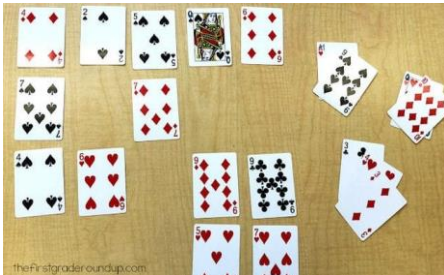


Tip Sheet

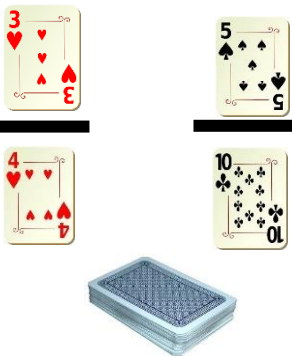
Playing Card Maths – Games for all Ages

Playing card maths



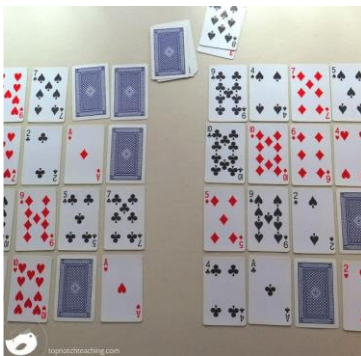
Try for a total of 10.

Play this card game alone or as a team. Lay out 20 cards on the table (leave out picture cards or change them to equal 0, while aces equal 1). Children remove sets of 2 or 3 cards that add up to 10, ultimately trying to remove all the cards from the table. It's harder than you think!



Declare a fraction war.

War is one of the original card games, but this version adds a fraction aspect. Students deal two cards, a numerator and denominator, then determine whose fraction is the largest. The winner keeps all four cards, and play continues until the cards are gone.



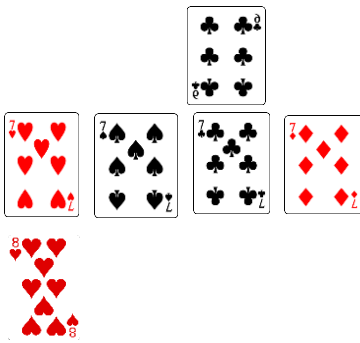
Learn numbers with card bingo.

Remove the picture cards and have each player lay out a 4 x 4 playing "board" of cards. Remaining cards (or another deck) are placed face down, and a caller flips over a card. Any player who has that number on their board turns the card face down. Play continues until one player has a row flipped over horizontally, vertically, or diagonally and calls "Bingo!"



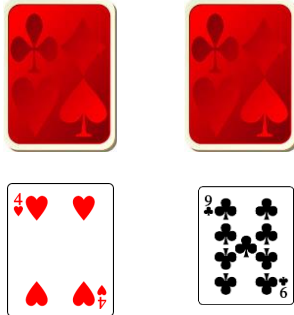
Find a way to make 10 (or 15, or 20 ...)

The goal of this game was to look at the cards you are dealt to find ones that add up to 10, but it can be changed to 15, 20, or any number you choose. You can also add to the difficulty by allowing addition and subtraction (for example, you could use $8+4=12$ or $12-2=10$).



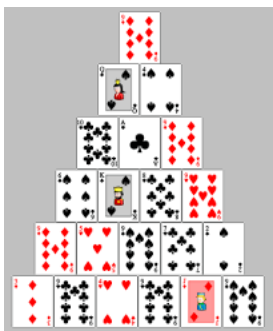
Practice number sequencing with builder's paradise.

Simple card games can help children learn how to put numbers in order. To play builder's paradise, discard the picture cards and lay out the 4 sevens in a deck side by side. In each round, players work to add the next higher or lower number in each suit, trying to be the first to get rid of all their cards.



Recall of basic facts practice.

Simply lay down two cards from the deck (remove the picture cards first) and add, subtract, or multiply them. Children can work on this alone, or you can make it a contest to see who can call out the correct answer first.



Play pyramid solitaire alone or in teams.

Arrange the cards as in the picture. Try to find cards that add up to 13 as you clear your pyramid row by row. Or adapt by removing picture cards and find pairs to just 10.



Go fishing for pairs that make 10.

