

# Aporia

*Aporia* (Ancient Greek: ἀπορία, “an impasse, difficulty of passing, lack of resources, puzzlement”) denotes in philosophy a philosophical puzzle or a state of puzzlement.

## 1. Object

*Aporia* is a two-player strategy game played on a two-by-two game board. The game board consists of four large squares, or *platforms*, and each is further subdivided into four playable corners, or *nodes*.

Players alternate turns, although both players control all eight pieces. On each player's turn, that player may move either a black or white piece.

*Aporia* is therefore a game of both cooperation and competition, where players work together to beat each other.

## 2. Setup

Each player sits across from each other on opposite ends of the game board. The black pieces should be arranged on the innermost nodes on each platform, while the white pieces should be arranged on the outermost corner nodes on each platform. Players should decide who goes first, with the loser of a previous round of play being entitled to choose the opening player on the subsequent round of play.

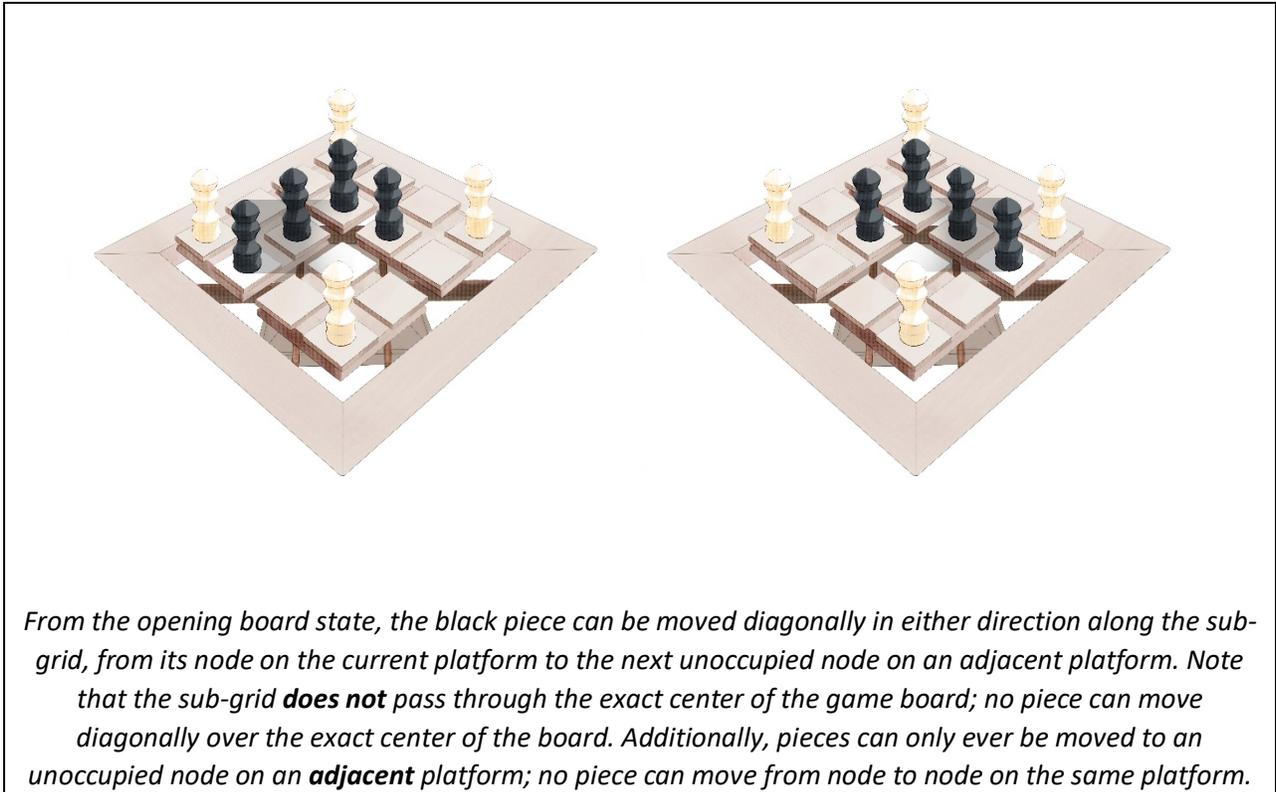


*Opening setup: the four white pieces are placed on the four outermost corner nodes of each platform, and the four black pieces are placed on the innermost corner nodes of each platform.*

