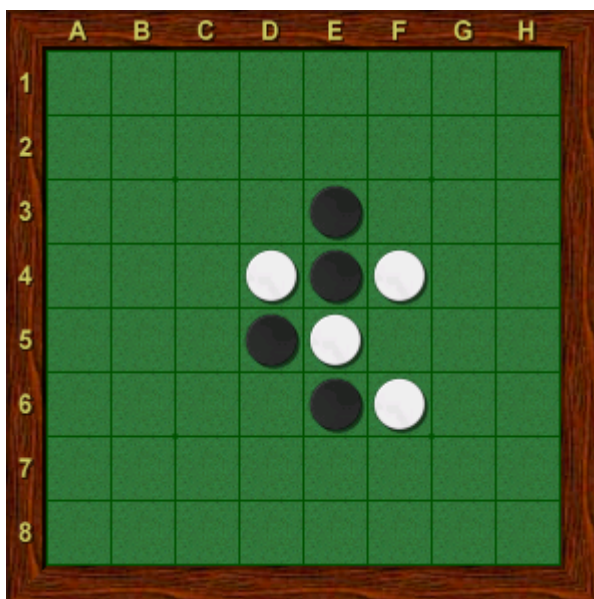

AFTER F6
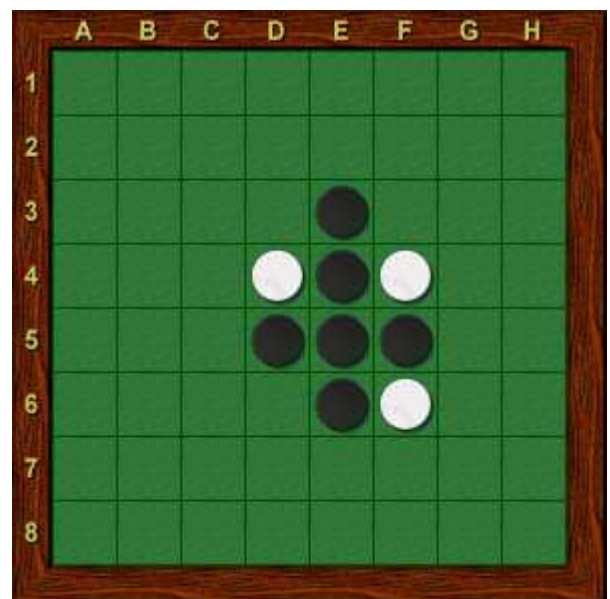
BLACK PLAYS F5

F6 – This move also only flips one disk, however, black immediately responds with F5 thus reflipping the disk that was just flipped. In fact, F5 is a perfectly quiet move for black and after playing F5 black

is very central and compact while white is spread out along the frontier. Yes , black has more disks but because of where they are white's position is not very good at all.
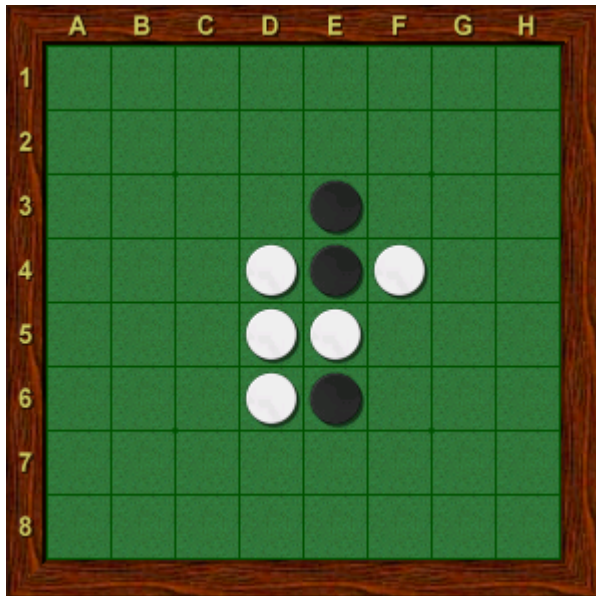

AFTER D6

D6 – This move flips two disks, which isn't a lot in the grand scheme of things (it may seem like a lot because there aren't many disks to begin with). While D6 does flip more disks than what the other moves flip, after D6 white is both central and compact while black is stuck on the outside. D6 is the clearly the best move in this position.

Simple Midgame Advice

> ➢ It's all about mobility
> ➢ Tempo

As we've noticed in the previous sections, having and keeping mobility is a very important thing. When you run out of mobility it's very likely that your opponent is going to force you to give up a corner and they will win. In the midgame, your job is usually to avoid running out of mobility while retaining a good position and trying to run your opponent out of mobility in return. Often, you will find that there are moves that you are forced to play or your opponent will run you out of mobility. Most of the time when I refer to a move as being a *forced move*, it means that the move must be played to prevent the other player from attaining a killer sequence. Obviously, if there is only one valid move on the board it is also a forced move. Let's take a look at a position where one of the players has a forced move.
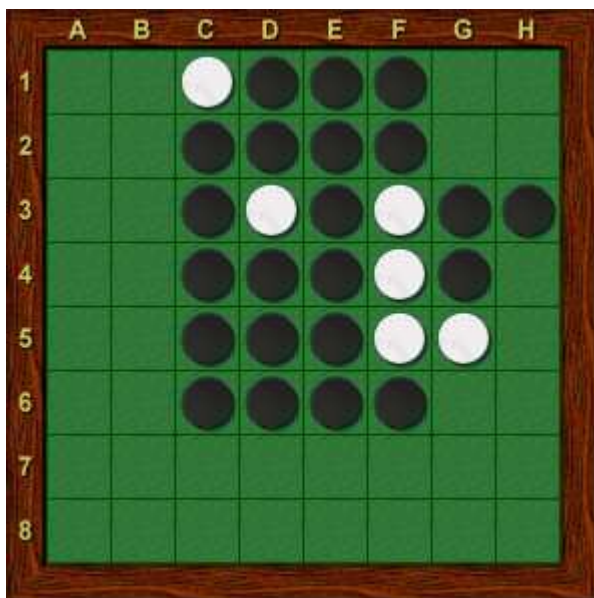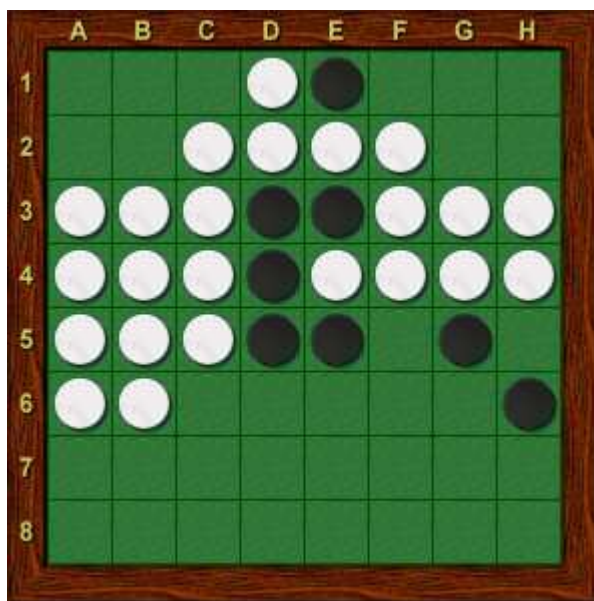

BLACK TO PLAY

In the above position, white is already way ahead on mobility but black isn't dead just yet. While white is certainly winning he or she should still have to work to finish off the game if black plays accurately. However, black's next move is forced. Black MUST play B1 here. If black doesn't play B1 then white will take the edge with G1 next turn. To understand why, let's take a look at what happens if black plays a different move.
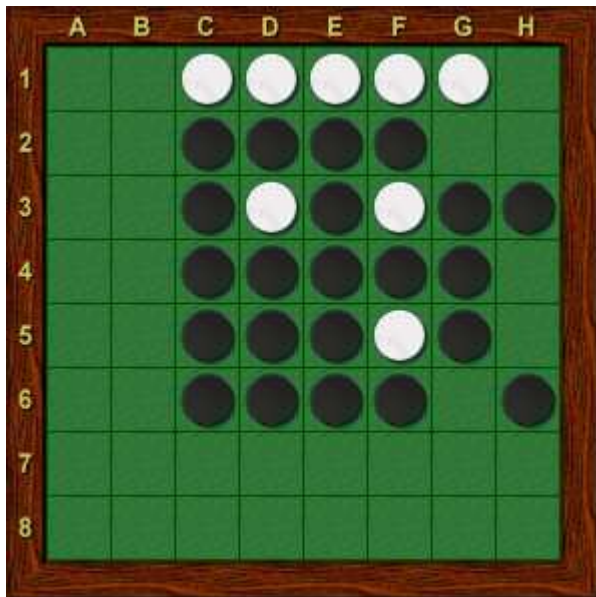
BLACK PLAYS H6 – WHITE PLAYS G1

