

Math Dice and Card Games

MULTI-DIGIT MULTIPLICATION NUMBER BATTLE

Players: 2

Materials: Deck of cards with the face cards and 10s removed, Ace worth one, scratch paper

How to Play: Players split a deck of cards and simultaneously flip over their top three (or four) cards. Make two of them a 2-digit number and multiply by the third. The highest product wins all the cards.



Player 1: product is 261

Player 2: product is 384

The highest product wins all six (or eight) cards.

Increase the number of cards to flip if you want to work on larger numbers.



Multiplication Dice Game



Number of Players: 2 or more
Materials: 3 dice, pencil/pen and paper

Goal: Get the highest score.



How to Play



- Throw all three dice. The highest die is put to the side.
- Roll the remaining two dice. Take out the highest die.
- Throw the remaining die.
- Add the numbers of the first two dice. Multiply the sum by the third die. That is the total score for that round.

Play 5 or 10 rounds and add the totals to find the overall winner of the game.



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Multiplication War

Number of Players: 2 Materials: 1 deck of cards



Goal: Collect all of the cards.



How to Play

- Take out all jacks, queens, kings, and jokers. Use the aces as ones. Divide the deck into two piles. Keep the cards face down.
- At the same time, turn over 2 cards from the pile, placing them in the center. The players multiply the values of their cards. The player with the bigger product wins that battle and takes all 4 cards, adding them to the bottom of their stack.
- If the players have the same product, they go to war. Each player places two more cards face up, then multiplies the factors of all 4 cards together. The player with the higher product wins all 8 cards.

The winner of the game is the one who gets all the cards in the deck or when his opponent runs out of cards during a war.

*If you want to add more players, use two decks of cards.



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Multiplication Challenge

Number of Players: 2*

Materials: 1 deck of cards, pen/pencil, scratch paper.

How to Play

Ace is worth 11. Jack is worth 12. Queen is worth 13, King is worth 14, Joker is worth zero.

- Divide the deck into two piles. Keep the cards face down.
- At the same time, turn over 3 cards from the pile, placing them in the center. The players multiply the values of their cards. The player with the bigger product wins the battle and takes all 6 cards.
- If the players have the same product, the cards are placed in a center pile. The next hand is played as normal and the winner takes all of the cards from that round and the previous tie.

The winner of the game is the one who gets all the cards in the deck.

Challenge Version: Flip four cards during each round.

*If you want to add more players, use two decks of cards.

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Multi-Digit Multiplication

Number of Players: 2*

Materials: 1 deck of cards, pen/pencil, scratch paper.

How to Play

- Ace is worth 1. Remove face cards and 10s.
- Divide the deck into two piles. Keep the cards face down.
- At the same time, turn over 3 cards from the pile, placing them in the center. Make two of the cards into a 2-digit number then multiply by the third. The player with the higher product wins all the cards.
- If the players have the same product, the cards are placed in a center pile. The next hand is played as normal and the winner takes all of the cards from that round and the previous tie.

The winner of the game is the one who gets all the cards in the deck.

Challenge Version: Flip four cards during each round to create two 2-digit numbers.

*If you want to add more players, use two decks of cards.

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Exponent Battle

Number of Players: 2*

Materials: 1 deck of cards, pen/pencil, scratch paper.

How to Play



- Face cards are worth 10. Ace is worth 11. Remove the Jokers.
- Divide the deck into two piles. Keep the cards face down.
- At the same time, players turn over 2 cards, the first card is the base and the second is the exponent. Solve to find the product. The player with the higher product wins the battle and all of the cards from the round.
- If the products are equivalent, the cards are placed in a center pile. The next round is played and the winner of the next battle wins all of the cards from this round and the previous battle.
- The winner of the game is the one who gets all the cards in the deck.

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*If you want to add more players, use two decks of cards.

O·V·E·R·-·U·N·D·E·R

Number of Players: 2

Materials: 1 deck of cards

How to Play

- Ace is worth 1. Remove the Jokers and face cards.
- Players split the deck of cards. One player is the "Under 30" player, the other is the "Over 30" player.
- Each player turns over a card at the same time. The two numbers are multiplied together. If the product is less than 30, the "Under 30" player keeps the cards. If the product is greater than 30, the "Over 30" player keeps the cards. If the product is exactly 30, each player takes their card back, placing it back in their deck.
- The winner of the game is the one with the most cards.