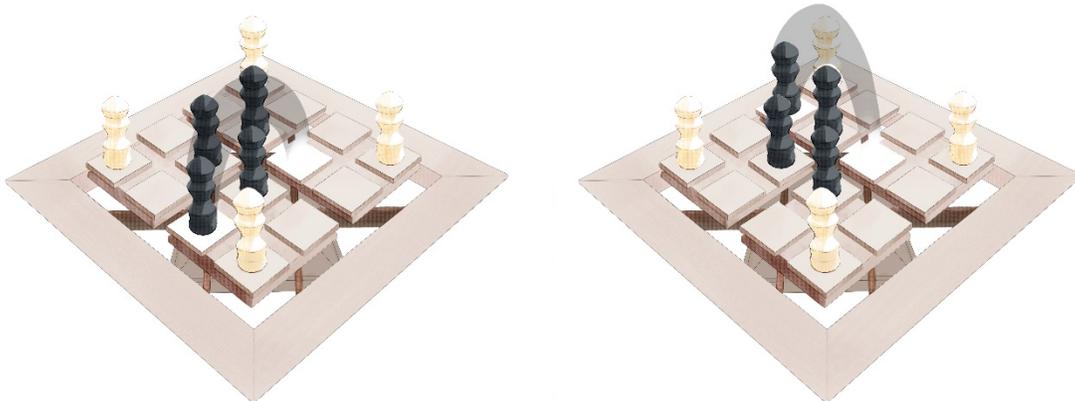
### 3. Movement

On each turn, a player may choose to move either a white or black piece, since both players control all eight pieces. There are two rules guiding how pieces may be moved, and a sub-grid built below the platforms can help players direct their movements from node to node and platform to platform.

