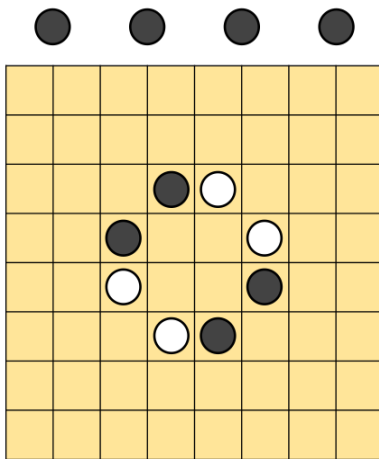


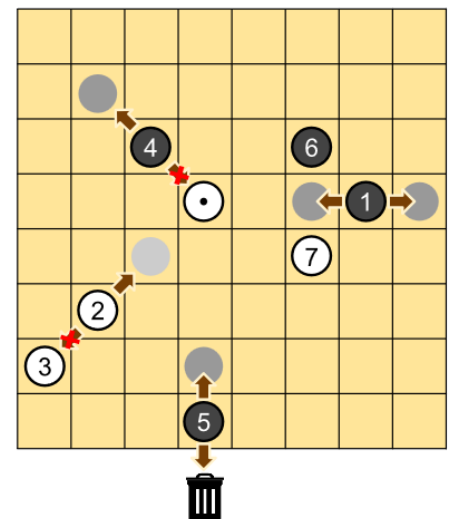
The Teaching Rules for Kalamala

NB. While the moves demonstrated below are legal, they will not be the best moves possible.



The game of Kalamala is played between two players, each represented by their own colour (black and white are used in this guide). It is played on an (8x8) 64-square board, and each player needs 8 identical pieces in their colour. The players decide who gets to go first, and then play alternates between them. The board starts with four of each player's pieces placed on the board in the pattern shown on the left, while the other four are kept off the board for later.

Pieces cannot move by themselves, instead the basics of a move are ***'to use your pieces to push or pull others on the board'***. This is illustrated in the diagram to the right. It shows a possible board layout in the middle of white's turn. Of the four white pieces on the board, white has chosen the one which we've marked with a dot to be the piece that does the pushing or pulling for this turn. The diagram shows all the possible moves white could make using that piece. While white could use any other one of their pieces (Piece 2, 3, or 7) to do the pushing or pulling, this one has the most options for this turn. Going through the other pieces, we see how white can move them:



Piece 1: White can push or pull this piece one space, as it is directly in line with it horizontally and there is nothing in the way. This shows how basic pushing and pulling works.

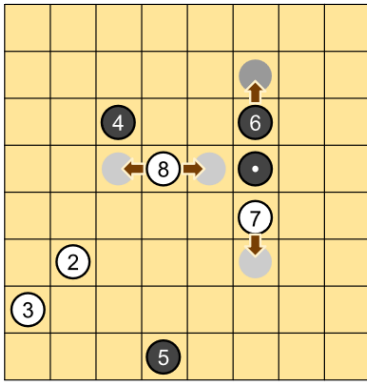
Piece 2: White can pull this piece diagonally one space, as it is directly in line, but it cannot push it as there is already a piece (Piece 3) occupying that space. This also shows that white is allowed to push its own pieces as well as its opponent's.

Piece 3: White cannot push or pull this piece because it has not got direct access to it (Piece 2 is blocking the way).

Piece 4: White can push this piece diagonally, but not pull it, because it is already occupying the space that piece 4 would be pulled into.

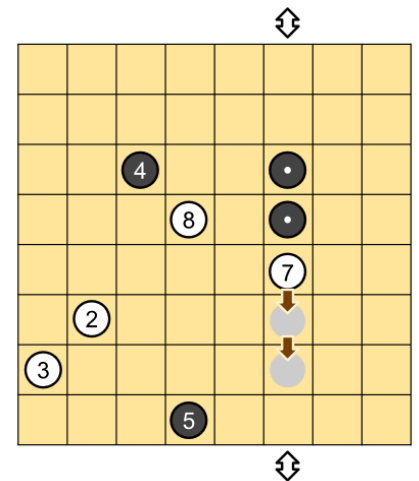
Piece 5: White can push or pull this piece one space vertically. If it decides to push piece 5, then it will end up off the board. This removes piece 5 from play, and pushing off the edge is the primary way of weakening the opponent by reducing their numbers.

Pieces 6 and 7: White cannot affect these pieces as they are not directly in line either diagonally, horizontally or vertically.

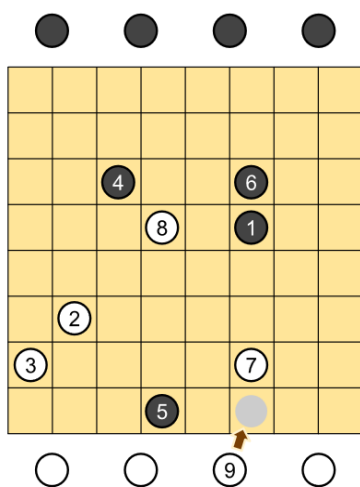


Let's say that white decides to pull Piece 1 by one space as their move. Now, it is black's turn to select a piece to do the pulling or pushing, and then pull or push another piece. For example, in the picture to the left they choose the old Piece 1 to do the pulling or pushing (note that I haven't explicitly marked illegal moves such as pulling Piece 6 or 7 like I did last time).

However, black decides that they don't want to use that piece as the one to do the pushing and pulling for that turn. Instead, black notices that they have two pieces lined up, and would rather use those two instead. The reason for this is that Kalamala allows pieces that are lined up to join together and push or pull further. The diagram to the right shows how this works: the two pushing pieces are able to push Piece 7 two spaces. Notice that they cannot act together on any other pieces, because when acting together all the pieces have to line up - therefore any pieces that aren't in the column indicated by the up/down arrows won't be moved. Pushing and pulling in this way works both diagonally and horizontally, as long as all the pieces are adjacent and of the same colour.



So, on their next turn, white could use their Pieces 2 and 3 to push Piece 8.



Alternatively, there is actually another type of turn white could make. Remember the four pieces each player set aside at the beginning? In Kalamala, instead of making push or a pull, you can choose to place one of your four pieces into any empty square. For example, white makes one of their four placements in the diagram to the left, and it is now black's turn (note that I haven't shown all possibilities here, as there are far too many).

Following this, on black's turn, it could use Pieces 1 and 6 to push white's Pieces 7 and 9. Because it is two pushing two, each piece is only pushed one space, such that Piece 7 ends up where Piece 9 was. Nevertheless, this is enough to push Piece 9 off the board, and so Piece 9 is removed from play. Look in the table to the right to find out how far the pieces can be moved depending on the number of pieces doing the push/pull (dark green) and the number of pieces being moved (light green). In general, divide the former by the latter and round down.

	1	2	3	4
1	1	0	0	0
2	2	1	0	0
3	3	1	1	0
4	4	2	1	1