

TREASON GAME

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Abstract

Treason is a two player game played with the usual rules of the checkers game, but played in a different board, with the needed adaptations. Instead of squares we have triangles, and the initial position of the pieces is similar to the checkers game. The board has also in the main diagonal a free battle zone that allows the players to diversify the strategies until a level of complexity very high.

One of the main differences between this game and the checkers is that a player has, at least, from one triangle, three possibility lines to play.

The name of the game comes from the most important move that allows one player to promote pieces, common people, to Spies, behind enemy lines and to convert enemies to their side. This move gives a chance to Spies to sweep literally the enemy pieces by the back.

1. Setup Your Treason board

Treason is played on a board made up of triangles, very similar to the usual and very well known checkers game, but much richer in strategies.

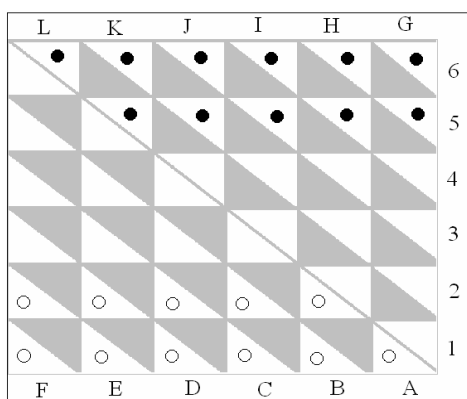


Figure 1: Treason board

Treason is a game for two players. Each player receives eleven, flat disk-like pieces which are placed on the white triangles in the manner indicated in the diagram at the left, figure 1. The darker coloured pieces are designated black, and the lighter colour is designated white. White always moves first. There is some advantage to moving first, but on the beginner level it is very slight.

While playing, you may record your game. To record a move, simply write down the triangle, the move is from and then the number of the triangle where the piece was moved. This is

convenient for discussing games and strategies.

The square board is divided in two triangles, the North, where we put the black pieces, and the South, where we put the white pieces. The system of identification in the North is made by columns G, H, ..., L and lines 6, 5, ..., 1. In the South the triangles are identified by columns A, B, ..., F and lines 6, 5, ..., 1. This system of identification assures us an unique representation of each white triangle. For example, we have G1 and A1 as identification for the triangles that are adjacent in the lower right corner of the board.

The line L6, K6, J6, I6, H6, G6 is called the promotion line for the white pieces. Each white piece that achieves to reach there is promoted to a higher level of movement and the piece is called White Spy.

The line A1, B1, C1, D1, E1, F1 is called the promotion line for the black pieces. Each black piece that achieves to reach there is promoted to a higher level of movement and the piece is called Black Spy.

2. General Rules for Treason

Now that you have set up the board, you are ready to begin play. First, determine who is to be "black". You can use any method for this you wish, flip a coin, alternate, etc. However, the most common method, in amateur play for board games, is for one of the players to take one colour piece in each hand and hold out his hands before him. The other player chooses a hand; the colour piece in that hand determines the colour with which he plays.

The objective is to eliminate all opposing pieces or to create a situation in which it is impossible for your opponent to make any move. Normally, the victory will be due to complete elimination.

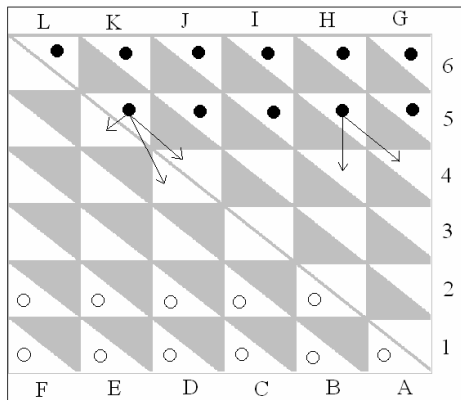


Figure 2: Allowed movements

White moves first and play proceeds alternately. The pieces may only move forward, to the left or to the right, forward left or forward right. There are two types of moves that can be made, *capturing moves* and *non-capturing moves*.

Non-capturing moves are simply moves from one triangle to another with common vertices or common sides. (Note that the black triangles are never used.) For example from position K5, the piece can go to E5 or D4 or J4; from position H5 the piece can go to H4 and G4 (see figure 2). The pieces cannot go to a triangle already occupied with another piece, or jump over other pieces.

The following tables show the allowed movements for all positions. The allowed move is represented by "1" and the not allowed is represented by "0". Exemplifying we can see "1" in the pair (A1, B1), it means that the movement is allowed.