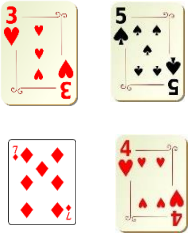
This is a version of Go Fish where you are fishing for pairs that add up to 10. Change aces to 1 for this game and leave picture cards out entirely. Deal out 5-7 cards to each player and take turns to ask each other e.g. : "I have a 2. Do you have an 8 to make 10?" If the answer is no the player has to pick up a card from the undealt cards. Collect pairs of cards that total 10. The game finishes when a person gets rid of all their cards.

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Place value challenge – Hundred, tens and ones game

Remove picture cards. Take 1 card at a time and as you do decide where to place it, either in the Hundreds, Tens or Ones column. Beforehand decide whether the winner is the person who makes the largest, smallest or number closest to a target number.

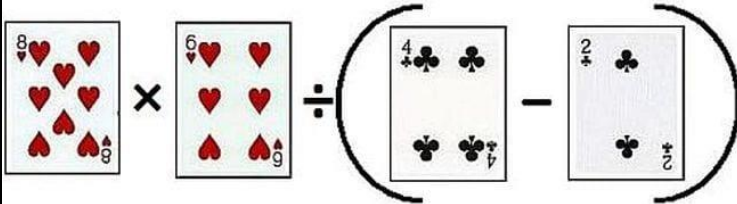




Use Close Call to practice two-digit addition or subtraction.

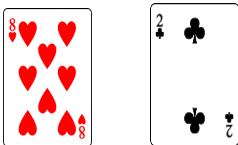
To play Close Cal remove all the picture and 10 cards. each player then deals themselves four cards and determines how to arrange them so they make two two-digit numbers that add up close to 100 without going over. For a subtraction version, work to get as close to zero as possible.

So for example... $35+74 = 109$ or $34 + 57 = 91$ etc



Use order of operations to get to 24 – for older children

Remove picture cards. Each player is dealt four cards, then uses the order-of-operations rules to try to make a number as close to 24 as possible. Simple but challenging! Work out what is in the brackets first!



$$-8 + 2 = -6$$

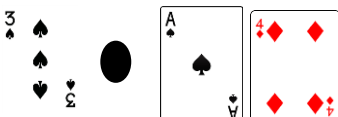
Let card colour indicate **negative (-)** or **positive (+)**.

In this game, red cards are **negative integers** while black cards are positive. Remove picture cards then deal 6 cards to each player. Players take turns to either pick up from discard pile or unseen deck of cards to make pairs of numbers that total 6 or -6. Players place pairs down as they are made. Play until a player has no cards left or unseen deck is finished. The player with most card win!

Take a trip around the spiral to practice mental recall of number facts.

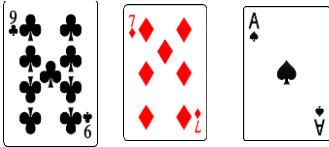
You'll need a pair of dice for this card game. Picture cards can be removed or represent 11,12,13. Lay cards out randomly in a spiral formation and place a marker for each player on the centre card of the spiral. Player one rolls the dice then moves their marker that number of spaces shown. They then must multiply (or add or subtract, depending on preferences) the card number by the number on the dice. If they get the answer correct, they stay where they are. If not, they return to their original card. Play continues until one player reaches the end.

$$\pi = 3.14159265359$$



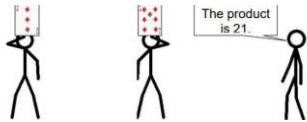
Be the fastest in the race to pi.

In this game, players work to lay out the digits of pi in order. It's a simple draw-and-play game but will help familiarise children with this important number. You can write out the digits first or see who knows them from memory.



Take a gamble with triple-digit dare.

Each player gets three cards and privately determines the highest three-digit number they can make (you can use decimals or not, depending on age). Then, each player has a turn to stick with the cards they have, swap with one from the deck, or steal one of the other players. All players then lay down their best number to see who wins.



Try reading minds to figure out the product (x).

Two players draw a card each from the deck without looking and hold it up to their forehead facing out. A third person mentally multiplies the numbers and gives them the product. The players then must figure out what number each is holding. You can do this with addition and subtraction too.

Happy shuffling - *Sarah*