**Rule #1: Pieces can move diagonally along the board's sub-grid to the next unoccupied node on an adjacent platform.**



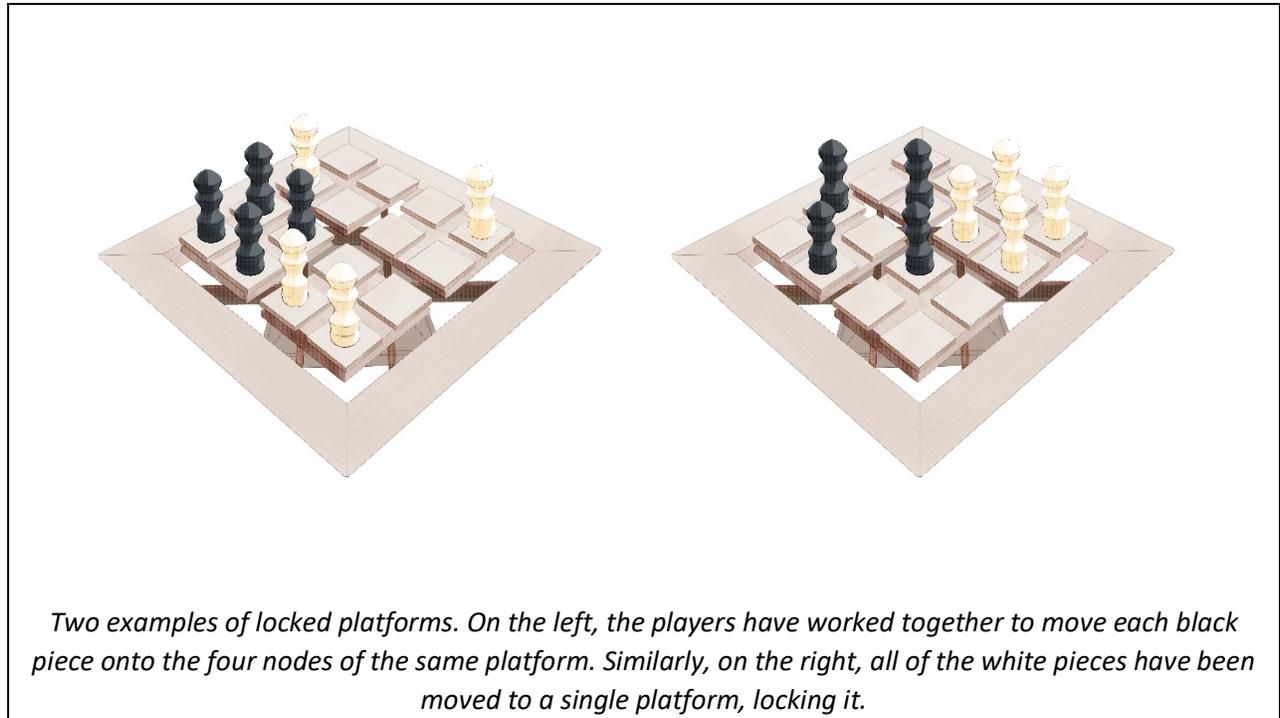
**Rule #2: Pieces can jump over other pieces from one platform to an adjacent platform—but only along the horizontal or vertical axis of the game board, never diagonally.**



*From the opening board state, the black piece can jump another piece to move to the next unoccupied node on an adjacent platform, but it can only do so by moving along the vertical or horizontal axis of the game board.*

