

```
#!/usr/bin/env node
```

```
const math = require('mathjs');
```

```
const _ = require('lodash');
```

```
function buildDeck() {
```

```
  //suit and rank iterators
```

```
  var suits = ['Clubs', 'Spades', 'Hearts', 'Diamonds'];
```

```
  var ranks = ['Ace', 2, 3, 4, 5, 6, 7, 8, 9, 10, 'Jack', 'Queen', 'King'];
```

```
  var deck = [];
```

```
  .forEach(suits, function(suit) { .forEach(ranks, function(rank, index) {
```

```
  //value from rank calculation
```

```
  var value = null;
```

```
  if (rank === 'Ace') {
```

```
    value = 11;
```

```
  } else if (rank === "Jack" || rank === "Queen" || rank === "King") {
```

```
    value = 10;
```

```
  } else {
```

```
    value = index + 1;
```

```
  }
```

```
    //card creation
```

```
    var card = new Object();
```

```
    card.rank = rank;
```

```
    card.suit = suit;
```

```
    card.value = value
```

```
    //card added to deck
```

```
    deck.push(card);
```

```
  })
```

```
});
```

```
return deck;
```

```
}
```

```
function buildDecks(numDecks = 6) {
```

```
  var decks = [];
```

```
  //loop for number of decks
```

```
  for (var i = 0; i < numDecks; i++) {
```

```
    decks.push(buildDeck());
```

```
}
```

```
return _.flatten(decks);
```

```
}
```

```
function shuffle(deck) {
```

```
return _.shuffle(deck);
```

```
}
```

```
function dealCard(deck) {
```

```
return deck.shift();
```

```
}
```

```
function calculateHandValue(hand) {
```

```
var hasAce = false;
```

```
var value = 0;
```

```
var isSoft = false;
```

```
_.forEach(hand, function(card) {
```

```
if (card.value === 11) {
```

```
if (hasAce === false) {
```

```
hasAce = true;
```

```
isSoft = true;
```

```
value += card.value;
```

```
} else {
```

```
value += 1;
```

```
}
```

```
} else {
```

```
value += card.value;
```

```
}
```

```
});
```

```
if (hasAce == true && value > 21) {
```

```
value -= 10;
```

```
isSoft = false;
```

```
}
```

```
var result = new Object();
```

```
result.value = value;
```

```
result.isSoft = isSoft;
```

```
return result;
```

```
}  
////////////////////////////////////  
//  
//  
//  
//  
//  
////////////////////////////////////
```

```
var deck = buildDecks();  
deck = shuffle(deck);
```

```
var value = { value: null, isSoft: false };  
var i = 0
```

```
while (value.isSoft === false) {  
  var hand = [];  
  hand.push(dealCard(deck));  
  hand.push(dealCard(deck));  
  console.log(hand);  
  value = calculateHandValue(hand);  
  if (value.isSoft === false){  
    console.log();  
  }  
}
```

```
console.log(value);  
i++;  
}
```

```
console.log(i + "th hand");
```