	A1	B1	B2	C1	C2	C3	D1	D2	D3	D4	E1	E2	E3	E4	E5	F1	F2	F3	F4	F5	F6
A1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B1	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B2	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C1	0	0	1	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
C2	0	0	1	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
C3	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0
D1	0	0	0	1	0	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0
D2	0	0	0	0	1	0	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0
D3	0	0	0	0	0	1	0	0	0	1	0	0	1	1	0	0	0	0	0	0	0
D4	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0
E1	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	1	1	0	0	0	0
E2	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	1	1	0	0	0
E3	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	1	1	0	0
E4	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	1	1	0
E5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
F1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0
F2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0
F3	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0
F4	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0
F5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
F6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	G1	G2	G3	G4	G5	G6	H2	H3	H4	H5	H6	I3	I4	I5	I6	J4	J5	J6	K5	K6	L6
A1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B2	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0
C1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C3	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0
D1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0
E1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
E2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
E3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
E4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
E5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
F1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1

	A1	B1	B2	C1	C2	C3	D1	D2	D3	D4	E1	E2	E3	E4	E5	F1	F2	F3	F4	F5	F6
G1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
G2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
G3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
G4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
G5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
G6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H2	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I3	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
I4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
J4	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0
J5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
J6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
K5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
K6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
L6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1

	G1	G2	G3	G4	G5	G6	H2	H3	H4	H5	H6	I3	I4	I5	I6	J4	J5	J6	K5	K6	L6
G1	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
G2	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
G3	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
G4	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0
G5	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
G6	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
H2	0	1	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0
H3	0	0	1	0	0	0	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0
H4	0	0	0	1	0	0	0	0	0	1	0	0	1	1	0	0	0	0	0	0	0
H5	0	0	0	0	1	0	0	0	0	0	1	0	0	1	1	0	0	0	0	0	0
H6	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
I3	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	1	0	0	0	0	0
I4	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1	1	0	0	0	0
I5	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1	1	0	0	0
I6	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0
J4	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	0	0
J5	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	1	0
J6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0
K5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
K6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
L6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Capturing moves occur when a player "jumps" an opposing piece. This part is the main difference between Treason and the Checkers game. So, it is convenient to do a detailed explanation of this movement. Generically, the capture movement can only happen if the following conditions are satisfied:

- a) The opponent piece is in a triangle with a common vertices or common side, of the player piece.
- b) When we imagine a line between the initial position, and final position, after capture, the line of capture must have part of it inside the triangle, where the piece to capture is, and the final position must be empty. We mean with “part of a line” any part that is different of a point.

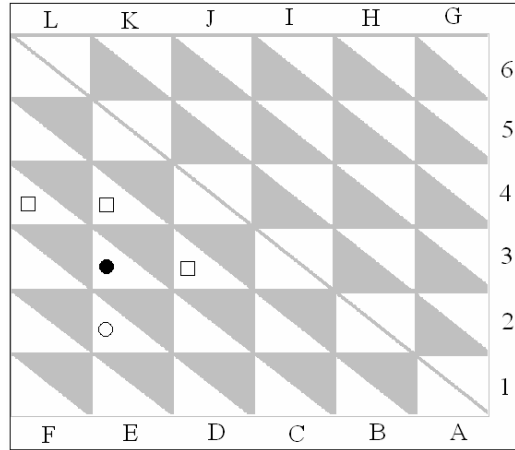


Figure 3: Capture, movement I.

Let’s start with movement I, in figure 3. White piece, in E2, can capture black piece, in E3, only if positions represented by squares in figure 3, D3, E4 and F4 are free. If so, the black piece is removed from the board and white player puts his piece in one of the three available positions.

In figure 4, we can see movement II. White piece, in F3, can capture black piece in F4, only if positions represented by squares E4 and F5 are empty. If so, the black piece is removed from the board and white player puts his piece in one of the two available positions.

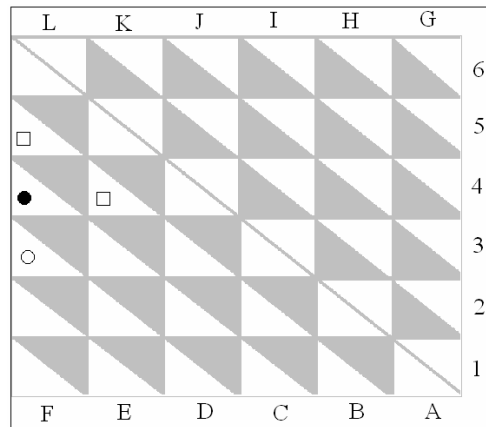


Figure 4: Capture, movement II

In figure 5, we can see movement III. White piece, in D4, can capture black piece in J4, only if positions represented by squares I4 and J5 are empty. If so, the black piece is removed from the board and white player puts his piece in one of the two available positions.