If black plays H6 then white responds with G1. Black is then forced to play G6 next (as it's the only legal move) to which white responds B1 and then black must play an X-square. If, in the original position, black takes the edge by playing B1, his position isn't exactly desirable, but he survives a while longer and gives white the opportunity to make a mistake.
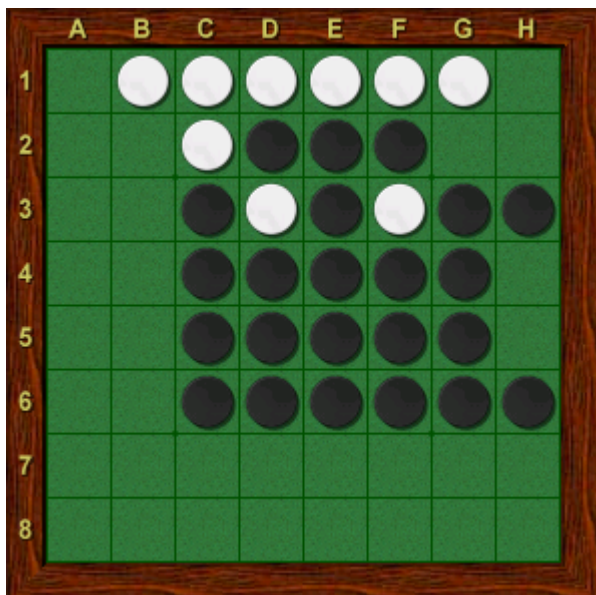
BLACK PLAYS G6 – WHITE PLAYS B1

In the example, both players can take the north edge with a gain of *tempo*. We say that a player has gained a *tempo* when they play a move or a sequence of moves that gain them an additional safe move without giving their opponent any new safe moves. Additionally, after white has played to G1, B1 becomes a safe move for white and playing B1 doesn't create any new safe moves for black. Thus white has gained two tempo via this sequence. Very often, the moves that are the most likely to be forced are moves that we have to play in order to prevent our opponent from gaining too many tempo. In fact, there are times when it is possible to win 3 or 4 tempo with proper play! Let's take a look at an example.
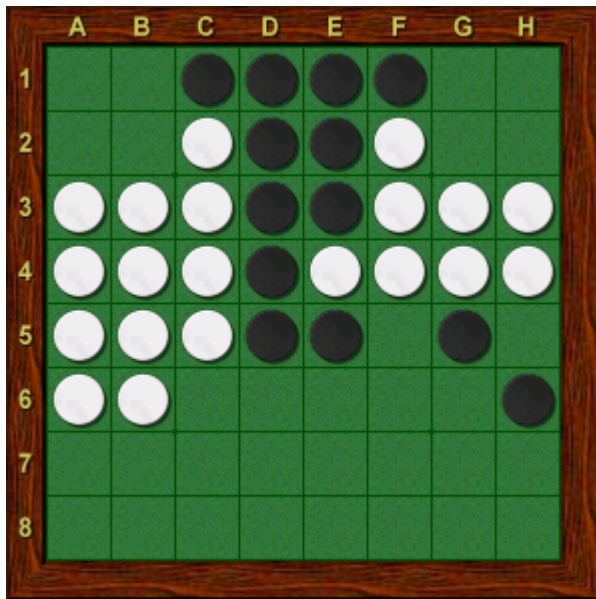

BLACK TO PLAY
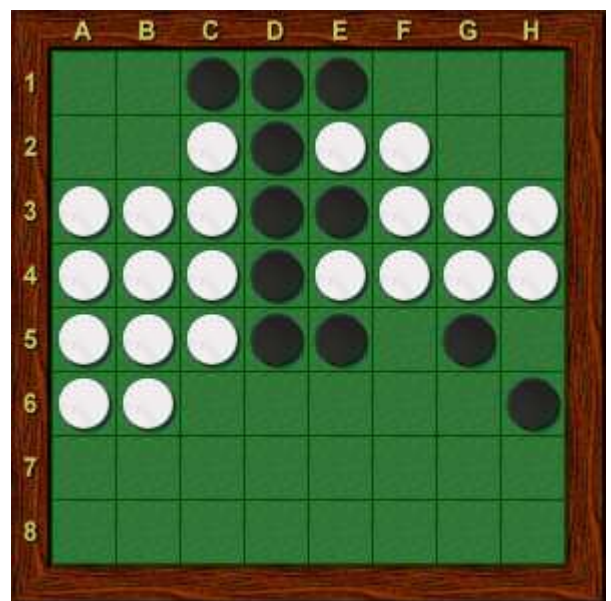
BLACK PLAYS C1

In this diagram, the move to C1 is the first tempo that is won in a sequence that wins 4 tempo for black! Even if white could somehow pass for the next 3 moves, black would still be in good shape. Let's take a look at this fictional "game" where black plays the next 3 moves and uses up all of his or her spare tempo.
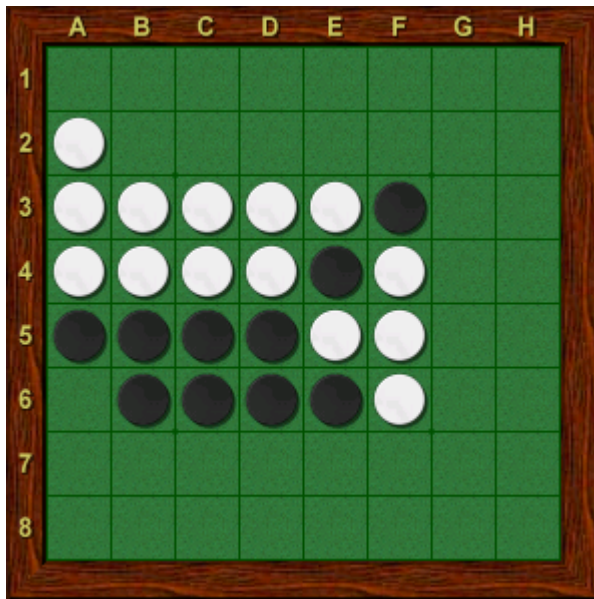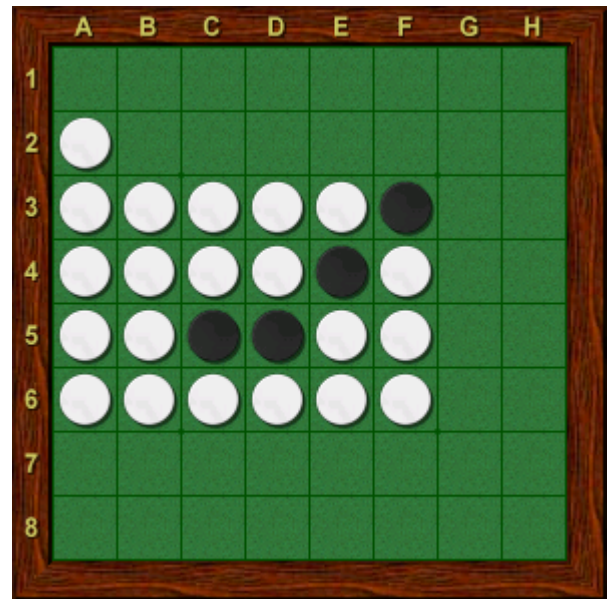
BLACK PLAYS F1

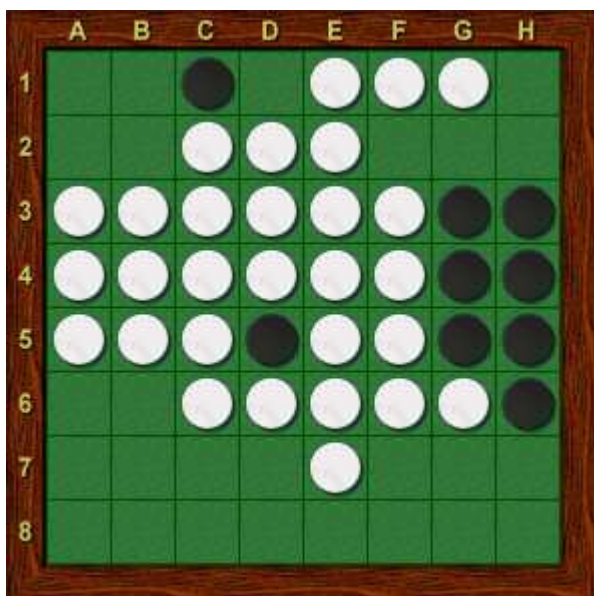**BLACK PLAYS B1**

BLACK PLAYS G1

Another common example of a forced move is when your opponent is threatening to take a corner and you have to play a certain move to prevent that from happening. Let's look at an example:

WHITE TO PLAY
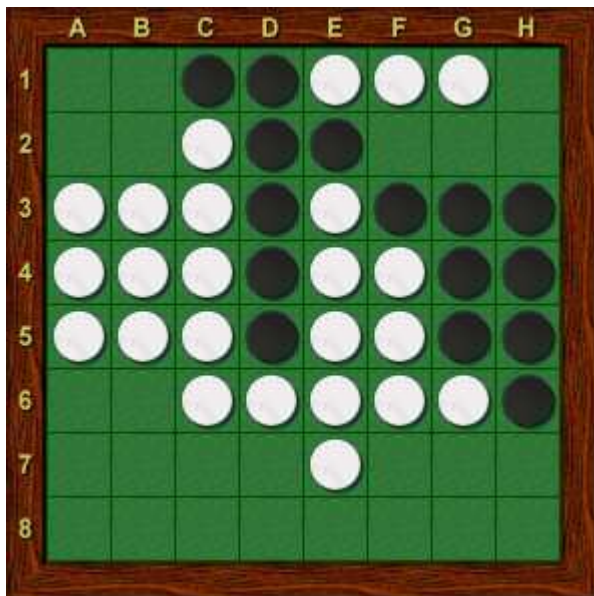

WHITE PLAYS A6

In the above picture, while white has many possible moves, white is forced to play A6 even though this move flips a lot of black disks and almost eliminates black's frontier. If white doesn't take the edge, black wins the A1 corner and wins the game convincingly.

From the above examples, it's easy to see that a lot of times we will be forced to take edges in order to prevent our opponent from gaining enough tempo to run us out of mobility or to prevent them from taking corners.

Often, when we're looking for a killer sequence, we are looking for a way to win a single tempo because if we win a single tempo our opponent runs out of safe moves.


BLACK TO PLAY

In the example, while white has no safe moves at the moment, every black move gives white more safe moves to play. For instance, if black plays F7 then white can safely play to F8.   In fact, if black could pass here, he would win because white would be forced to give him the H1 corner. Fortunately, black has a forcing sequence that wins a tempo which in many cases is the same as passing. If black plays D1 then white will be forced to play B1 to protect the H1 corner. Black can then win the game by playing F2 forcing white to lose the H1 corner.

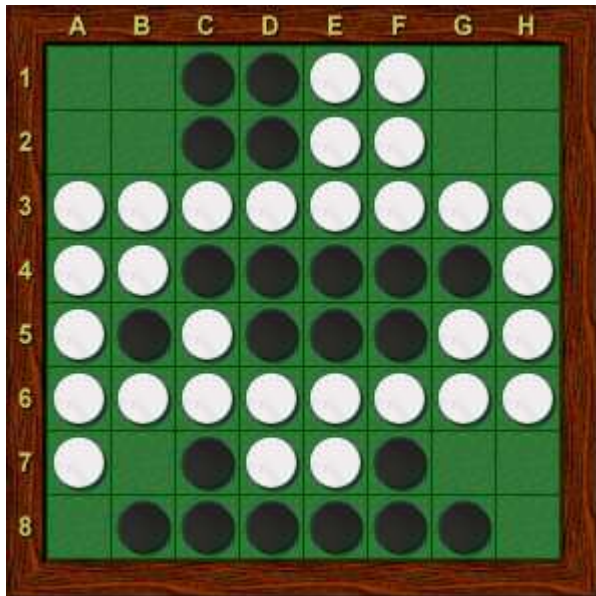**BLACK PLAYS D1**
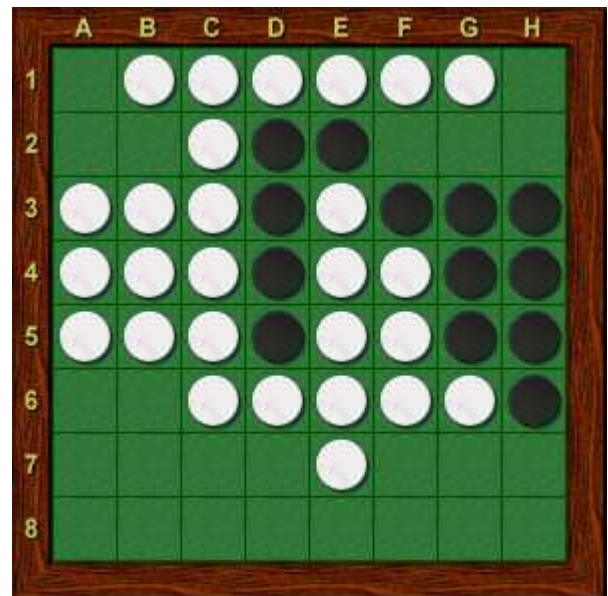
WHITE PLAYS B1 (FORCED)
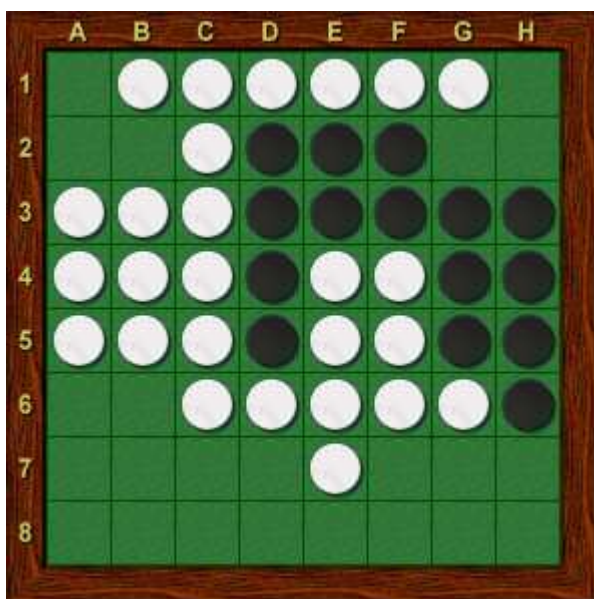
BLACK PLAYS F2 AND WINS

Because Othello is a game where you often want to pass in order to improve your position , winning tempo from your opponent and not losing any tempo in return will often go a long way towards winning a game.
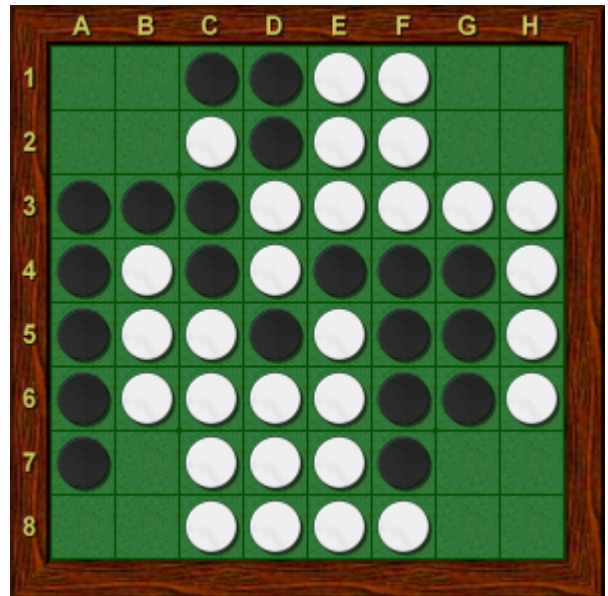
Exercises:
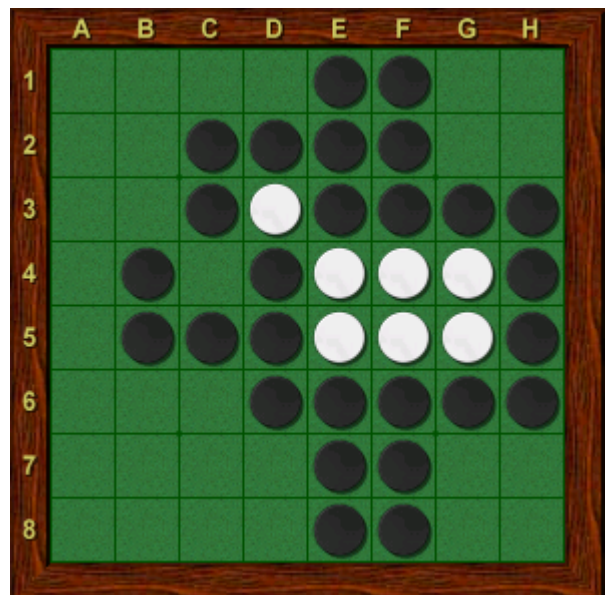
1.

