

# Concord Rules

## Why Concord Rules for the Game of Go?

Concord Rules combine the best features of Japanese/Korean, Chinese, AGA and Taiwan rules. Concord Rules achieve these three goals:

- **Every point matters.** Small endgame mistakes can alter the final score by a single point. (Similar to Japanese/Korean rules, unlike AGA and Chinese rules.)
- **You can use both territory and area counting methods.** Both methods always give the same game result. (Similar to AGA rules. Unlike Chinese and Japanese/Korean rules.)
- **Just play it out.** Games can always continue until all dead stones are captured without changing the score. (Similar to Chinese and AGA rules, unlike Japanese/Korean rules.)

# Concord Rules for Users of Popular Rulesets

## Differences from Japanese/Korean Rules

- **Every move uses one stone, even pass.** In Concord Rules, a pass requires placing a “pass stone” in the opponent’s prisoner bowl. This gives the opponent one point, but since all games typically end with two passes, this does not change the result. Pass stones are used in the USA, France and UK (AGA rules).
- **Just play it out.** When scoring is unclear, Concord Rules allow games to continue until all dead stones are captured without changing the score, even in complex Life/Death, Seki & Ko situations.
- **Seki eyes are points.** Every surrounded point counts, even in seki.
- **Last pass.** The first and last pass play in the game must be played by a different player. Rare example where that matters: ..., B pass, W threat, B answer, W pass, B pass, **W pass**.

## Differences from Chinese Rules

- **First Pass is Valuable.** White (but not Black) gets one extra point if White made the game’s very first pass. This makes the first pass worth half as much as dame. This removes the one-point difference between area and territory rules that happens in about half of even games. This is similar to Taiwan rules.
- **Handicap Compensation.** White gains one point for each handicap stone Black receives beyond the first.

## Differences from AGA Rules

- **Game typically ends with two passes.** In AGA rules, White always makes the last pass, causing three passes in half of the games. In Concord, the game’s final pass must be made by a different player than whoever made the game’s very first pass.
- **Area Counting Adjustment.** When using area counting, White (but not Black) gets an extra point if White made the game’s very first pass. This makes the first pass half as valuable as dame.

## The Rules

- **Setup.** Go is played between Black and White using black and white stones, two prisoner containers and a board. Before starting, players agree on:
  - Player colors
  - Board used
  - Komi (point compensation for White)
  - Handicap (if any)
  - Counting method (Territory or Area)
- **Play.** Players alternate plays. Black plays first.
  - **Board.** The board is a grid of intersecting lines. Intersections are initially empty.
  - **A play.** A play is either a *pass play* or a *board play*. A play always uses one stone of the player's color.
  - **Pass play.** The player places the stone in the opponent's prisoner container. This is a "pass stone".
  - **Liberty.** A stone has a liberty if there is a path along board lines to an empty intersection through other intersections with stones of the same color.
  - **Board play.** The player places the stone on an empty intersection and captures all opponent stones that have no liberties. Captured stones are moved from the board to the player's prisoner container.
  - **Suicide is illegal.** A play is illegal if the stone just played has no liberties after capturing opponent stones.
  - **Repetition is illegal.** A board play is illegal if it recreates the board with the same player to move (situational superko).
  - **Illegal play handling.** If a player makes an illegal play and the opponent challenges it before their next move, the illegal play must be taken back and the player must make a pass play. The opponent may allow the player to choose any legal play instead of the required pass play.
- **Play end.** Play ends after two passes in a row. However, if the Last pass rule (see below) requires a third pass in a row, play continues to include it.
  - **Last pass.** The first and last pass play in the game must be played by a different player. In rare cases, three passes at the end might be needed, for example: ..., B pass, W threat, B answer, W pass, B pass, W pass.
  - **Dead Stone Removal by Agreement.** After play ends, players try to agree on which stones left on the board are "dead" and can be removed. If they agree, each player removes the opponent's dead stones and adds them to their own prisoner container, then scoring begins. If the players cannot agree, play resumes.
  - **Dispute resolution.** If no agreement is reached, each player can say "Let's play until all dead stones are captured" (or similar). In that case play resumes, and players should

try to capture all opponent stones they can with board plays. When play ends again (as defined in 'Play end'), all stones left on the board are considered alive. There is no Dead Stone Removal by Agreement step. Stones stay on the board as they are for scoring.

- **Scoring.** Players calculate scores using the agreed counting method. White adds komi. The player with more points wins.
  - **Territory intersection.** An empty intersection belongs to a player's territory if there is no path from it to an opponent stone, going along board lines through other empty intersections.
  - **Territory counting.** Player's score = number of territory intersections + number of prisoners in their container.
  - **Area counting.** Player's score = number of their stones on board + number of territory intersections. White gets an extra point if White played the very first pass in the game. White gets an extra point for every handicap stone except the first (e.g., if Black has 3 handicap stones, White gets 2 points).

## Discussion and commentary

### Historical Context: Learning from AGA Rules

The AGA rules were created with similar goals to unify counting methods. At first, they added pass stones without the last pass rule, which caused pass fights. To fix these pass fights, they had to add the “White passes last” rule, which sometimes requires 3 passes. This stopped the pass fights but created only 2-point resolution scoring.

Concord Rules achieve high 1-point resolution by using a different last pass rule, which also follows the tradition of 2 passes ending the game.

### Ikeda rules

Ikeda [wrote a book](#) looking for ideal Go rules for international tournaments. [Ikeda’s preferred Territory rules I](#) almost always give the same result as his area rules III - “provided no extra passes are made before the end of competitive play”. Concord rules improve on these by making territory and area counting always give the same result, even when extra passes are made.

### Taiwan rules

[Taiwan rules](#) are Concord rules using only area counting.

### Two Button Go

[Two Button Go](#) rules with territory counting are the same as Concord rules with territory counting. Concord rules improve on Two Button Go by not requiring additional physical buttons.

## Equivalence of Area and Territory counting

This section shows the proof that the two counting methods give equivalent results under Concord Rules.

### Definitions of variables

- $C_B, C_W$  - number of stones **Captured** by Black and White respectively
- $B_B, B_W$  - number of Black and White stones left on **Board**, not counting handicap
- $H_1$  - number of handicap stones minus 1, i.e., number of extra stones placed with the first Black move. In an even game  $H_1 = 0$
- $P_B, P_W$  - number of **Passes** by Black and White
- $E_B, E_W$  - number of **Empty** intersections surrounded by Black and White
- $M_B, M_W$  - number of **Moves** (board plays and passes) made by Black and White. So  $M_B = B_B + C_B + P_B$  and  $M_W = B_W + C_W + P_W$
- $M_\Delta = M_B - M_W$  - difference in number of moves, either 0 or 1.  
It equals 1 if Black made the last move (pass).  
It equals 1 if White made the very first pass.

$$\text{Area score} = (E_B + (B_B + H_1)) - (E_W + B_W + \text{komi} + M_\Delta + H_1) \quad (1)$$

$$= (E_B + B_B) - (E_W + B_W + \text{komi} + M_\Delta) \quad (2)$$

$$= (E_B + B_B - M_B) - (E_W + B_W - M_W) - \text{komi} \quad (3)$$

$$= (E_B + B_B - B_B - C_B - P_B) - (E_W + B_W - B_W - C_W - P_W) - \text{komi} \quad (4)$$

$$= (E_B - C_B - P_B) - (E_W - C_W - P_W) - \text{komi} \quad (5)$$

$$= \text{Territory score} \quad (6)$$