

Using Cards to Learn Math

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I learned how to add and subtract at a very young age by playing the card game 99. I learned how to count the pips on the cards to find the answers to the addition problems in the card game.

The following is a list of ways to practice math by using a deck of cards.
Remember an Ace counts as one.

Topic	Use of Cards
Addition	<ul style="list-style-type: none">• Use a single deck.• Take out the Jacks, Queens, Kings and Jokers.• Turn up two cards.• Write the numbers down on a piece of paper with a plus sign between them and then an equal sign.• Count the pips (hearts, diamonds, spades, clubs) in the center of the cards to find the answer.• Write the answer on the piece of paper after the equal sign.
Subtraction	<ul style="list-style-type: none">• Use a single deck.• Take out the Jacks, Queens, Kings and Jokers.• Turn up two cards.• Put the larger card in front of the smaller card.• Write the numbers down on a piece of paper with a minus sign between them and then an equal sign.• Count the pips (hearts, diamonds, spades, clubs) in the center of the first card.• Count the pips backwards on the second card to find the answer.• Write the answer on the piece of paper after the equal sign.
Multiplication	<ul style="list-style-type: none">• Use a single deck.• Take out the Jacks, Queens, Kings and Jokers.• Turn up two cards.• Write the numbers down on a piece of paper with a multiplication sign between them and then an equal sign.

<p>Multiplication (Continued)</p>	<ul style="list-style-type: none"> • Draw a grid on the piece of paper with the first card number of columns and the second card number of rows. • Count the squares in the grid to find the answer. • Write the answer on the piece of paper after the equal sign. • For a visual demonstration of this go to the Multiplication Grid Applet at http://www.edonyourown.com/java/GridApplet.html. Refresh the screen to see random grid examples.
<p>Exponents</p>	<ul style="list-style-type: none"> • Use a single deck. • Take out the Fives, Sixes, Sevens, Eights, Nines, Tens, Jacks, Queens, Kings and Jokers. • Turn up two cards. • Write the numbers down on a piece of paper with the first card as the base and the second card as the exponent and then an equal sign. • Use multiplication to find the answer. Example: 2 raised to the 3rd power would be $2 \times 2 \times 2 = 8$. • Write the answer on the piece of paper after the equal sign.

Rules for the Card Game 99

Topic	Information
Number of Players	2-15
The Deck	Double deck, no jokers
Special Cards	<p>Ace is one or eleven (either one or eleven is added to the total)</p> <p>Four is reverse (the play changes directions and goes back to the previous player - the total does not change)</p> <p>Nine is pass (the play passes to the next player - the total does not change)</p> <p>Ten is minus ten (subtract ten from the total)</p> <p>Jacks and Queens are ten (add ten to the pile)</p> <p>Kings are 99 (whatever the total is, it changes to 99 - multiple Kings may be played on top of each other and the total is still 99)</p>
The Deal	Deal three cards to each player.

The Play	<ul style="list-style-type: none"> • Once the cards are dealt, the player to the left of the dealer starts the game with the first card added to the pile in the center and starts the total of the pile. • When a card is placed on the pile, the player announces the new total of the pile. (Example: 1st player plays a 7 and says seven - 2nd player plays a 5 and says twelve - 3rd player plays a Jack and says twenty-two) • Each player must draw a replacement card after each play. If a player does not draw a card before the next player plays, then that player plays with only two cards, instead of three. • A card must be passed, so that each player only has four cards in their hand. • Once the total gets into the 90's, it becomes difficult to play cards. This is when the special cards are usually played. Keep in mind a Ten or a King may be played at any time, so that there can be a negative total or a total can go from 57 to 99 in one turn. • The round stops when a player is no longer able to play any of their cards. This player is excluded from the next round. For younger players, continue playing with all players.
The Win	The last player to make a valid play wins.

Rules for the Card Game Add to 15

Topic	Information
Number of Players	1
The Deck	Single deck, no jokers
Special Cards	The Ace is worth one.
The Deal	Lay out sixteen cards in four rows of four cards each (4 x 4 grid)
The Play	<ul style="list-style-type: none"> • Pull off cards in the same suit that add up to fifteen. Do not use the tens, or face cards for this.

The Play (Continued)	<ul style="list-style-type: none"> • Pull off all four tens, jacks, queens, and kings at one time. Or pull off each set of ten, jack, queen and king in the same suit at one time. • Lay the pulled off cards face down in a discard pile. • Fill in any of the empty places with new cards from the rest of the deck. • When there are no more plays and there are still cards in the deck, then one card may be turned up from the deck to see if it can be used with the other cards. If it doesn't help, then the game is done.
The Win	All cards in the deck are placed in the discard pile.

Rules for the Card Game Add to 15

Topic	Information
Number of Players	1
The Deck	Single deck, no jokers
Special Cards	The Ace is worth one.
The Deal	Lay out sixteen cards in four rows of four cards each (4 x 4 grid)
The Play	<ul style="list-style-type: none"> • Pull off cards in the same suit that add up to ten. Do not use the tens, or face cards for this. • Pull off all of the tens, jacks, queens, and kings when they are face up on the table. • Lay the pulled off cards face down in a discard pile. • Fill in any of the empty places with new cards from the rest of the deck. • When there are no more plays and there are still cards in the deck, then one card may be turned up from the deck to see if it can be used with the other cards. If it doesn't help, then the game is done.
The Win	All cards in the deck are placed in the discard pile.

Math is fun!