BLACK TO PLAY AND GAIN TEMPO

2.

WHAT IS WHITE'S FORCED NEXT MOVE?
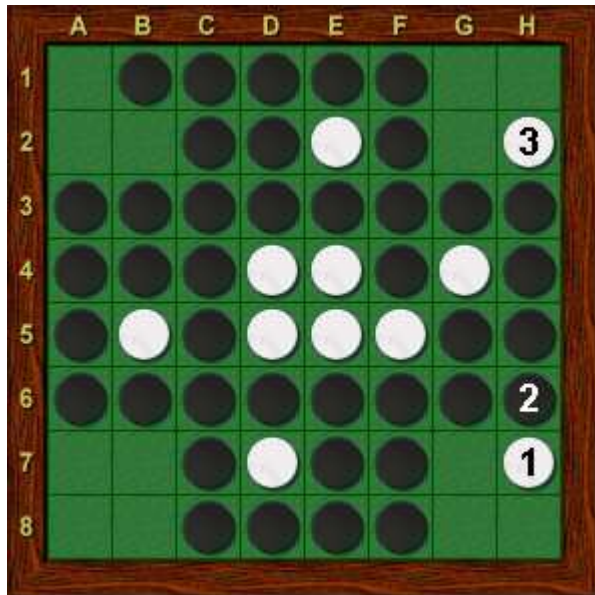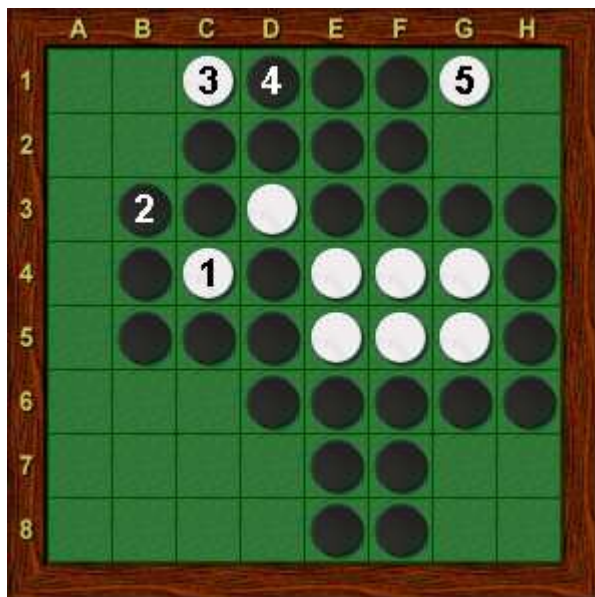
3.

WHITE TO PLAY AND WIN

4.

WHITE TO PLAY AND WIN

Answers:

1. Black plays G1.
2. White plays B1 (otherwise Black wins tempo with G1 and then B1).
3.

4.

Simple Endgame Advice

- ➢ Build on what you already know
- ➢ More is More
- ➢ Rules are made to be broken …

Now it's time to finish off your opponent with a flourish. The corners that your opponent had to give you are now turning into anchors from which you'll build your empire. The first order of business is to consolidate to your color as many disks near your corner as possible. As disks near your corner are captured, more and more of them will become stable. If your position is good enough, you'll even have a chance to build in a way that will force your opponent to give you another corner. After taking that second corner, you can consolidate around it as well.   Let's look at a quick example:
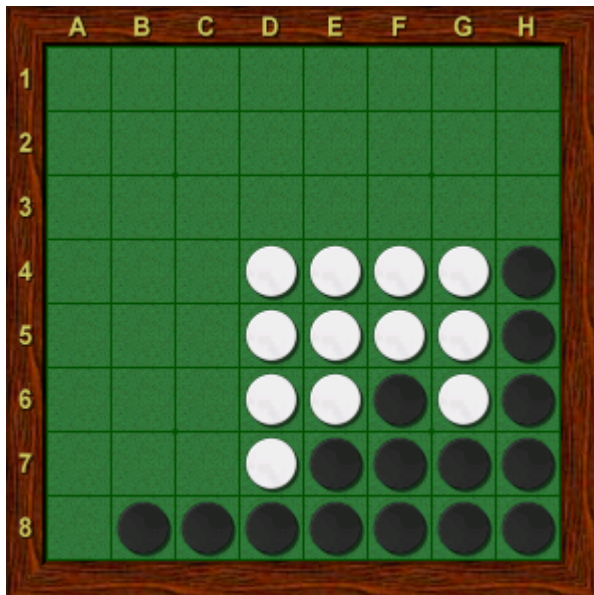

STARTING POSITION
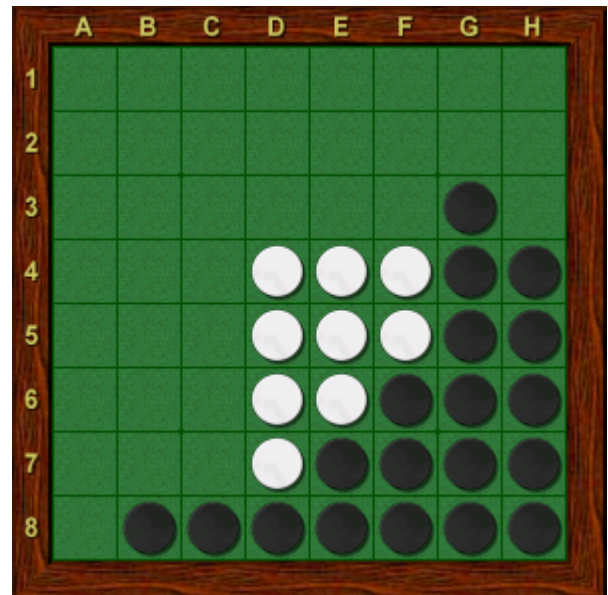
BLACK PLAYS G3

There are several ways to consolidate disks near the H8 corner – because the disk at G6 is closer to H8 than any of the other white disks, we'll play G3 – which flips that disk in the least disruptive way possible. Notice that D3 would also flip the G6 disk – however, after G3, white has 2 options, after D3, white has 6 options. Once your have your opponent under control, its better if you keep them under control and limit what they can do. The more options they have, the more complicated the position will become and the more complicated the position is, the easier it is to make a mistake that will lose disks. While black isn't in any danger of losing after D3, white may be able to salvage 15-20 disks if black plays inaccurately. However, after G3 white is still in danger of being wiped out, even if black makes a few minor errors. It's also much easier to calculate ahead when your opponent only has one or two options because then you can concentrate on finding your best moves instead of having to worry about them fighting back.

After G3, white has 2 options, H3 and H2. Let's look at both:
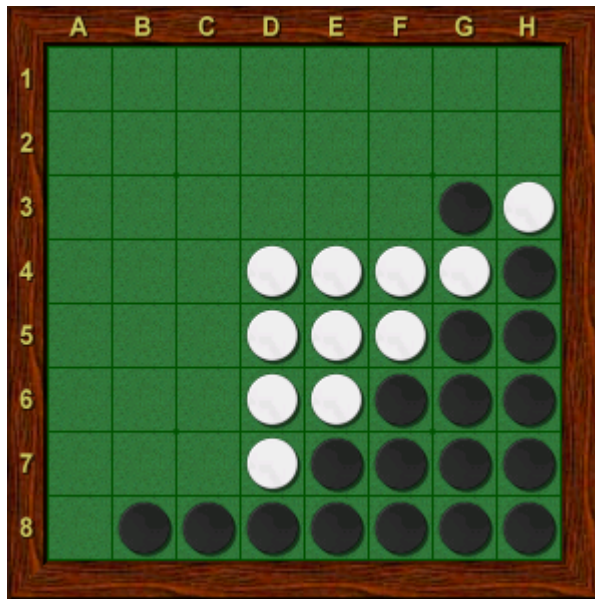
WHITE PLAYS H3
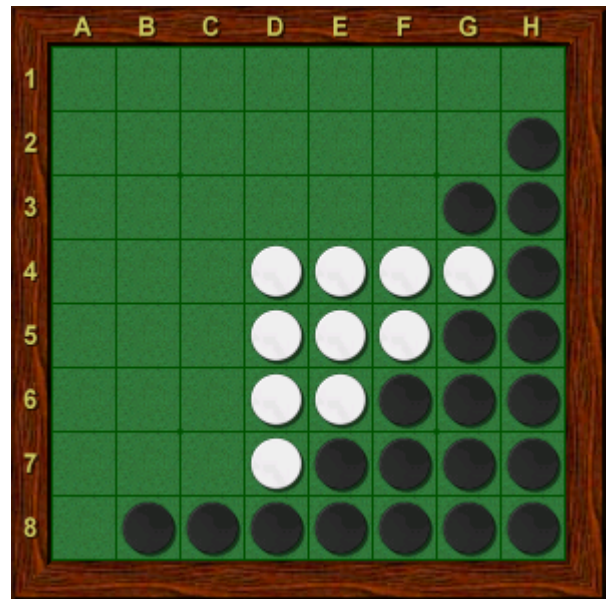
BLACK PLAYS H2

