

## ALGEBRIDGE

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Making the Deck: The deck consists of two parts, playing cards and replacement cards. The 52 playing cards can be 4 x 2.5 inch pieces of posterboard. The suits are represented by 4 colors of felt pens. On each card print one of the following algebraic expressions:  $(x^2+3x)$ ,  $(x^3-2x)$ ,  $(x^2)$ ,  $(x^3)$ ,  $(2x^2-2x+2)$ ,  $(x^4-x^2+1)$ ,  $(x^3+2)$ ,  $(7x-x^2)$ ,  $(x^3+x^2+1)$ ,  $(4x-x^2)$ ,  $(x^4-1)$ ,  $(1/2 x^3)$ , and  $(x^3+7)$ . These same expressions (or any preferred ones) are repeated in each suit (color). The second part of the deck is a set of 17 cards.

These are used to determine replacement value for  $x$  during play -- make 4 with numeral 4, 4 with 3, 4 with 2, 4 with 1 and 1 with 5. Shuffle well and keep separate from playing cards.

Using the deck: The game is played like bridge. There are four players. The replacement set is shuffled and placed face down in the center of the table. The playing cards are dealt so that each player receives 13. The dealer turns over the top replacement card -- this is the value by which to replace the variable for that trick. The dealer now leads a card from any suit. All players must follow suit if they can or if they cannot, they discard any card from their hand. (A card from the wrong suit cannot win the trick.) The winner of the trick is the player whose card has the highest value when replaced by the replacement value showing. It is now his turn to turn over the next replacement card and lead. The winning team is the one that wins the most tricks.