Take one suit from a pack of cards and shuffle. Then use each of the algorithms below to sort the cards.

Bubble Sort
Compare the first two cards. If they are in the wrong order, swap them round. Then compare the second and third card. If they are in the wrong order, swap them round. Keep going through the pack. When you have finished, keep the cards in the new order and repeat the process from the beginning of the pack.
Repeat until you get all the way through the pack without doing any swaps. The cards are now sorted.

Shuttle Sort
First pass: compare the first two cards. Swap them if necessary.
Second pass: compare the second and third cards. Swap them if necessary.
Then compare and swap the first two cards again if necessary.
Third pass: compare the third and fourth cards. Swap them if necessary.
Then compare and swap second and third cards if necessary. Then compare and swap first and second cards if necessary.
Continue in the same way for the rest of the pack.

Selection Sort
Go through the pack until you find the Ace. Swap it with the first card. Then go through the pack until you find the Two. Swap it with the second card. Then go through the pack until you find the Three. Swap it with the third card. Repeat with the rest of the cards.

Insertion Sort
Put the first card down. Take the second card, and put it to the right or to the left of the first card, depending on whether it's higher or lower. Then take the third card and place it correctly relative to the first two cards, making a space if necessary. Take the fourth card and place it correctly relative to the first three cards, making a space if necessary. Keep going until all the cards are in order in the new pile.

Quick Sort
Take the first card of the pile. Sort the rest of the pack into numbers smaller than and numbers bigger than the number on the first card. Put the first card down between these two sub-packs. Then sort each sub-pack of cards by taking the top one and sorting the rest into two sub-packs in the same way. Keep going until there are no sub-packs with two or more cards.