OR
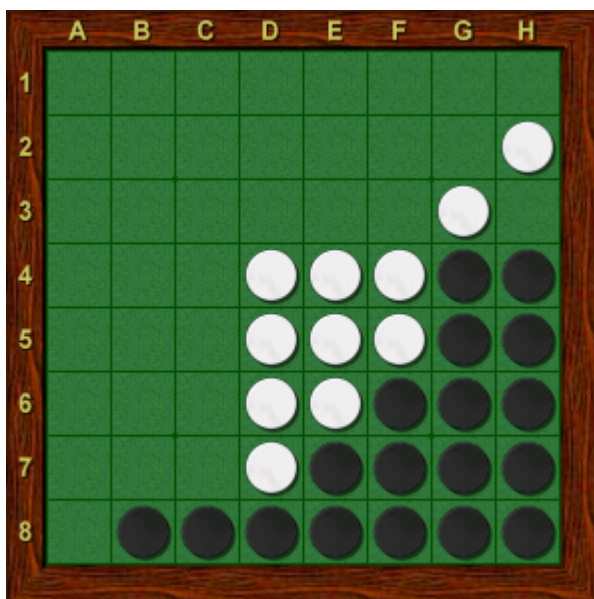
WHITE PLAYS H2
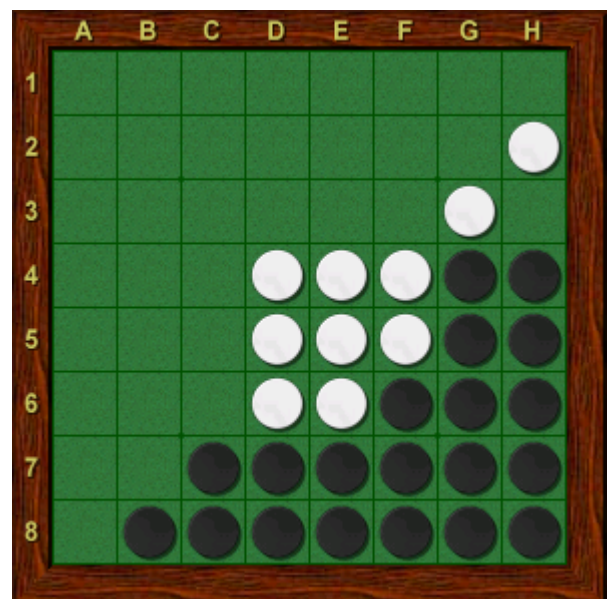
BLACK PLAYS C7

If white plays H3, then black plays H2. White has to play G2 the next move and black will easily take the northeast corner. If white plays H2, then black plays C7 and then white is forced to play H3 also giving up the corner. After taking the northeast corner, black will consolidate around that corner as well and will have an overwhelming advantage.

Exercises: In the following diagrams, find a wipeout sequence. In most of the puzzles there is more than one wipeout sequence but only one solution is given, if you find another - good job! I've deliberately made these exercises quite a bit harder than the previous ones on building. In fact, I had a lot of trouble with the #3 and #4 myself! These more difficult puzzles are meant to hone your skills to the point that they're razor sharp. With a little more practice, winning this type of position will become second nature to you.
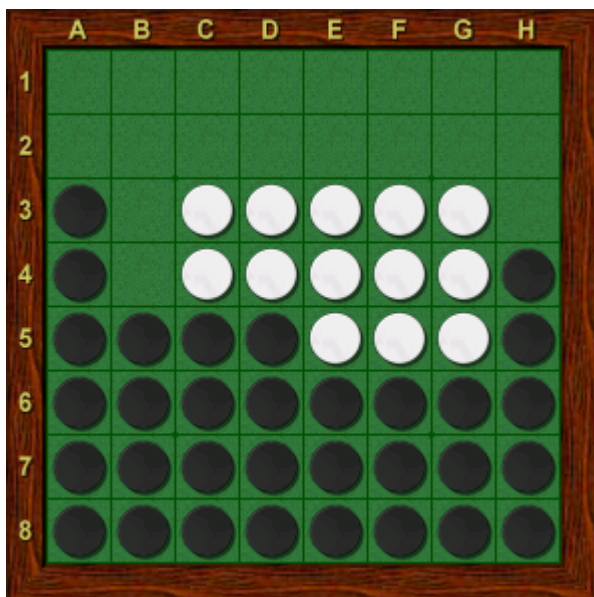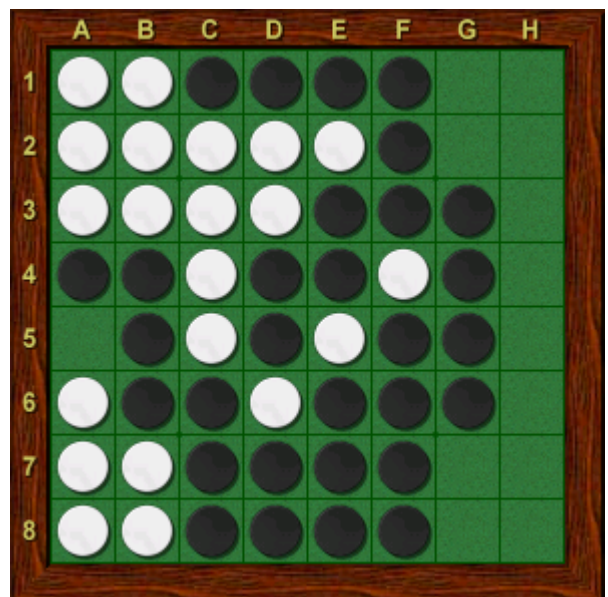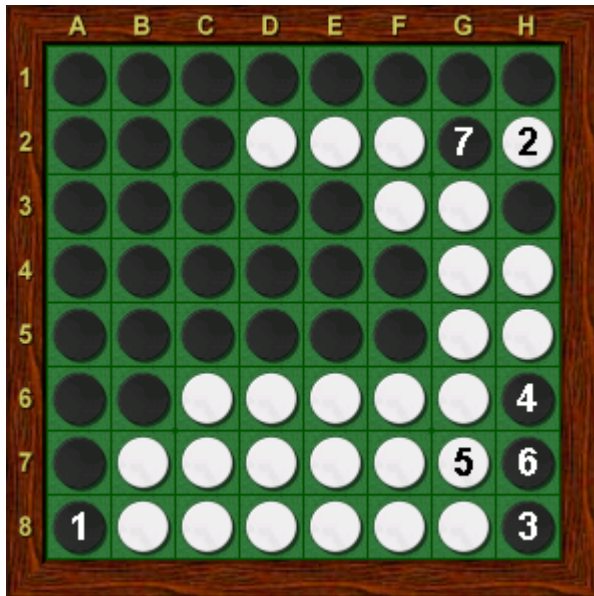
1.

Black To Play

2.

Black To Play

3.
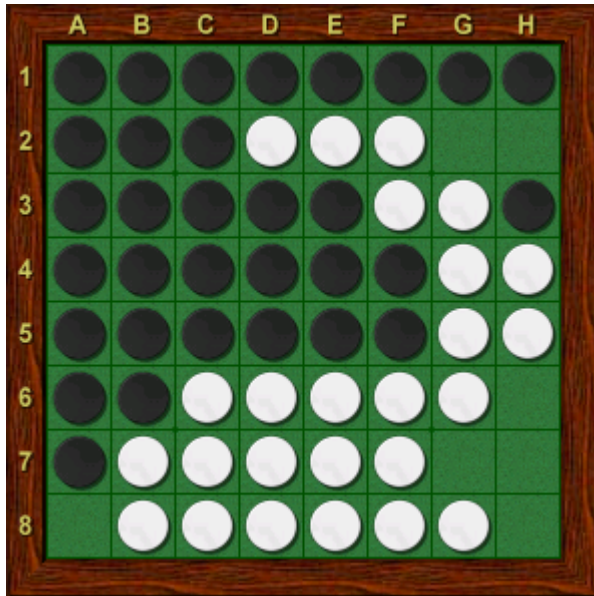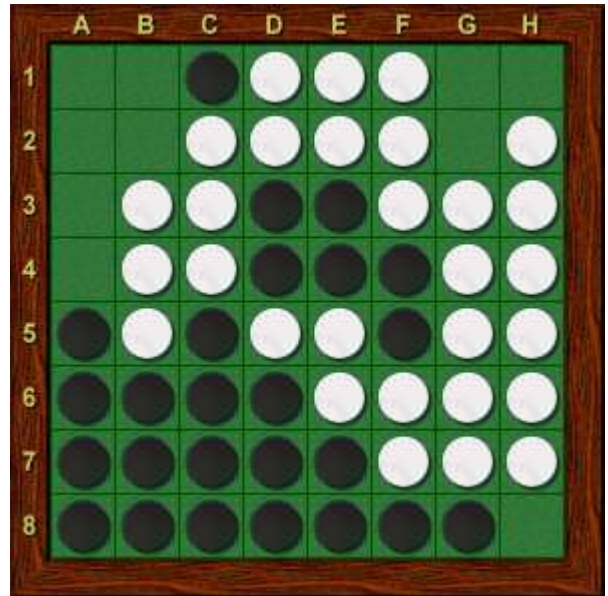
Black To Play

4.

