



## Math Games



### War For Two Players

In the basic game there are two players and you use a standard 52 card pack. Cards rank as usual from high to low: A K Q J T 9 8 7 6 5 4 3 2. Suits are ignored in this game.

Deal out all the cards, so that each player has 26. Players do not look at their cards, but keep them in a packet face down. The object of the game is to win all the cards.

Both players now turn their top card face up and put them on the table. Whoever turned the higher card takes both cards and adds them (face down) to the bottom of their packet. Then both players turn up their next card and so on.

If the turned up cards are equal there is a **war**. The tied cards stay on the table and both players play the next card of their pile face down and then another card face-up. Whoever has the higher of the new face-up cards wins the war and adds all six cards face-down to the bottom of their packet. If the new face-up cards are equal as well, the war continues: each player puts another card face-down and one face-up. The war goes on like this as long as the face-up cards continue to be equal. As soon as they are different the player of the higher card wins all the cards in the war.

The game continues until one player has all the cards and wins. This can take a long time.

Most descriptions of War are not clear about what happens if a player runs out of cards during a war. There are at least two possibilities:

1. If you don't have enough cards to complete the war, you lose. If neither player has enough cards, the one who runs out first loses. If both run out simultaneously, it's a draw. Example: Players A and B both play sevens, so there is a war. Each player plays a card face down, but this is player B's last card. Player A wins, since player B does not have enough cards to fight the war.
2. If you run out of cards during a war, your last card is turned face up and is used for all battles in that war. If this happens to both players in a war and their last cards are equal, the game is a draw. Example: Players A and B both play sevens, so there is a war. Player A plays a card face down, but player B has only one card, so it must be played face up. It is a queen. Player A plays a card face up and it is also a queen, so the war must continue. Player B's queen stays (B's last card) while player A plays a card face down and one face up, which is a nine. Player B wins the war and takes all these seven cards (the five cards that A played and the two cards that B played) and the game continues normally.

### Addition War



Two cards are played at once, and added together. The highest sum wins the trick. Wars are played in the usual way, three cards face down, two cards up: the sum wins all 14 cards. Last player to have cards wins. I, Nancy, invented this to get my kid, Jesse, to practice the addition facts. This game can be played with one or two decks, depending on how long you want the game to go on.

### Subtraction War

Two cards are played at once, the lower subtracted from the higher. The highest sum wins the trick. Wars go the same way. This game can be played with one or two decks, depending on how long you want the game to go on.

## Casualty War



The full name of this game is **Triple Addition Casualty War**

Use 2 decks, including Jokers

### Scoring:

Ace of spades beats everything

Joker = 14 King = 13 Queen = 12 Jack = 11 all number cards equal their numbers

### Play:

Lay out three cards, face up

The highest sum wins the trick

### War:

Occurs whenever there is any match one on each side (unmatched cards are taken by higher).

Place another three cards face down, then three cards face up and proceed as in regular play

If two matches occur, play wars on each. If one player wins both wars, s/he takes all cards. If each player wins one of the wars, those cards are distributed and the original war must be played again.

### Casualties:

At the end of a war, all cards are turned face up and any groups of four or more of the same number are eliminated from the game. During regular play if four or more of a number show up among the face up cards, all are eliminated.

### Win:

Last player to have cards wins. If one player runs out during a play or war, the other player must lend him enough cards to finish the turn.

Casualty war is strangely similar to real war - although you may win a particular battle, you may end up losing more than your opponent.

## Scramble War

This game can be played with or without jokers. You shuffle the deck and you just "throw" the cards on the floor [all cards should be face down] now you randomly pick a card from the pile, your opponent also randomly picks a card from the pile, and whoever has the higher card wins. The rank of cards, from low to high, is  $2 < 3 < 4 < 5 < 6 < 7 < 8 < 9 < 10 < J < Q < K < A$  [ $< JOKER$ , if used].

This game is played like the traditional war game. So if both players draw the same card, you both say "I ... DE ... CLARE ... WAR!", and as they say this they draw 3 cards face down, draw a fourth card and flip it. The higher fourth card wins all these cards.

Both you and your opponent pick cards out of the same face-down heap. When the heap is gone, the person with the most points wins. *It's simplest to assume that every card is worth just one point in the final scoring, so that in fact the person with most cards wins.*

## Good King, Bad Queen



This game is a variation of the traditional game, "War." It is played with a standard 52-card deck, and best for 2 to 3 players. The normal rules of [War](#) apply except with these variations:

1. If you capture a King, that is good: all players give you 5 cards. If you capture a Queen, that is bad: you award 5 cards to all players.

Capturing a card means taking that card in a regular War trick (e.g., an Ace takes a Queen) or winning a card in a war (the open or turned down cards from your opponent, or your turned down cards-which count as won cards; also included are the cards won from the treasury as explained below).

**Example:** you win a War. Between the treasury, the cards you won, and the turned down cards you played in the war, you find 2 Queens and 1 King. Since the king cancels one queen, you owe each player five cards. If you find a King and Queen of the same suit in this whole group of cards, you have won the game.

