ERGO

Do you exist? I think therefore I am? From Socrates to Descartes, the question has dogged mankind. Now with *Ergo* you can prove your existence while disproving the existence of your friends!
I play therefore I am!

CONTENTS

A deck of *Ergo* contains everything you need to prove you exist.
4 of each Variable Card (A, B, C and D)
4 of each Operator Card (AND, OR, THEN)
8 NOT Cards
6 Parenthesis Cards
3 Fallacy Cards
3 Justification Cards
1 Tabula Rasa Card
1 Revolution Card
2 Wild Cards (1 Variable wild and 1 Operator wild)
3 Ergo Cards

SET-UP

Assign one of 4 variables to each player: A, B, C or D. Players may wish to write down their assigned variable so they don't forget it during game play. Shuffle all cards, then deal five cards to each player. You're ready to begin!

HOW TO PLAY ERGO

Ergo is played in a series of rounds, each consisting of a series of turns.

THE ROUND

During each round, players attempt to collectively build a Proof that proves their existence, while disproving the existence of any other player.

When a Proof is stopped, the round ends and the players score points as appropriate. All cards are collected and then shuffled; another five cards are dealt to each player and another round begins. The rounds continue until a single player achieves enough points to secure victory over the entire game (see *Ending a Round* and *Winning the Game*, respectively, below).

A TURN

At the beginning of all rounds, the youngest player starts a turn. Each player, in clockwise order, then takes a turn, following the same steps until the round stops.

On each turn a player must always draw two cards and then play two cards. If the player does not want to play a card(s) to the Proof—or if the player cannot play a card(s) to the Proof—the player must discard.

At the end of each player's turn, they will always have five cards in their hand.

Building The Proof

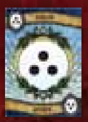
When playing cards to the Proof, players must abide by the following rules (see *Card Rules*, at right, for additional rules that pertain to specific card types):

- The Proof can only have four Premises (or lines) of cards. If four Premises are already in the Proof, then any cards played must be to one of the four Premises.
- Operator Cards (AND, OR, THEN) and Variable Cards (A, B, C, D) cannot be placed directly adjacent to a card of the same type.
- Operator Cards (AND, OR, THEN) must connect two Variable Cards.
- Parenthesis Cards may only be played in pairs (an open and close parenthesis).
- Cards may be inserted between existing cards of the expanding Proof as long as all the rules above are maintained.

CORRECT PLACEMENT

INCORRECT PLACEMENT

ENDING A ROUND



When someone plays an Ergo Card, or when the last card is drawn from the draw pile and that player's turn ends, the Proof stops. However, an Ergo Card cannot be played until there is at least one of each Variable Card somewhere in the Proof.

Follow the rules of logic (see other side of rules sheet) to determine which variables logically follow from the Proof. A player whose variable is proven true is awarded 1 point for every card in the Proof. If there are multiple players with true variables, then each proven player is awarded the maximum points.

NOTE: If there is a paradox (a contradiction) within the Proof, then no points are awarded to any player for the round. A paradox exists when any variable is both proven and disproven in the Proof to:

WINNING THE GAME

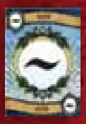
The first player to earn 50 points wins.

GAME TERMS

Proof: The area where cards are played in an effort to prove (or disprove) the existence of a given variable. This area may consist of four rows of cards called Premises (lines); does not include cards played directly against a player, which are placed in front of that player.
Premises (Lines): One of four rows on the playing area (the Proof) where cards are placed.
Variable (Variable Card): One of four Variable Cards—A, B, C or D—that represent each of the four players in a game.
Operator (Operator Card): One of three Operator Cards—AND, OR, THEN.
Tabula Rasa: Clean Slate; remove any card from the Proof.
Syntax Rules: This refers to the rules for how cards may be played to the Proof (see *Building The Proof* , at left below).

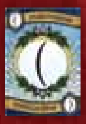
CARD RULES

The following additional rules apply for the following cards.



NOT

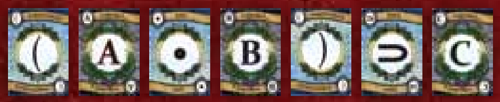
Place a NOT Card in front of an existing Variable Card to negate (disprove) it. NOT can only be placed in front of variables or an opening parenthesis and applies only to the variable immediately following. Double negatives (two NOT Cards) can only be used with parentheses.



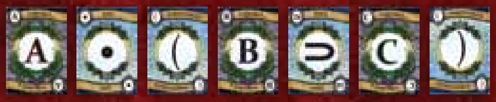
PARENTHESES

Parentheses must be played simultaneously, and cannot be left unpaired. When used wisely, they can effectively change the meaning of a given premise, and they also allow for double negatives.

is the same as



but is different from



TABULA RASA

To play this card, remove a card from the existing Proof and place it on the bottom of the draw pile. Any card may be removed, but at the end of the turn all syntax rules must be maintained (see *Building The Proof*, at left).