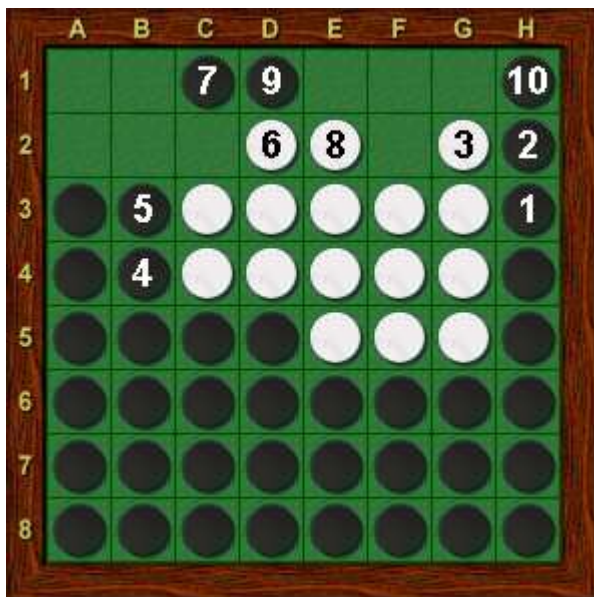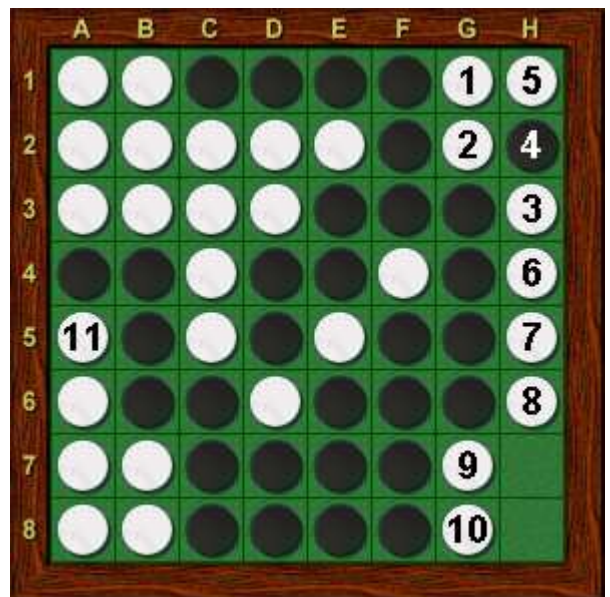**Black To Play**

Answers:

1.

2.
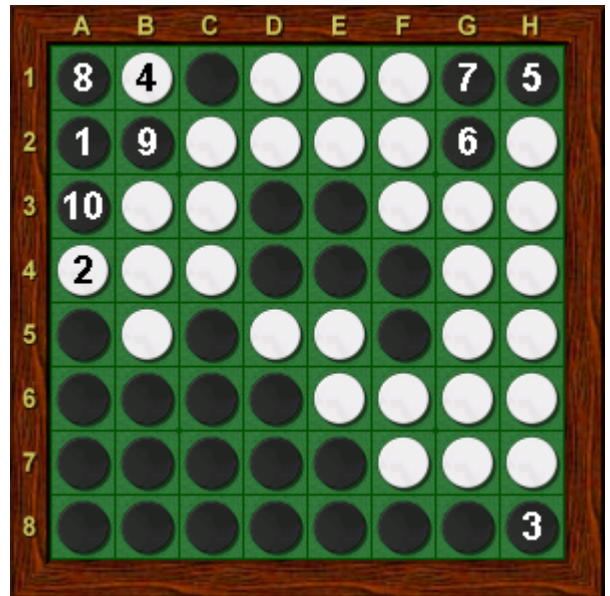
3.

4.

Counting and Basic Endgame Theory

Of course, building is only going to help when you're way ahead. At some point in a closer game you have to remember that you want to have the most disks at the end and more importantly the end is getting near. You are trying to keep the number of disks that you have to a small number as suggested in the previous sections, right?

Obviously, at the end of the game, keeping your disks to a minimum is not as good of an idea. You have to start playing moves that take a lot of disks. Usually, in a fairly even game, this is when there are about 8 or 10 empty squares on the board. Unfortunately there's no hard or fast rule for when you should start taking a lot of disks, however, if you can take a lot of disks and most are stable or they make other disks that you have stable, then it is probably a good idea.
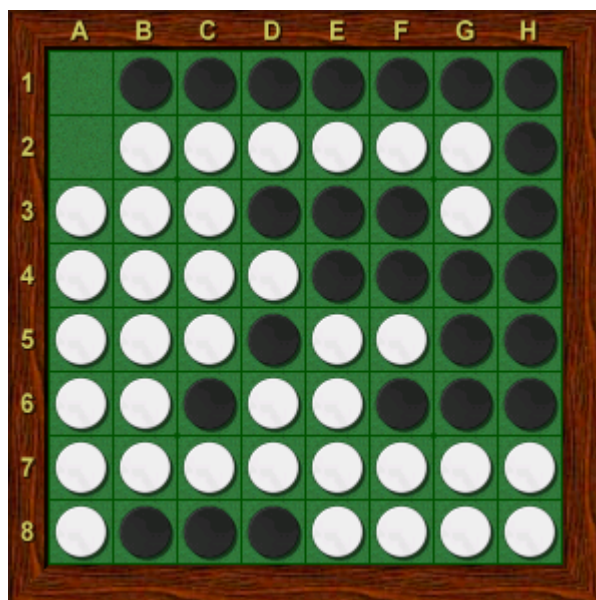
BLACK TO PLAY

We'll start with the simple example shown above. We're at the last 2 moves of the game – so this should be easy. This process of calculating the best play sequence is called ***counting***. Counting is a difficult skill to master and there are many strategies for it. I prefer to simply employ a plus minus count of disks and see which sequence is "optimal".

Let's count black's move to A1 first. Black plays A1, that's +5 black disks. White Plays A2 (flipping B2), that's -1 black disk. So +5 – 1 = +4 black disks. The sequence where black plays A1 ends up with 4 more disks than in the original position. That's not bad.

Just to be on the safe side, let's check and make sure that the move to A2 doesn't get more disks. Black plays A2 and gets +9 black disks. White plays A1 and flips B2 and A2, that's -2 black disks. +9 – 2 = +7 black disks!

So, taking the corner in this case is the wrong move. In fact, if we count the disks currently on the board, black has 26 disks. 26 + 4 = 30. Black loses 30-34 if he takes the corner. 26 + 7 = 33. Black wins 33-31 if he plays A2. The difference between winning and losing is in understanding why this is the case. For one thing, the move to A2 simply flips more disks. With only 1 move left, white can't

flip enough of them back to make the corner worth very much. Remember, the reason that corners are important is that they tend to lead to stable disks. Here, there isn't anywhere for white to build off of, so the corner isn't worth very much. What we can learn from this fiasco is that rules are meant to be broken and that corners become worth less late in the game because there are fewer opportunities left to build from them.
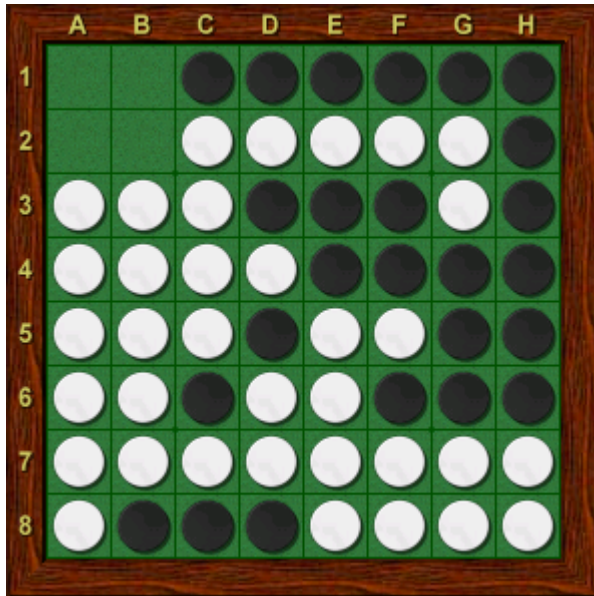
BLACK TO PLAY

In the above example, Black has 3 choices. Obviously A2 (giving up the corner for no reason) isn't helpful, so let's look at the other 2 options and how they play out.