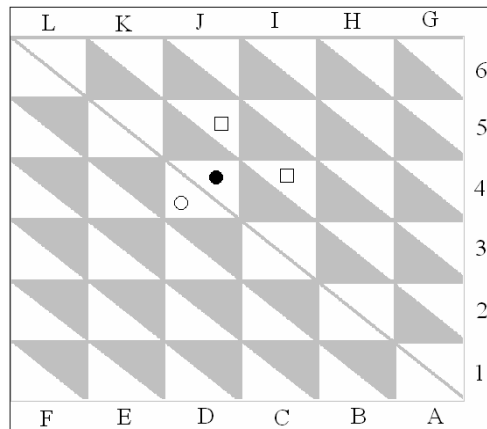


Figure 5: Capture, movement III

In figure 6, we can see movement IV. White piece, in D4, can capture black piece in E5, only if positions represented by squares L6, F6 and F5 are empty. If so, the black piece is removed from the board and white player puts his piece in one of the three available positions.

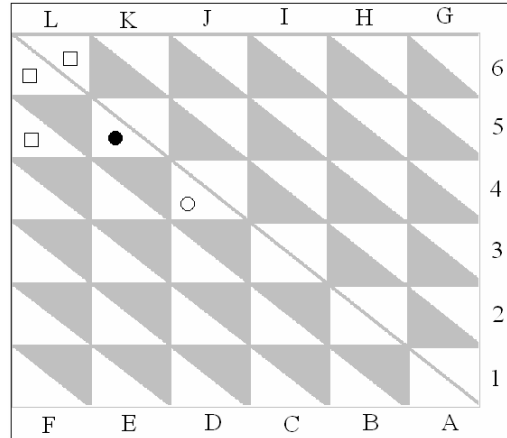


Figure 6: Capture, movement IV

In figure 7, we can see movement V. White piece, in D4, can capture black piece in K5, only if positions represented by squares L6, F6, K6 and J5 are empty. If so, the black piece is removed from the board and white player puts his piece in one of the four available positions.

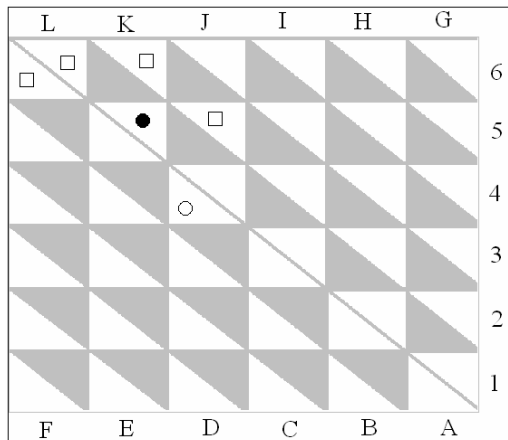


Figure 7: Capture, movement V

In figure 8, we can see movement VI. White piece, in I4, can capture black piece in J4, only if positions represented by squares K5, E5 and D4 are empty. If so, the black piece is removed from the board and white player puts his piece in one of the three available positions.

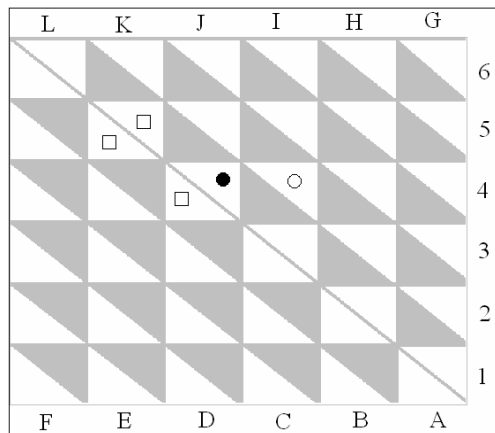


Figure 8: Capture, movement VI

In figure 9, we can see movement VII. White piece, in I4, can capture black piece in J5, only if positions represented by squares K6, J6 and K5 are empty. If so, the black piece is removed from the board and white player puts his piece in one of the four available positions.