Discard the Tabula Rasa Card after playing it; it is not returned to the draw pile and cannot be put back into play until the next round.

REVOLUTION

To play this card, take two cards of the same type (Proof Operator or Variable) and switch their places within the Proof. Discard the Revolution Card after playing it; it is not returned to the draw pile and cannot be put back into play until the next round.

WILD

Play this card in the place of the card you need. The Variable Card can be played as an A, B, C or D. The Operator Card can be played as a NOT, AND, OR, or IF/THEN. Both cards should be played with the desired variable on top.

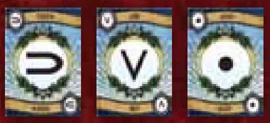
Wild Cards may also be used as Proof Cards and Ergo Cards, and so can end a round.

FALLACY AND JUSTIFICATION

The Fallacy Card is played on another player by placing it in front of them. When a Fallacy has been played on someone, that player cannot add to the Proof for three turns, or until they play a Justification Card on top of it to counter the effects. For ease of play, simply turn the Fallacy Card one side to the right for each of those three turns; on the player's fourth turn, the card would be rotated back to its normal position, which means it is discarded (placed at the bottom of the draw pile). The player then takes his turn as normal.

If a player discards a Fallacy Card after three turns, another Fallacy Card may be played on that player this round. However, once a player has played a Justification Card over a Fallacy Card, that player cannot be the target of another Fallacy Card this round.

Wild Cards may also be used as a Justification Card (but never a Fallacy Card).

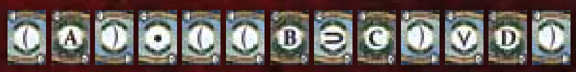


OPERATOR CARDS: THE ORDER OF OPERATIONS

Operator Cards are THEN, OR, and AND. The THEN card has the strongest cohesive connection, followed by OR and then AND.

The premise

should read



unless parentheses are used

SAMPLE ROUND

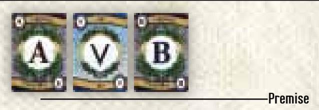
The following is a sample round; Player 1 is A, Player 2 is B, Player 3 is C, and no one is D.

TURN 1

Players are dealt their five cards. Player 1 draws two cards. He then plays an A and discards a parenthesis.

TURN 2

Player 2 draws two cards and plays an OR and a B.



TURN 3

Player 3 draws two cards and then adds a new Premise (line) by laying down a NOT and a B.

TURN 4

Player 1 draws two cards and then adds another Premise (line) laying down a NOT and a C.

TURN 5

Player 2 draws two cards and then plays a THEN and a C.

TURN 6

Player 3 draws two cards and then plays two Parenthesis Cards.

TURN 7

Player 1 draws two cards and then plays a Fallacy Card on Player 2 while discarding a card.

TURN 8

Player 2 draws two cards and, unable to play any cards to the Proof, he discards two cards.

TURN 9

Player 3 draws two cards and then plays a NOT and a D.

NOTE: There are now four Premises (lines), so no more lines may be added. All four variables are in the Proof, so the game may end at any time.

TURN 10

Player 1 draws two cards and then plays a Tabula Rasa Card to remove a NOT from Premise (line) 3 and then a Ergo Card, and ends the round. A and D are the only proven variables (there isn't a paradox), and so A receives 11 points, 1 for each card in the Proof; if there was a D player, they also would receive the 12 points.

RULES OF LOGIC

The following classical rules of logic determine if variables are proven true (or not) from the Proof. The names of some shortcuts are in Latin (with English translations in parentheses).

BIVALENCE

If something is "Not True," it can be considered false.
If something is "Not False," it can be considered true.

INVOLUTION

$\sim (\sim B)$

Then you can conclude "B."

(NON-CONTRADICTION)

$\sim (A \bullet \sim A)$

This can be considered true, but doesn't prove anything.

ABSORPTION

$A \vee (A \bullet B)$

$A \bullet (A \vee B)$

In both instances you can conclude "A."

MODUS TOLLENS
(THE WAY THAT DENIES BY DENYING)

$A \supset B$

$\sim B$

Then you can conclude not "A."

DISJUNCTIVE SYLLOGISM
(SIMPLE ARGUMENT FORM)

$A \vee B$

$\sim A$

Then you can conclude "B."

IDEMPOTENCE

$A \vee A$

$A \bullet A$

In both instances you can conclude "A."

EXCLUDED MIDDLE

$A \vee \sim A$

This can be considered true, but doesn't prove anything.

MODUS PONENS
(MODE THAT AFFIRMS BY AFFIRMING)

$A \supset B$

A

Then you can conclude "B."

HYPOTHETICAL SYLLOGISM
(THEORY OF CONSEQUENCES)

$A \supset B$

$B \supset C$

You can conclude "A" "THEN" "C."

DEMORGANS LAWS

$\sim (A \vee B)$

is the same as

$\sim A \bullet \sim B$

~(A • B) is the same as ~A V ~B

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