Kazura

An abstract game for 2 players by Kashio Fujii

#Components

- Black and White stones
- A square board of 13 × 13 points (a 13×13 Go board and stones work too; 9×9 and 19×19 boards can be used as well)

#Definitions

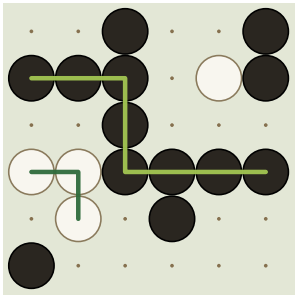
Adjacent Two points next to each other across or down. Diagonal points are not adjacent.

Group A collection of adjacent stones of the same color. A single stone that is not adjacent to any other stone is also considered a group.

Loop A chain of stones of one group that you can follow from stone to adjacent stone, never visiting a stone twice, back to where you started. The smallest loop is four stones in a 2 × 2 square.

Path A sequence of stones of one group, each adjacent to the next, that visits no stone twice. Since a group has no loops, there is exactly one path between any two of its stones.

Length The number of stones on the longest path in a group. A stone adjacent to no other stone has length 1.



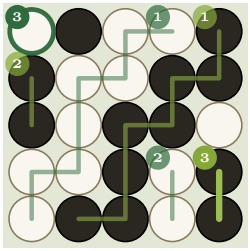
Black has three groups, of lengths 8, 2 and 1; White has two, of lengths 3 and 1. The coloured lines are each side's longest path. The two short branches of Black's large group are not on it.

#Setup

- The board starts empty.
- Choose your color. Black plays first.

#End of the Game

- The game ends when neither player can place a stone.
- Upon game end, list each player's group lengths from longest to shortest and compare them one by one. At the first point where the lengths differ, the player with the **longer group** wins.
- If one player runs out of groups first, the player who still has groups left wins. If all lengths are the same, the game is a draw.
- A player may also resign at any time, and loses. Once one player's longest group is longer than any group the other can still make, the result can no longer change, and resigning is the natural thing to do.



A finished game (5 × 5 board). Black's lengths are 8, 2, 2, 1 and White's 8, 2, 1, 1. The first and second are level, and the third, 2 against 1, wins for Black. The numbers give the order of comparison; the bold lines mark the deciding groups.

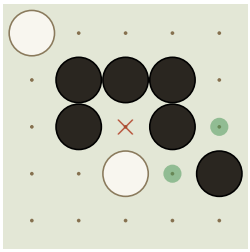
#Swap (Pie Rule)

- After Black's first move, White may choose to **swap**, once. The players trade colors; the board stays as it is, and White (the player who made the first move) is to move.
- If White does not swap, White simply places a stone.
- So Black avoids a first move that is too strong (it would be swapped) and looks for one that leaves it content either way.

#On Your Turn

On your turn, do the following:

- **Place a stone**
  Place one stone of your color on any empty point, but **not on a point that would close a loop of your own stones**. That is, you may not place on a point adjacent to two or more of your stones that belong to the same group. You may place next to stones of different groups (those groups are then joined).
- **Nowhere to place**
  If you cannot place anywhere, your turn is skipped and your opponent places again. If you can place, you must.

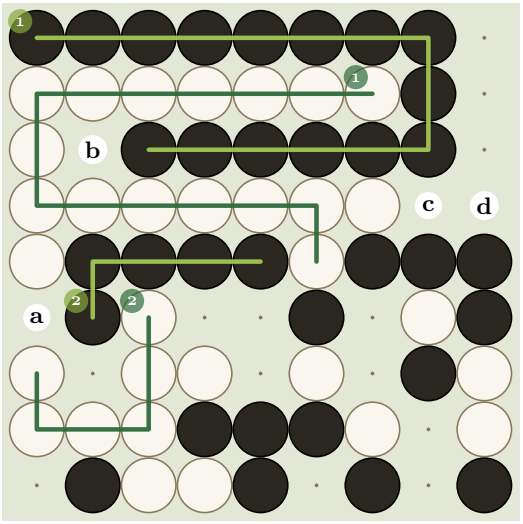


Placing a Black stone: the point marked × would close a loop of Black stones, so it is not allowed. The points with green dots are allowed (they join two Black groups).

#Example of Play

The position below is from the end of a game on a 9 × 9 board, with Black to move. The numbered lines are the longest paths of each color's first and second groups. Black's lengths are 15, 5, 4, 3, … and White's 15, 6, 2, 1, …: the first groups are level, and White leads the second, 6 to 5. White cannot place at b (it would close a White loop).