B1 - After B1, white is forced to play to B2. The position after B1 B2 should look familiar because it is the position from the previous example! After B1 B2, Black would play A2, winning 33-31.

B2 – This flips 14 disks and many of them become stable.
If White Plays B1 (-3) – Black Plays A1 (+2) then White Plays A2.(-2) –
        +14 -3 +2 -2 = +11
    If White Plays A2 (-1) then Black Passes
                If White Plays A1 (-5) then Black plays B1 (+3)
                +14 -1 -5 +3 = +11
                If White Plays A2 (-4) then Black Plays A1 (+3)
                +14 -1 -4 +3 = +13
    If White Plays A1 (-5)
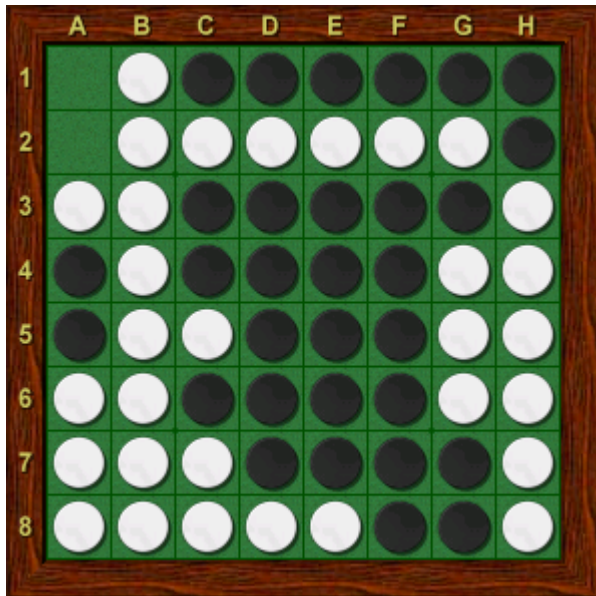   If Black Plays B1 (+2) then White Plays A2 (-1)
                +14 -5 +2 -1 = +10
                If Black Plays A2 (+2) then White Plays B1 (-3)
                +14 -5 +2 -3 = +8

After all this calculation, we see that the best sequence after B2 is A1 B1 A2. +10. In the original position, Black has 25 disks. This means that with perfect play black will win 35-29. Since 35-29 is

better than 33-31, B2 is the best move for black in the example position. Clearly being greedy and playing B2 and flipping a lot of disks works out well in this position.

Before we get too greedy and always start playing the move that flips the most disks on the board let's take a look at the above position.

If Black Plays A1 (+2) – White plays A2 (-1) = +1
If Black Plays A2 (+9) – White plays A1 (-10) = -1

Oops! Even though the move to A2 flips more disks, it's the wrong move. By playing to A2, black lets white flip all the disks on the A1-H8 diagonal as well as all the new black disks on the A edge.

One of the most difficult parts of Othello is playing proper endgames because at times the right sequence is nearly impossible to see without counting every possible variation, and that quickly becomes impossible, even for master level players. Even top human players make endgame errors, however, the errors that they make tend to be small (2 or 4 disks) and they tend get a lot of the moves right. On the other hand, I've watched games between beginners where both players trade endgame errors that are 8 to 10 disks wrong at almost every move.

One important rule we can follow when counting is to know that in almost all cases, if we have a sequence in which we get all of the remaining moves, it will probably be the best sequence.
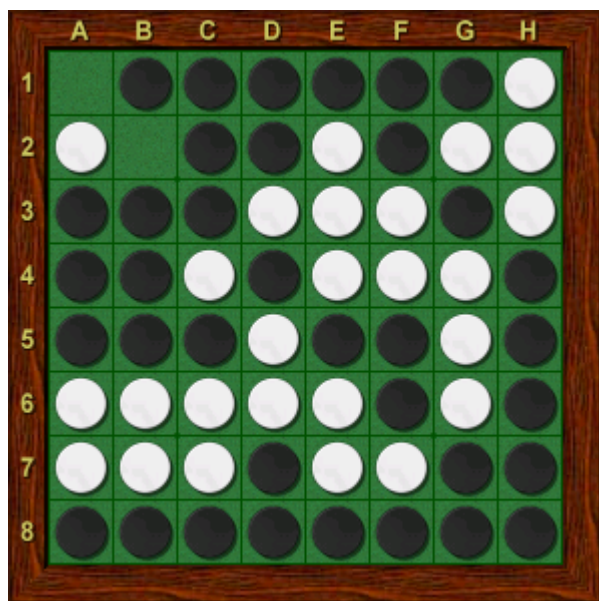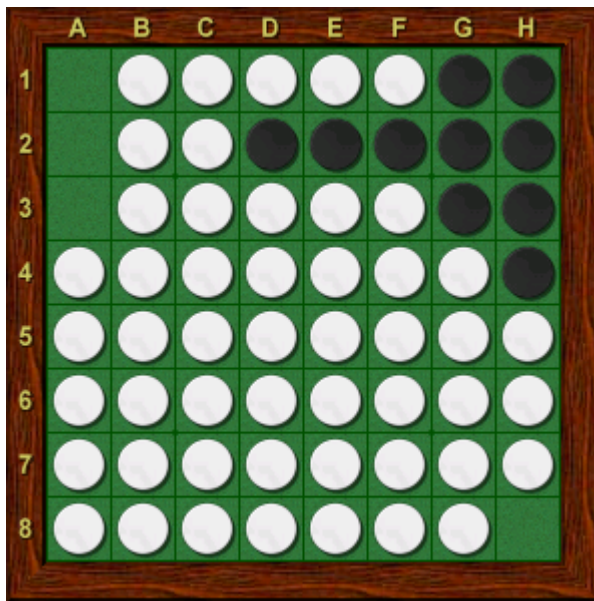
WHITE TO PLAY

If I were to sit down at the above game I would immediately play A1 as white. After playing A1, black is forced to pass. Then white plays B2 as well. If white were to play B2 first, black would be able to play A1. If I can get all the disks I would get by playing B2 AND all the disks from playing A1, it has to be better than just getting the disks from playing B2 (-2 because black flips the A2 and B2 disks when he plays A1). If we were to sit down and count this position. We would find out that A1 wins 39-25 while B2 loses 30-34.
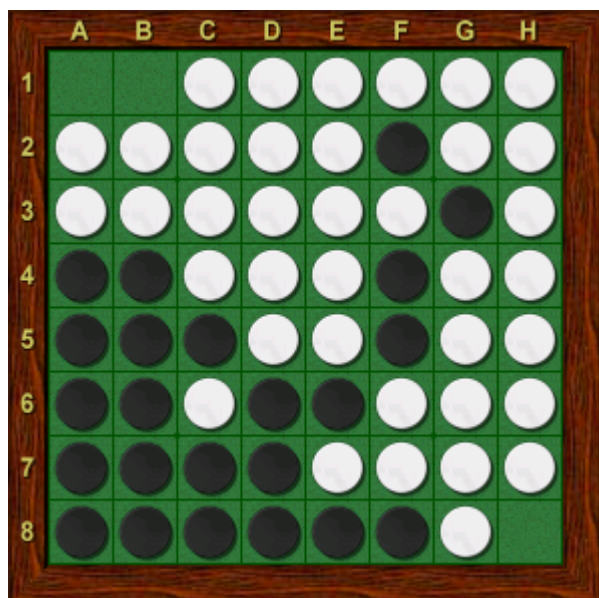
BLACK TO PLAY

If I were to sit down at the above game I would immediately play A1, Pass, B1, Pass, H8 and I get all 3 moves. Clearly, playing B1 isn't good as white just plays A1 and black doesn't get the A1-H8 diagonal. If black were to play H8 first and then A1 white would just play B1 because the B2 disk would get flipped. Without even bothering to count I know that A1 then B1 then H8 has to be best.

