



## Dice and Card Games to Practice Math Facts Card Games

### *Teaching Addition Math Facts to Kids With Go Fish!*

This new twist on the old classic Go Fish! helps kids to learn addition by mentally working out simple math problems. Each round played practices math facts for a specific number, making it easy to stick with one set of facts for as long as needed to solidify them in the players' mind.

All that's needed to play this game is a standard deck of playing cards. It is best enjoyed with 2-4 players.

#### ***How to Play Go Fish!***

1. Sort through the deck to remove all cards that are higher than that featured number for the math game. For example, if the goal is to learn addition facts for the number seven, the game will be played with ones (aces) through sevens.
2. Deal out five cards to each player and place the remaining cards in a draw pile.
3. Have each player look through his or her hand of cards to find any pairs that add up to the featured number and place them face up in their discard pile. For example, if learning addition facts for the number seven, appropriate pairs would be  $6+1$ ,  $5+2$  or  $4+3$ . The 7 card would also be laid aside as a correct solution that doesn't require a pair.
4. The person to the left of the dealer may now ask any other player for a card that will help create the sum required. If the person asked has the card in his hand, he must give it up to the player that made the request. A player can keep asking for cards until no further matches are able to be made, at which point he is told to Go Fish! from the draw pile and the next player takes a turn trying to make a match.
5. If a player runs out of cards he can choose five more cards from the draw pile to stay in the game.
6. Continue playing until all the cards in the deck have been matched into pairs. The player with the highest number of pairs at the end of the game is the winner.

#### ***Learning Addition Facts by Playing Memory***

The card game Memory, or Concentration, is another great game that can be modified to teach addition facts to kids. As with the instructions for Go Fish! above, each game focuses on math facts for a specific number. All that's needed to play this game is a standard deck of playing cards. It can be played alone or with a group.

#### ***How to Play Memory***

1. Sort through the deck to remove all cards that are higher than that featured number for the math game. For example, if the goal is to learn addition facts for the number six, the game will be played with ones (aces) through sixes.
2. Shuffle the deck and turn all the cards face down in a grid pattern.
3. Taking turns, have each player flip two cards to look for a matching pair. For example, if learning addition facts for the number six, appropriate pairs would be  $5+1$ ,  $4+2$  or  $3+3$ . The 6 card would also be laid aside as a correct solution that doesn't require a pair.
4. Continue playing until all the cards in the deck have been matched into pairs. The player with the highest number of pairs at the end of the game is the winner.

#### ***Subtraction Challenge!***

Play this fun card game with your child and before long those challenging subtraction math facts will be part of her mathematical skill set. Besides strengthening subtraction skills, this game also provides practice in comparing numbers.

#### ***What You Do:***

1. Shuffle the deck of cards and deal them face down, giving each player an equal number of cards until the deck runs out. Each player keeps his cards in a stack. Assign picture cards, such as jacks, queens, and kings, a value of 10. Give aces a value of 1.

2. Demonstrate to your child how to play the game: Each player turns two cards face up, reads the number sentence and supplies the answer. For example, if your child draws a 5 and a 4, he says  $5 - 4 = 1$ . If you draw a 7 and a 2, then your number sentence is  $7 - 2 = 5$ . Because your result is larger, you win the four cards and you put them at the bottom of your pile.
3. If each of you has a number sentence with the same answer, then it's challenge time! At this point, you'll reverse the math "operation" and do an addition problem. Each player puts four cards face down and turns up two of them. The player with the sum wins all eight cards.
4. Play the game for 10 to 15 minutes. When the bell goes off, each player counts his cards. The player with the most cards wins. If one player runs out of cards before time is up, then the other player wins.

*Get your game on! Subtraction Math Challenge is an marvelous, high-speed way to build up math skills while spending a richly enjoyable time with your child.*

### ***“I’m the Greatest!” A Math Card Game***

Grab a deck of playing cards, and let’s go! Challenge your child to find the largest sums possible. Whoever can find the biggest answers gets the points! Your child will gain a better understanding of addition as he/she uses a critical thinking process to determine the best position for each number.

