HW02 [100 pts]

1. Write a class that will represent a card in a standard deck of playing cards. You will need to represent both the suit (clubs, diamonds, hearts or spades) as well as the rank (A, K, Q, J, 10, 9, 8, 7, 6, 5, 4, 3, 2) of each card.

b. Write methods to
- Initialize the deck of cards
- Perform a perfect shuffle
  In a perfect shuffle, the deck is broken exactly in half and rearranged so that the first card is followed by the 27th card, followed by the second card, followed by the 28th card, and so on.
- Print the deck of cards
- Compare two decks of cards

c. Print out the initial, the deck after the first perfect shuffle, and the final deck.

d. Print out how many perfect shuffles are necessary to return the deck to its original configuration.

Use the command script to capture your interaction compiling and running the program, including all operations, as shown below:

CS1C Summer 2019 MTWTH HW02 100pts **Due: Th 6/13/2019**

cs1c@cs1c-VirtualBox ~/cs1c/hw/02 $ script hw02.scr
Script started, file is hw02.scr
cs1c@cs1c-VirtualBox ~/cs1c/hw/02 $ date
...
cs1c@cs1c-VirtualBox ~/cs1c/hw/02 $ ls -l
...
cs1c@cs1c-VirtualBox ~/cs1c/hw/02 $ make all

HW02 [100 pts]

...
cs1c@cs1c-VirtualBox ~/cs1c/hw/02 $ ls -l
...
cs1c@cs1c-VirtualBox ~/cs1c/hw/02 $ ./hw02

... // print out the initial, the deck after the first perfect shuffle, and the final deck
... // print out how many perfect shuffles are necessary to return the deck to its original configuration

cs1c@cs1c-VirtualBox ~/cs1c/hw/02 $ exit
Script done, file is hw02.scr
cs1c@cs1c-VirtualBox ~/cs1c/hw/02 $ make tar
...
Submit the tar package file hw02.tar by Thursday June 13, 2019.