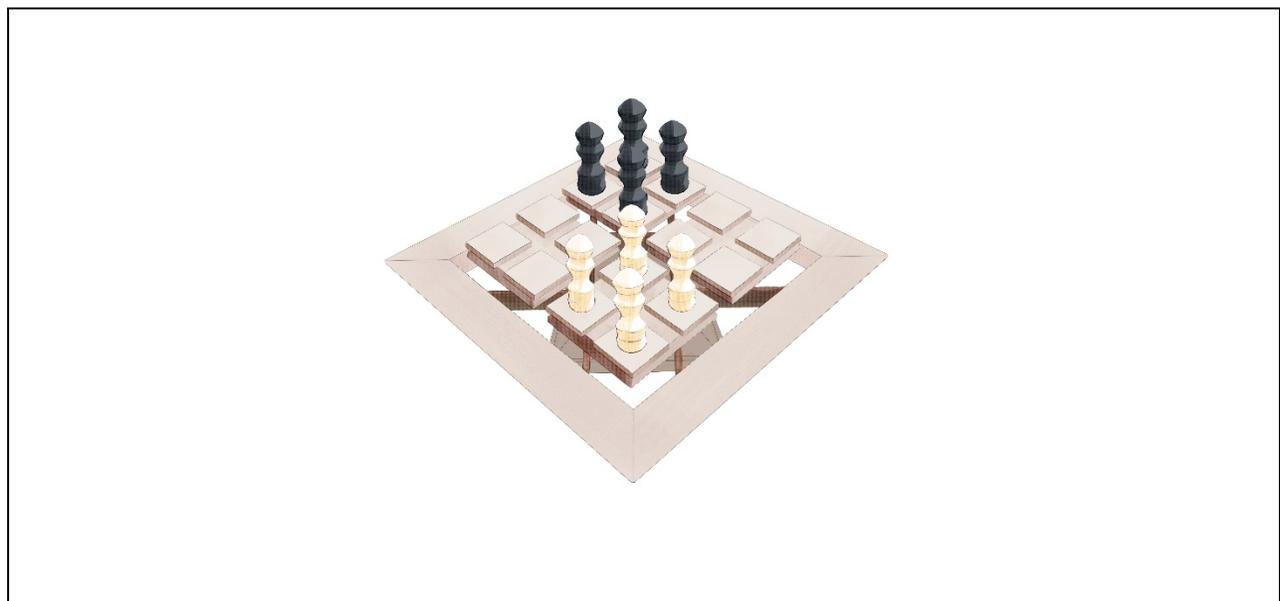
## 4. Winning the Game

Two steps must be taken to win the game. First, the players must work together to *lock* a platform by moving either all four white pieces or all four black pieces onto the four nodes of the same platform.



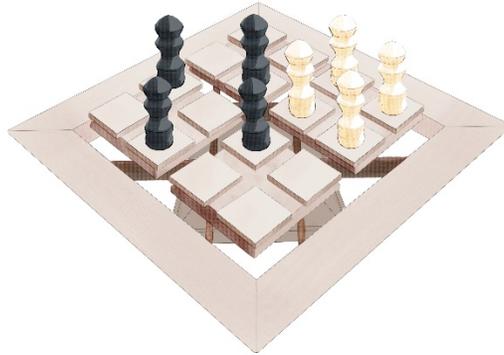
Second, once the first platform is locked, the pieces on that platform may no longer be moved for the duration of the game. There are then two ways for a player to win:

- 1. Lock a second platform using the remaining unlocked, playable pieces.**



*An example of locking a second platform. Here, the winner is the player whose final move resulted in locking the second platform.*

**2. Prevent or block your opponent from making a valid move.**



*There are no valid moves on this game board. The white pieces are locked and cannot be moved, and no valid moves are available for the black pieces: no black piece can move diagonally to an adjacent unoccupied node on a platform, and no black piece can jump another piece along the horizontal or vertical axis of the board.*

*If a player cannot make a valid move, then he or she loses the game.*

## 5. Gameplay Modes, Scoring, and Repetition

Before starting a game of *Aporia*, players should decide on one of two game modes: beginner or advanced. Beginner play will familiarize players with the basic rules of the game, while advanced play will challenge each player's memory, attention, and foresight.

### Beginner Play

For beginner play, players can decide on playing either a single round of *Aporia*, or a best-of-three or best-of-five series.

In similar strategy games like chess, *repetition* occurs when a player moves a piece back to the same position as it was on the previous turn, and for beginner play in *Aporia*, there are two prohibitions on repetition:

- Prohibition #1: A piece cannot be moved back to the same node as it was on the immediately preceding turn.
- Prohibition #2: A player cannot move a piece back to the same node as it was on his or her own previous turn.

Because repetition is disallowed in beginner play, if no moves are available to a player, he or she loses the game. Players may track movements by keeping notes in beginner play, if they desire.

### Advanced Play

Unlike beginner play, advanced play uses a scoring system, and players should decide on playing a match of three, five, seven, or ten rounds. No note-taking is allowed during play. The winner of the match is the player who accumulates the most points after the rounds have been completed (or until one player is mathematically eliminated; e.g., if a player is up by 4 points with only one round left to play in the match, that player is the winner since the opponent will not be able to score enough points on the final round).

- If a player wins a round by locking a second platform, he or she earns 3 points.
- If a player wins a round by leaving the opponent with no valid moves, he or she earns 2 points.

For advanced play, repetition is allowed before the first platform is locked, but at a cost. If a player *intentionally or unintentionally* moves a piece back to the same node as it was on the previous turn, or if that player moves a piece back to the same node as it was on his or her last turn, then the opposing player may choose to *challenge* that play.

If the challenge is successful—that is, a player can show that the opponent engaged in repetition—then the challenger wins the round. If the challenge is unsuccessful—that is, the challenger was incorrect—then the opponent wins the round.

- If a player wins a round due to a challenge, he or she earns 1 point.

Once players have worked together to lock a platform, however, the two prohibitions on repetition described above will come into effect.