Exercises: Because people DO make errors, even with 3 or 4 empty – it is in your best interest to learn how to play simple endgames correctly. Not only will you win close games that are "won" for you, you'll also win some close games where your opponent will make a mistake or miscount. In the following exercises, find the winning sequence.
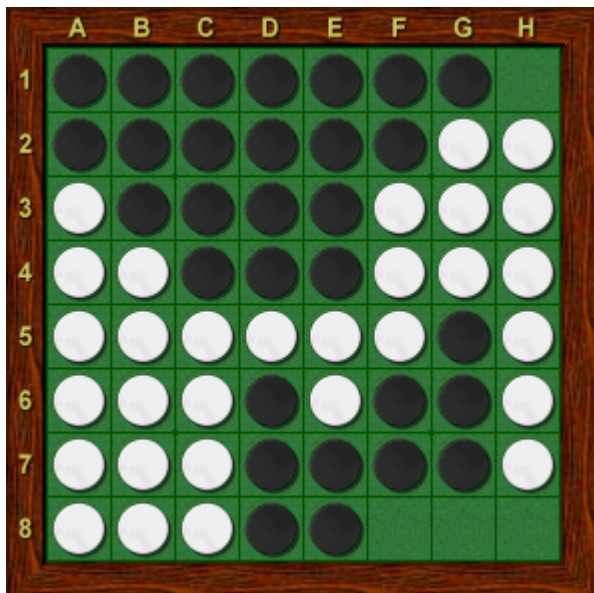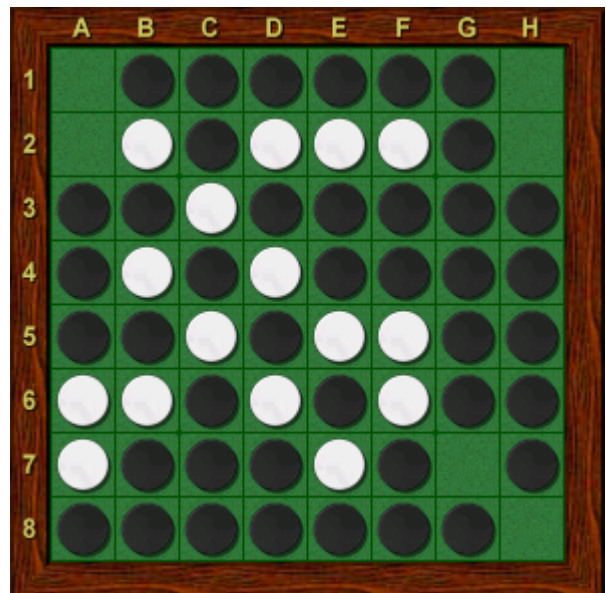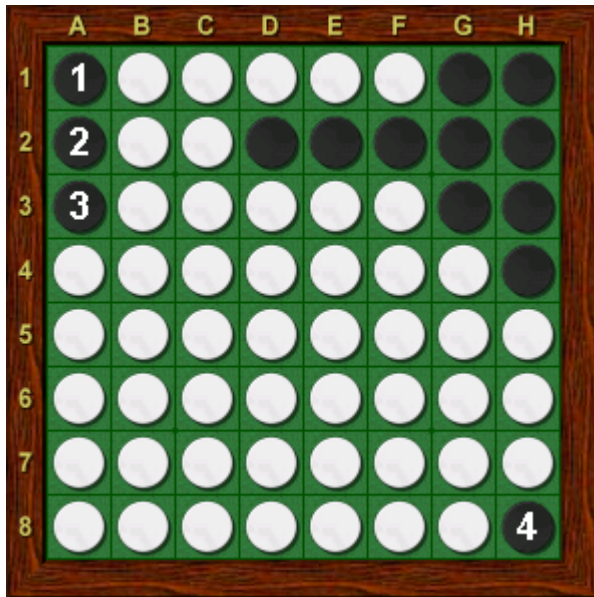
1.

BLACK TO PLAY

2.

WHITE TO PLAY

3.

WHITE TO PLAY

4.
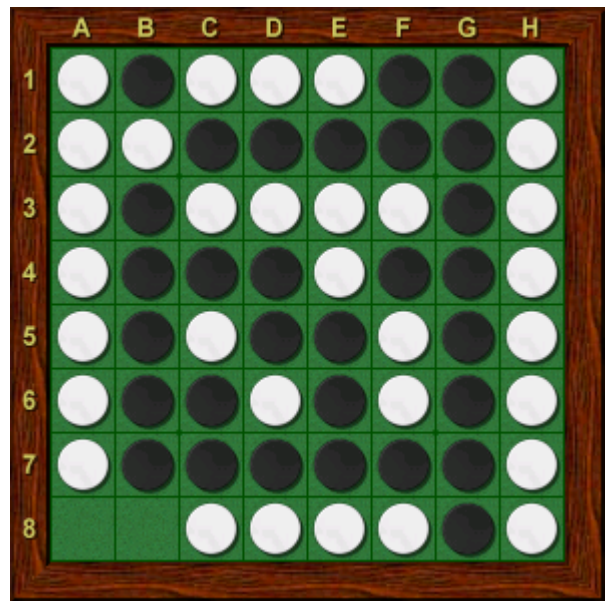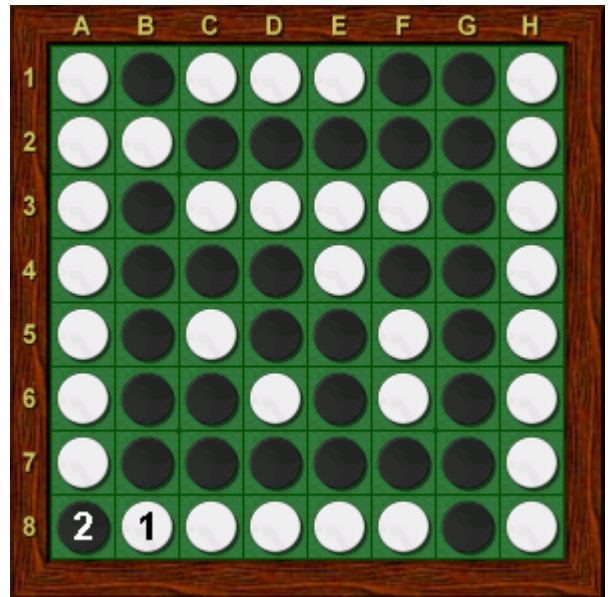

WHITE TO PLAY

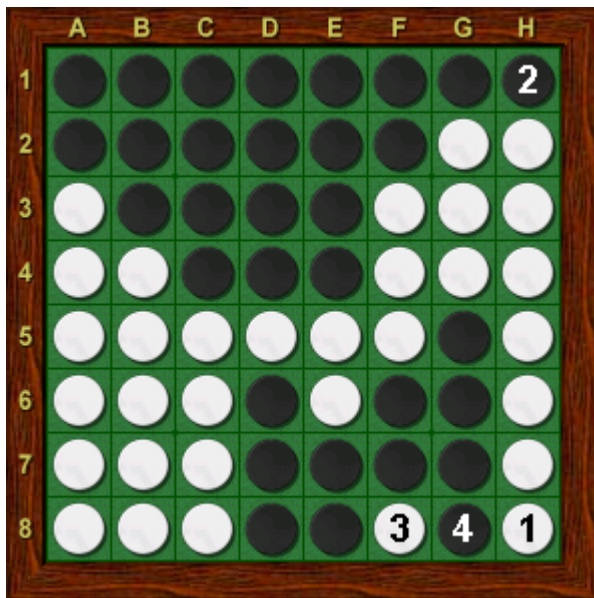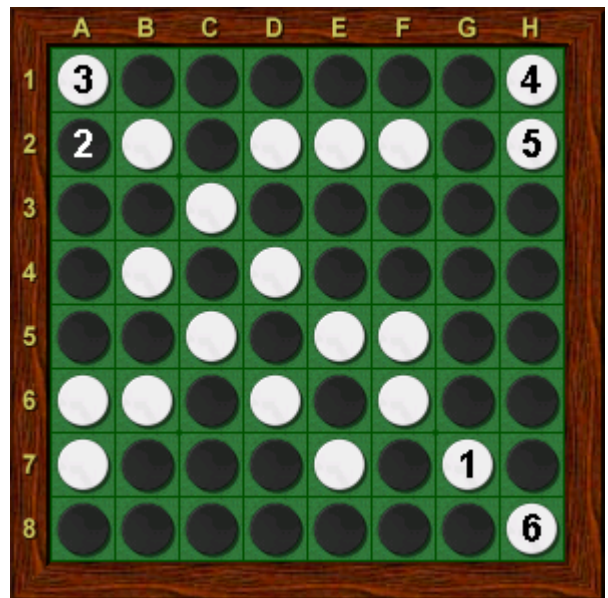**Answers:**

1.

BLACK WINS 33-31

2.

WHITE WINS 33-31

3.

WHITE WINS 33-31

4.

WHITE WINS 40-24