In fact Black has only one winning move here.



Black to move. The letters a–d name points used in the text.

Move 1 (Black)

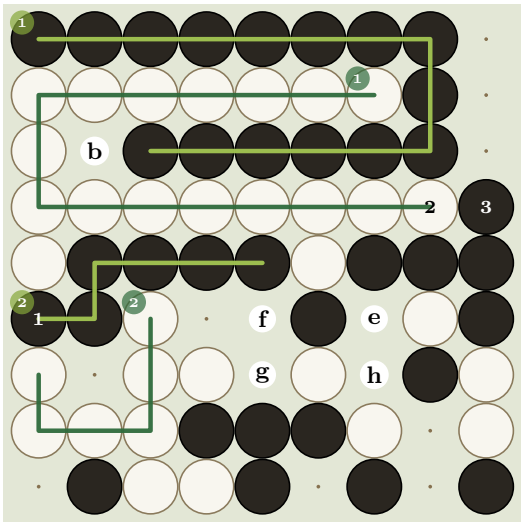
The answer is a.

The natural moves would be b, lengthening Black's first group to 16, or c, blocking the tip of White's first group. Both lose to White placing at a. Point a joins White's first and second groups, and White's first group jumps to 17.

Black's a stops this join and lengthens Black's own second group to 6. Since White cannot place at b, Black can take it at any time; there is no hurry.

Moves 2 (White) and 3 (Black)

White places at c, making the first group 16. White placing next at d would make it 17. Black's only winning move is d, and White's first group stops at 16.



After move 3. The numbers give the order of the moves. White 16, 6, 2, 1; Black 15, 6, 4, 3.

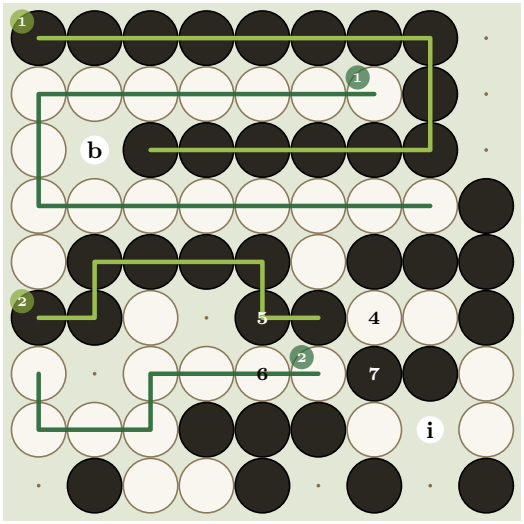
Moves 4 (White) and 5 (Black)

White places at e, aiming at g and h. A White stone at g would make the second group 8, and another at h would make it 11.

Black places at f, making Black's second group 8 (g or h would also win).

Moves 6 (White) and 7 (Black)

White places at g, drawing level at 8 in the second groups. White placing next at h would make 11, so Black must place at h; it is Black's only winning move.



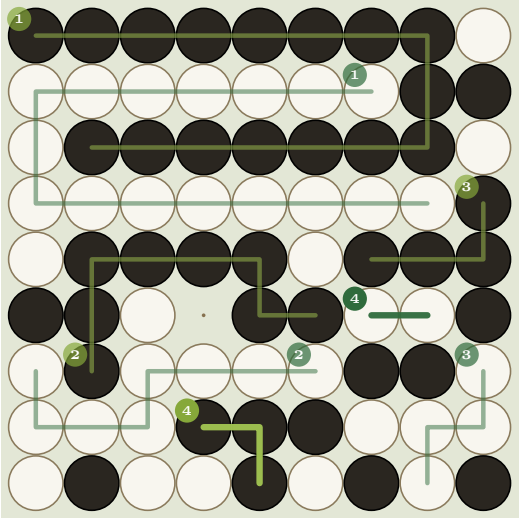
After move 7. Black 15, 8, 4, 3; White 16, 8, 2, 2.

To the end

From here the players fill in the remaining points. At some point Black places at b, making the first group 16; White cannot place there, so Black could keep it for last. White places at i, making the third group 4.

Eventually Black has nowhere left to place; White fills

the last points, and when neither can place, the game ends. Black has 16, 8, 4, 3 and White 16, 8, 4, 2. The first three are level, and the fourth, 3 against 2, wins for Black.



The final position. The numbers give the order of comparison; the bold lines mark the deciding fourth groups.

Black's a lengthened Black's own group while cutting White's join. And keeping b, a point White could never take, for the end gave Black the time to get to the vital points first.