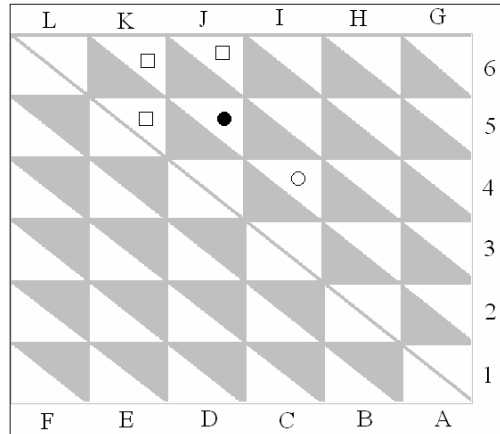


Figure 9: Capture, movement VII

There is a lot more of capture movements possible, but these examples are enough to understand the richness of strategies when we capture a piece in treason game. To finish this short explanation, we give an example, figure 10, which exemplifies that when the capture is done in different regions – lower main triangle and upper main triangle - it can be different in the final positions. In figure 10, the white piece captures the black piece and the squares represent the final positions available to the white piece.

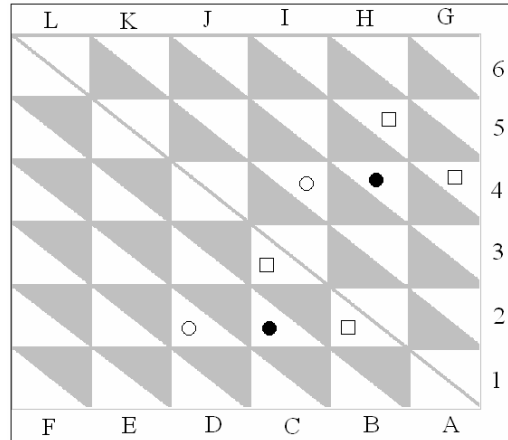


Figure 10: By-side capture

On a capturing move, a piece may make multiple jumps. If after a jump a player is in a position to make another jump then he may do so. This means that a player may make several jumps in succession, capturing several pieces on a single turn.

When a player is in a position to make a capturing move, he must make a capturing move. This is the forced move. When he has more than one capturing move to choose from he may take whichever move suits him.

3. The Spy

When a piece achieves the promotion line it is transformed in a Spy. To distinguish from the other pieces we put another piece over it. The Spy must follow the capture rules allowed to a regular piece, but it can move in any direction. The Spy may now also jump in either direction or even in both directions in one turn (if he makes multiple jumps).

The Spy also has the ability to transform other spies, or regular pieces, to their side. It means that a white Spy can transform regular black or black spies in white ones. This is done using the symmetry of the board, regarding the main diagonal of the square board. That is, if the White Spy is in one position of the board, and in the symmetric position of the board, regarding the main diagonal is occupied by a black piece then it becomes white.

For example, the White Spy in position I4, can transform the black piece in D3 in a white piece, because these two positions are symmetric regarding the square main diagonal. The White Spy stays in the same position, and the black piece is replaced by a white one.

The Spy is not obliged to do this movement, and the player can use this enhance only if he wants to do so.

Any transformation counts as one move.

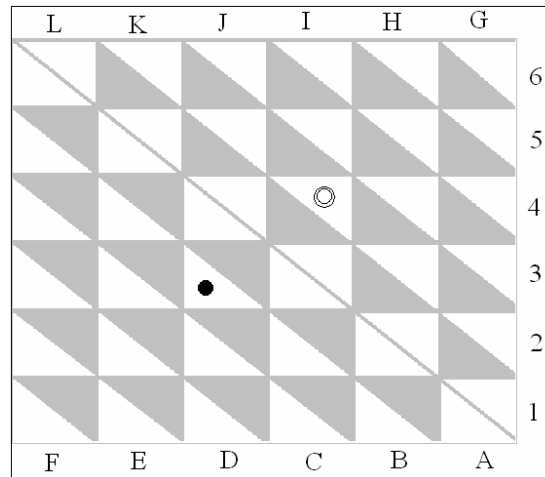


Figure 11: White Spy transforming Black

4. Treason Strategy

Treason is a straight-forward game in many ways. Yet, play can unfold in intricate layers. Every move opens untold possibilities and closes down untold more. Thus, it is well to keep a few strategies in mind when playing, even when it is just for fun.

First, always keep in mind the possibility of using the forced capture rule to manoeuvre your opponent into a position where he gives up two pieces for one of your own. Often a one piece advantage can make all the difference in the end game.

Second, always try to keep the lanes to the promotion row blocked to your opponent. Once either side gets a Spy, any piece in the open is highly vulnerable.

Third, move between your own pieces and your opponent in order to move adjacent to an opposing piece without loss.

Fourth, use the transformation move only if you gain an important position in the board, and the piece cannot be captured by your opponent.

Of course, these are elementary ideas to the player. To move beyond the beginner stage, this game requires a more detailed study. We hope in the future to contribute more with a deep study of the mathematics involved here, but our goal, for now, was only to present the game, and we believe this material is enough to start. Have fun with our game!

