Problem #1: Card Deck

Using C++14, implement software that generates objects representing a deck of cards, and implement the following algorithms:

- Shuffle (without using std::random_shuffle, std::shuffle, or any other library method).
- Sort by suit.
- Sort by rank.
- Given rank and suit, give the placement in the deck of a card.

Questions:

- Please discuss the short comings and possible improvements to your algorithm if you had infinite time.
- How can you evaluate the efficiency of your shuffle method?

Please provide a Makefile or script to build your source and unit tests. Ensure your code is well documented and you have stated your assumptions in the comments.