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The King's Taxes

Number of players: 2 – 4

Materials: 1 deck of cards, pencils, paper

How To Play

- Aces are worth 1, jacks are worth 11, Queens are worth 12, Kings mean you lose 100 points.
- Place a well shuffled deck of cards, face down, in the center of the playing area.
- Every play begins at the same time, by drawing one card and placing it face up in front of themselves. All players write their number on their paper.
- When everyone is ready, everyone then draws a second card. They times the value of their first and second cards to get the product.
- They add the product to their game total
- If someone draws a king, they lose 100 points and lose their turn that round.
- If the deck runs out, reshuffle the cards and keep playing
- Play until someone reaches 1000

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Pig

Number of Players: 2 to 4

Materials: dice, paper, pencil

How To Play

- First person rolls the dice and multiplies the numbers. The person can choose to keep rolling or stop at any time. With each new set of factors rolled, they add the product to their total for that turn.
- If a person rolls a 1 (called a “pig-out”), the person loses all of the points from that turn.
- If/when a person chooses to stop rolling, he/she records the sum of his/her score and adds it to any points earned on previous turns.
- If a person rolls double 1s, then their score for the whole game goes to 0. The person starts over.
- The first person to reach 500 wins.

Variations

-Use 12 sided dice to practice more facts.

-Roll two dice and first add them. Make this your first factor. Roll another die to get your second factor. For example: I roll 3 and 6 and add to get 9. Then I roll a 5. I solve 9×5 .

-You can also roll two die to get both factors.

Example: : I roll 3 and 6 and add to get 9. Then roll 5 and 6 to get 11. I solve 9×11 .

-Change the amount of points to win. If you want a shorter game, go to 250. If you want a longer game go to 1000.

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Spiral

Number of Players: 2 - 4

Materials: Deck of cards, 1 or 2 dice (or a 12-sided die), small items to use as game pieces for each player, paper, pencil

How To Play

- Ace = 1, Jack = 11, Queen = 12 and king = 13
- To begin, build a spiral out of the entire deck of cards. This will serve as your game board.
- Each player places their game piece at the card in the center of the spiral.
- The first player rolls a die and moves that number of cards on the game board. They must then multiply the number on their die with the value of the card they landed on. If they solve it correctly, they stay there. Otherwise they go back to their previous position.
- Players take turns rolling and moving around the game board.
- If players land on a card with another player on it, they "bump" that player back to start.
- If a player lands on a "double", meaning the number on their die and the value of their cards is the same, they get to go again.
- The first player to land exactly on the last card and correctly solve the multiplication problem wins!

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I SPY PRODUCTS

Players: 2

Materials: Deck of cards, face cards worth ten, Ace worth 1 or 11

How to Play: Deal out the entire deck of cards in a 13 x 4 array. *Example does not show the entire array due to space.*



One player challenges the other player to find two cards next to each other, either vertically or horizontally, that multiply to make a number by saying, "I spy two cards with a product of 40."



The other player looks for two cards that multiply to make the product and removes them. Players swap roles. As large gaps appear, the size of the array may be reduced to help fill the gaps.

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HIT THE TARGET

Players: 2
Materials: Deck of cards, Ace worth 1 or 11, Jack worth 12, Queen worth 13, King worth 14, scratch paper

How to Play: Select a target number from 1-30. One of the players turns five cards from the deck face up. Both players try to make a number sentence using all five cards with any operations to reach the target number.



For example, suppose the target number is 20 and the cards in play are 5, 5, 6, 2, and Ace (worth 1).

$$5 \times 2 + 5 + 6 - 1 = 20$$

One winning combination is: $5 \times 2 + 5 + 6 - 1 = 20$. Other combination would also work. The first player to find a winning combination keeps the cards and chooses the next target number.

ODD SQUAD

Players: 2
Materials: 2 dice, scratch paper
Object: Have the largest score after 5 rounds

How to Play: Alternate turns. On a turn, a player rolls both dice. If the number rolled is even, it is used at face value. If the number rolled is odd, it is multiplied by 10. Both numbers are then multiplied together, and the product is the player's score for that round.

Examples:

1. A player rolls a 2 and a 3. The 2, which is even, is used at face value. The 3, which is odd, is multiplied by 10 to get 30. The player then multiplies 2×30 for a total of 60 on the round.
2. A player rolls a 3 and a 5. The player would multiply 30×50 for a total of 1,500 for the round.
3. A player rolls a 4 and a 4. The player would multiply 4×4 for a 16 on the round.

Play continues for 5 rounds, and the player with the highest score wins.

Variation: Play by multiplying even numbers by 10 and odd numbers by 100.