2. If you win a trick by one point, you must put two cards in a separate pile called the "treasury." For example, if you take a 6 with a 7, you keep those cards, but place two cards from the top of your deck into the treasury. (An Ace counts as both high and low, so if you win a 2 or a King with an Ace, you would place two cards in the treasury in either instance.) Whoever wins the next War wins all the cards in the treasury as well.
3. There are two ways to win the game: deplete your opponent's cards (the traditional way) or taking a Queen with a King of the same suit.



## 21st Century War

Twenty-first century war is a variation on the classic card game of war. This variation adds a bit of strategy to a game that has always been merely a game of chance.

**Object:** To capture all the cards from your opponents.

### To Play:

1. Evenly divide the cards between the players.
2. Each player stacks his or her cards in a pile without looking at them.
3. Each round begins with each player drawing four cards from his or her pile.
4. Players select a combination of cards to play. See rules below on possible combinations.
5. All players simultaneously lay down their selected cards on the table. (The remaining cards are kept in the players' hands.)
6. The player whose cards add up to the most points wins. Number cards are worth their number value. Aces are worth 1, jacks 11, queens 12, kings 13.
7. In the event of a tie, the players whose cards total the same number play only one of the cards remaining in their hand to determine who wins. If one or more of the tied players have no cards left (i.e. if he/she has played all four cards already), they lose. If none of the players have any cards, each of the tied players draws one more card and plays it to determine who wins. If there is still a tie, drawing and playing one card continues until there is a winner.
8. The winner gathers all the cards and places them at the bottom of his/her pile.
9. All players return any excess card to the bottom of their piles and play continues by drawing four new cards at the start of each round until one player has all the cards.

### Rules for combinations of cards that can be played:

1. The ace is a wild card. It can be played with any combination of the below allowed combinations or with any face cards, or with both.
2. The following combinations:
  - i. Pairs.
  - ii. Lower cards that add up to another card in your hand can be played with the higher card as pairs (i.e. a nine and three can be played with a queen, two fives can be played with a ten, or a five and a four can be played with a nine, etc.)

Examples of valid and invalid combinations:

**A-Q:** valid (an ace with a face card)



- A-K-J: valid (an ace with two face cards)
- A-9: not valid (an ace with a number card)
- A-2-7-9: valid (an ace with a valid combination:  $2+7=9$ )
- A-5-6: valid (an ace used as part of a combination:  $1+5=6$ )
- A-10-J: valid ( $1+10=11$ )
- A-4-4-J: valid (an ace with a face card and a valid combination)



## Napoleon's War

This game is for two players. Use a 52-card deck. Divide the deck into two equal piles. (One player begins with all the red cards, while the other begins with all the black cards.)

Both players take their "hand", and may sort it into any order they please. When they are finished sorting their hand, they place it face down, in a stack called their "deck", on the table. Once the deck is set down, the player may no longer change the order! Both players then turn up a single card. As in regular war, whoever revealed the higher card captures both cards. The two cards as placed face up in the players "capture" pile.

If the turned up cards are equal, there is a "war". The tied cards stay on the table. Both players play their next three cards face down, revealing their fourth card face up. Whoever has the higher of the new cards claims all ten cards; repeat the process as long as the revealed cards are equal, with the eventual winner claiming all the cards in the war.

When one player's "deck" is empty, he picks up his "capture" pile. This becomes his "hand", which he must again sort, and place it face down to become a new "deck". (If both players' decks are empty, as is the case when the initial 26 cards expire, both players sort their hands at the same time. However, it is quite possible for one player to be sorting his "hand" while the other player still has 8 or 10 cards left - so card counting becomes important.)

While one player is sorting his "hand", he may ask his opponent how many cards remain in the opponent's "deck" and how many are in his "capture" pile, but may not inquire about or look at cards that are in the "capture" pile (save, of course, that the top card remains revealed).

The game continues until one player has all the cards and wins. However, if the losing player can maneuver the deck in such a way that he runs out of cards during a war, the game is declared a draw.



## Guerilla Joker

This game is played just like standard war except the jokers are used. When a joker is played, no matter what the opposing card(s), you must go to war.

## Duel King

This version is for 2 players only. (It is possible to play with more than 2 players, but it's kind of hard.)

**Object of the game:** get all the cards.

**Card order (highest to lowest):** Joker / K, Q, J, 10, 9, 8, 7, 6, 5, 4, 3, 2, A

How you play is simple. First, the dealer deals out the deck (52 cards plus 2 jokers) to the two players (27 cards each). Neither player can look at his/her cards.

Next both players, at the same time, deal 3 cards from the top of their decks face-down. These are the cards they will play in a single round.

When it's your turn, you must flip a card to play it. At the start of the game, the dealer goes first, then the opponent. Whoever flips the higher card wins both cards - his/her own card back, plus the card flipped by his/her opponent, and puts these two cards at the bottom of his/her deck. Now each player flips the second of their three cards, the higher card winning as before, and then the last card. Three rounds are known as a match. Whoever won the previous flip always flips the first card of the next round.



When all six cards have been flipped, both players take their winnings and deal 3 more face-down cards off the tops of their decks. The game continues like this until a player's deck is reduced 5 cards or fewer. A player with 5 cards or fewer in his/her deck loses the game.

