Creating a Playing Card

(designed to accompany the AP® Computer Science A Elevens Lab)

- Consider the following questions first:

1. What important characteristics does a playing card have?
2. What are appropriate instance variables for all Card objects?
3. What would a default constructor method look like that would create simple, "blank", cards with no value?
4. What would a constructor method look like that would use parameters to build a specific card?
5. What accessor methods would be needed to access card variables?
6. What would a method look like that would simply print a card's characteristics?

- Below is the framework for the basic playing card object. How would you complete the framework?

```
public class Card {

   //3 private instance variables:  2 String variables named suit and rank, 1 integer variable named pointValue

   public Card(String cardRank, String cardSuit, int cardPointValue){
         // Code to complete the constructor method and assign state variables
   }

   public String suit(){
         // Code to return the suit of a card
   }

   public String rank(){
         // Code to return the rank (type) of card
   }

   public int pointValue(){
         // Code to return the point value of a card (to track which cards are "more powerful")
   }

   @Override                              // @Override is needed because JAVA already has a toString( ) method
   public String toString(){
         // Code to return a string communicating the card.  Example:  5 of Hearts (point value = 5)
   }
}
```

- Create a CardTester class that contains a main method. Build Card objects and test all methods. Sample output…

```
Here is the card ...
Jack
Hearts
11
Jack of Hearts (point value = 11)
```