

ELEUSIS EXPRESS

Original Eleusis by Robert Abbott is at logicmazes.com/games/eleusis/
Express variation by John Golden is at gathering4gardner.org/remembering-robert-abbott/ and at logicmazes.com/games/eleusis/express.html.
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Eleusis is a card game of inductive reasoning, invented by Robert Abbott in 1956, introduced by Martin Gardner in his Mathematical Games column in the June 1959 *Scientific American*. In 1963 it appeared in *Abbott's New Card Games*. It was later revised and extended by Abbott, and Gardner introduced Abbott's new version in the October 1977 *Scientific American*. Express is a considerable simplification of that game. Robert pronounced the name "Eleusis" as "el-you-sis."

The idea: One player has a secret rule for which cards can be played.
Example: a card has to be a different color from the card before it. Other players lay down cards they think might fit the pattern. If a player lays down a card that works, that player can try to guess the rule. Determining the rule is the ultimate goal.

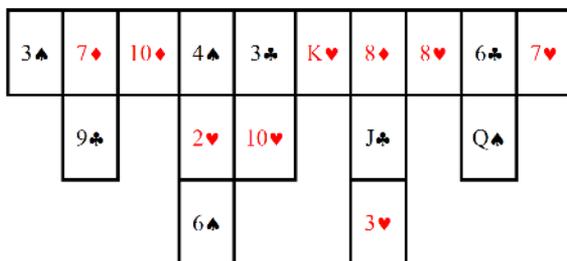
Number of players: Eleusis Express is a game for three or more players, and probably best with four or five. Feel free to add decks for larger games of six or more people – the card backs don't matter.

The stock: An ace is low, and has the number value 1. Jack=11, Queen =12, and King=13.

Assume, for the description on pages 9-11, that all players are male.

Object: A game consists of one or more rounds (hands of play). A different player is chosen as the dealer/rule maker for each new round. All plays are made to a central layout that grows as the round progresses. An example is shown on the next page. A layout consists of a horizontal *mainline* of cards that follows a certain pattern. Below this are vertical *sidelines* of cards that did not work. The *sidelines* are incorrect cards for the next play, rather than for the current play. Players do well by getting rid of the cards in their hands. They get rid of cards by playing ones that are accepted on the mainline of the layout. The dealer/rule maker of a round does not play a hand. (His score is based on the scores of the other players, if you're keeping score.)

A TRIBUTE TO ROBERT ABBOTT



In this example, the card flipped over was the 3♠, and the 7♦ was a correct play. For the next play, the 9♣ was incorrect, but the 10♦ worked. For the next play, the 4♠ was a correct play following the 10♦. For the next play, the 2♥ and the 6♠ were incorrect. The 3♣ was correct. What might the rule be? As you think, use both the cards that fit the pattern and those that don't!

The secret rule: Each round has a different rule that determines which cards are accepted on the mainline and which are rejected. At the beginning of a round, no player knows this rule except the dealer. A rule should allow for several cards to be played at any given time, but not too many. *Examples:* Too restrictive – the next card must be one higher and a different suit. Too permissive – the next card must be a different number from the previous card. A rough rule of thumb is $\frac{1}{4}$ to $\frac{1}{2}$ or so of the deck should be playable at any given moment. Every card should be playable after some previous card. Avoid exceptions or wild cards, like “face cards are always correct” or “an ace can be high or low.” Worth noting: whatever the rule, it will often be harder to guess than one might expect. The rule in the example is “If black, play odd; if red, play even.”

Set up: The dealer chooses or writes down his secret rule. After shuffling, he deals seven cards to each of the other players. The dealer flips over the top card of the deck. Players can play with their hands open or hidden. Open hands are better for people learning the game.

Play: The player to the left of the dealer chooses a card to try to play. The dealer says whether it's in or out. If in, it goes next on the mainline. If out, it goes below the last card on a sideline. If a player plays a card that's out, that player draws another card.

If a player thinks he has no card to play, he can show his hand. The dealer checks – if the player is right, the player can play one of his cards out on the sideline. If the player is wrong, the dealer plays one of the player's cards on the mainline and the player draws a card.

After a correct play on the mainline (or a correct 'no play'), the player can try to guess the rule. A correct guess of a rule equivalent to the dealer's rule ends the hand. On an incorrect guess, the player draws a card and play continues.

Ending the hand: After a player guesses a rule, the dealer must decide whether the player is right or wrong. (Dealer: try not to give clues when judging a rule!) The dealer must decide if the player's proposed rule is *equivalent* to his; that is, whether it would have the same effect for each card. Equivalent rules will often be worded differently. If the guess is correct, the hand is over. If the rule guess is incorrect, the player draws a card, and play continues. It's only polite for the player to share how he guessed the rule. (Note that if players are keeping score, a player might want to keep going, even after he knows the rule, to get rid of more cards.) If the rule is never guessed, the hand ends after the last card is drawn. If someone gets to zero cards in hand, he has to make a guess of the rule.

Ending the game: If time allows, everyone gets to be the dealer the same number of times. When the last person has had his last turn playing dealer, reminisce about the clever rules and great feats of inference. If playing for points, then total scores to determine the winner.

OPTIONAL - Scoring: Players get a number of points for how many cards are left in their hand. If a player guessed the rule, they get an extra -3. The dealer scores the same as the second lowest player. Low score wins at the end of the game. Example: at the end of a hand, Bob has 3 cards and scores 3. Ted has 6 cards and scores 6. Adam has 7 cards, guessed the rule, and scores 4. As John was the dealer, he scores 4 also, since it's the second lowest score. Scored games should have each player as the dealer/rule maker the same number of times. Lowest score wins the game.



Robert Abbott's book, *Abbott's New Card Games*, which includes Eleusis