This may seem simple. However, there are obstacles.

If a player flips a King, then all the cards (even if it's just one) on the table that are face-down are flipped face-up and the one who flipped the King takes them all. This is called a **duel king**. Jokers work in a similar way, except that when you win a match with a Joker, you take everything on the table plus the top 5 cards of your opponent's deck!

There is always a chance that you might flip a card of exactly the same rank as your opponent. If that's the case, then both players flip another card on table to see who wins those two and the rest of the face-up cards that have been played. This is called a **duel**. The player who flipped the first card of the round that caused the duel also flips first in the duel. If the two duel cards are also equal, there is another duel.

If you both flip cards of the same rank on the last round of a match - either an ordinary round or a duel - when there are no more cards on the table left to play, then there is a **forced duel**. In a forced duel the two players simultaneously flip the top card of their decks and the higher card wins.

If a King or Joker is flipped in an **ordinary duel**, then as usual it takes all the cards on the table, plus five extra cards for a Joker. It is important that players flip their cards in order in an ordinary duel - if the first player flips a King or Joker it will win all the cards on the table, even if the second player's card is also a King or Joker.

In a **forced duel**, Kings and Jokers beat all other cards but are **equal** to each other. If both players flip Kings, or both flip Jokers, or one of each is flipped, it is a tie and another forced duel must be fought. Nevertheless, if either player flips a Joker in a forced duel, they immediately win 5 cards from the opponent's deck, even if the Joker tied with a King or a Joker flipped by the other player.

If there are many, many forced duels, both players playing the same ranked cards, you might want to consider shuffling your deck.

If your opponent flips a King or a Joker, you have an opportunity to save any of your cards from the table by announcing a **save duel**. Each player then flips the top card of their deck. If your card is better you save the card, but no matter whether you win or lose this duel, your opponent takes both the cards used in fighting the duel, as well as the remaining cards on the table. If a King or Joker appears when fighting a save duel, the rules are the same as for a forced duel. If the two cards flipped in a save duel are the same rank, a forced duel follows to decide the result. In one match, you may have up to three attempts to save cards from a King or Joker by means of a save duel - you can try to save cards from the table or cards that you played in a previous save duel.

After any kind of duel - ordinary, forced or save, the winner of the duel flips first in the next ordinary round of play.

## Speed War

This is simply the game "WAR" with one variation. The smallest cards are continually removed from the game. To begin with, every time a two appears, it is set aside. The winner of that trick simply forfeits the two and claims the remaining card or cards. Once all the twos are removed, you remove the threes as they appear, then the fours, etc.

The advantage of this version is two-fold. First, the game will end relatively soon. Second, "wars" become more frequent as the remaining cards dwindle, making the game more unpredictable and exciting.

## Fast Food



This game is for two players. The deck is prepared by first removing the kings, queens, and jacks, and then separating the colors, leaving you with two 20-card decks.

Either deck is used first, the other being put aside for now. Each player is given three cards, and the other 14 cards of the reduced deck are set away as stock, in a face down stack. Each player takes turns taking one card from the stock and playing a card, calling out the total of the played cards. If the first player drops a four, he calls, "Four." If his opponent drops a ten, she calls, "Fourteen," and so on.

The point of the game is to make the total of the played cards add up to a multiple of 3, 5, or 7, or add up to be a number with 3, 5, or 7 in it. Players keep a running total of the sums of the cards, and the cards are kept face up so they can be added up in case of a dispute. Aces are one, twos two, etc.

When the total of the played cards have seven in it or is a multiple of seven, the person dropping the card to make that total scores **Cheeseburger**. If the first player plays a 2, and the second player 5, the second player scores a Cheeseburger. If the first player drops a 10 next, he too scores a Cheeseburger. Seven, 14, 17, 21, 27, 28, etc. are Cheeseburger numbers. Cheeseburgers are worth seven points.

When the total has a five or a multiple of five, the player making that total scores **Soda**. If a player starts with a five, he makes Soda. If the second player drops another five on top, she scores a Soda, too. If the first player returns with a 10, he gets another Soda. Five, 10, 15, 20, 25, and so on are some Soda numbers. Sodas score three points.

When the total has a three or is a multiple of three, the player making that total scores **Fries**. They're made the same way as Cheeseburgers and Sodas. Three, six, nine, 12, 13, 15, and others make Fries. Fries score one point.

Notice that all the numbers between 70 and 79 are Cheeseburgers, all between 50 and 59 (and 60, a multiple of five) are Sodas, and all between 30 and 39 are Fries.

Also note that some numbers can be in more than one category. Fifteen, for example, score both Soda and Fries. Thirty five brings in all three.

After the stock is exhausted, play continues until both players no longer have cards. Then, using the other deck, with the player that went second the first game going first this time. (Because the last play is for a total of 110, the second player gets an advantage, since she gets an easy Soda. Switching first and second for the second game makes sense.) The cards used for the first game are put aside and not used, and the total of the cards start again at zero.

The second game is played in the same way as the first, and the player with the highest score after both games is the winner.