#### ***What You Do:***

1. The object of the game is to win points by forming the largest sum.
2. Remove tens and face cards from the deck. If you have jokers, add them into the deck. Jokers will equal zero.
3. Shuffle the cards. Give each player six cards.
4. Players have exactly one minute to make a 3-digit plus 3-digit addition problem using the numbers on their six cards. Players should experiment and double check their work to ensure they have the largest sum possible.
5. The player with the greatest sum wins the round and one point. The first player to earn 10 points wins the game.

#### ***Variations:***

- For younger players, deal two or four cards and form 1 or 2 digit sums.
- Adjust or remove the time limit.
- Change the scoring so players earn the number of points in their sum. Change the name of the game to *Think Big!*
- Change the name of the game to *Small is Beautiful*. Create subtraction problems instead.
- Use more cards. Try adding four digit numbers or five digit numbers.
- Work on place value. Have players try to create the largest possible 6-digit number with their 6 cards.

### ***Quick Stop: An Addition (or Multiplication) Card Game***

Are you tired of worksheets and flashcards? This card game is a fun way to practice addition. Compete for the highest score as you flip over cards. Add up your cards until you reach 100 points. The first one there wins! Ready for a challenge? Check out the variations at the bottom of the page!

#### ***What You Do:***

1. Place a well shuffled deck of cards, face down, in the center of the playing area.
2. Each player begins by drawing one card and placing it face up in front of themselves. Players write the value of this card down at the top of their papers. (Aces are worth 1, and face cards are all 10.)
3. When all players are ready, everyone draws a second card. They add the value of these cards to their totals.
4. Keep playing until one player reaches 100.

#### ***Variations:***

- Play until the deck runs out. The player closest to 100, without going over, wins.

- Add jokers into the deck. If a player draws a joker, their score drops back to zero.
- Start with 100 points, and subtract your way to the finish.
- Need a challenge? Use multiplication to reach 1000. (This is a good adaptation for a fourth grader!)



### ***Build a Tower***

Use Lego, pennies, wooden blocks, popsicle sticks or any basic building material you can find. Have players roll a pair of dice and add the two numbers. The player gets that number in building materials if the dice are added correctly and uses them to build a tower. Go through 10 or 15 rounds. The player with the tallest or most creative tower at the end wins. Instead of rolling dice, you may create a general math board and include a problem on each square.

### ***Learn Multiplication and Addition Math Facts With Going to Boston***

Going to Boston is an easy to play math game that can help kids learn addition and multiplication skills. It can be modified to provide easier or more challenging versions, based on the skill level and age of the players.

#### ***How to Play Going to Boston***

Have each player roll one die. The player with the highest number goes first. Each player in turn rolls all three of the dice. After the first throw, remove the die with the highest number and put it aside. Roll the two remaining dice and again put the highest number aside. Roll the last die and add up the numbers on all three dice to get the player's score for that round. Record the score on a pad of paper. Continue taking turns moving clockwise around the table until all players have had a turn. The highest score for the round wins. Play a number of rounds and either add up a combined score at the end or tally winning rounds to come up with a game champion.

#### ***Variations of Going to Boston***

- Play with two dice for younger children to learn addition skills.
- Keep the lowest numbered die rather than highest for a slightly easier game that teaches addition skills.
- Increase the number of dice in the game to 4+ to learn more complicated addition skills.
- Learn multiplication by taking the sum of the first two dice and multiplying it by the third

### ***Teaching Math to Children with Math Challenge Game Using Dice***

This is a fun and easy dice game that can be modified to teach addition, subtraction and multiplication skills.

#### ***How to Play Math Challenge***

Have each player roll one die. The player with the highest number goes first. Each player rolls their two dice. The numbers on both dice are added together to come up with an individual player's score. The player with the highest scoring combination wins the round. Winning rounds can be noted on a pad of paper with a tally mark under the winning player's name, or with counters such as beads, rocks, or pennies. Play a number of rounds and have players add up their counter or tally marks at the end to come up with a game champion.

#### ***Variations of the Game***

- Play with one dice for younger children to practice basic less than/greater than sequencing.
- Learn subtraction skills by having players subtract the lower die from the higher die to come up with a number for each round.
- Increase the number of dice in the game to 3+ to teach more complicated addition skills.

- Practice place value skills by having players create a double-digit number from the rolled dice. For example, rolling a two and a five becomes either 25 or 52.
- Learn multiplication skills by multiplying the numbers on the two dice to determine the winning score.

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