

Part 1

1. The isEmpty() method should return true if the deck is empty (i.e., no cards left) or false if the deck still has cards in it. To check if the deck is empty, we can compare the topCard variable with the maximum deck size (MAX_DECK_SIZE). If topCard is equal to or greater than MAX_DECK_SIZE, it means the deck is empty.
2. The draw() method is responsible for drawing one card off the top of the deck. Since we are using an array to represent the deck, we can access the card at the topCard index and return a pointer to it. After drawing a card, we need to increment topCard to simulate removing that card from the deck.

Part 2

1. A "winning hand" is one where the cards are in ascending order from left to right. To determine this, we can iterate through the cards in the hand and check if each card's number is greater than the number of the card to its left. If this condition holds for all cards in the hand, the hand is a winning hand.
2. Test with a winning hand, test with a non-winning hand
3. Test with valid replacement, Test with invalid index

Part 3

1. The player starts their turn.
2. The player decides whether they want to draw a card from the discard pile or the draw deck. They have two choices:
 - a. Draw from the discard pile: The player takes the top card from the discard pile (the card is "face up" and visible).
 - b. Draw from the draw deck: The player takes the top card from the draw deck (the card is "face down" and hidden).
3. The player decides whether they want to replace one card in their rack with the card they just drew. They have two choices:
 - a. Replace a card in their rack:
 - i. The player selects one card from their rack to replace with the drawn card.
 - ii. The drawn card takes the place of the selected card in their rack.
 - b. Discard the drawn card:
 - i. Instead of replacing a card in their rack, the player chooses to discard the drawn card.
 - ii. The discarded card is placed on top of the discard pile, becoming the new top ("face up") card.
4. If the player's rack is in ascending order (from left to right) after they have made their move, they win the game, and the game ends immediately.
5. If the draw deck runs out of cards before anyone wins, the game ends in a draw.

This assignment took me about 24 hours.