

Blackjack Game

Cards

| name | rank | value |
|-------|------|-------|
| ace | 14 | 11 |
| King | 13 | 10 |
| queen | 12 | 10 |
| Jack | 11 | 10 |
| ten | 10 | 10 |
| nine | 9 | 9 |
| eight | 8 | 8 |
| seven | 7 | 7 |
| six | 6 | 6 |
| five | 5 | 5 |
| four | 4 | 4 |
| three | 3 | 3 |
| two | 2 | 2 |

1.) Print out the rules

- card values
- 21 on the first two cards is called Blackjack and it beats all other hands
- You win if your hand beats the dealers, without going over 21
- No one wins on a tie
- If you have less than 21 you may draw another card (Hit) or end your turn (Push)
- The dealer will not hit if holding 17 or above

2.) Create the deck

- 52 cards
- 4 cards of each rank

3.) Shuffle the deck

4.) Deal cards to the player and the dealer

- deal one card at a time, starting with the player
- the player and the dealer each receive 2 cards

5.) The Players turn

- The player can either "hit" or "stand"
- The turn is over when:
 - the player chooses to "stand"
 - The player has ≥ 21
- The player wins on their turn if they get 21 on their first two cards (Blackjack) and the dealer does not hold blackjack
- it is a tie (push) if both the player and the dealer hold blackjack

6.) The dealers turn (if the player didn't win already)

- "hit" until holding ≥ 21

7.) Determine the winner

- player wins if holding ≤ 21 and the dealer holds less than the player

• Hand values are calculated as follows:

1.) Calculate the initial value of the hand and determine the number of aces

- sum the cards values \rightarrow handValue
- count the number of cards with a rank of 14 \rightarrow numAces

2.) calculate the final value of the hand

- while handValue > 21 and numAces > 0

Subtract 10 from handValue and decrement numAces

Variables

numAces

handValue