CPS 171 Machine Problem #6
Creating a Class

The purpose of this assignment is to give you practice in creating a class and in using enums.

You will develop a program that creates a class for a playing card. The main program will then use a loop to test the class for all 52 cards in a deck.

You **must** use an enum with the constants HEARTS, DIAMONDS, CLUBS and SPADES for the type of suit for the card.

The class will have three data members:
1. a **string** for the **description** of the card e.g. "Ace" or "Seven" or "King" etc.
2. an **enum** variable to hold the **suit** of the card (see above).
3. an **integer** to hold the **value** of the card (see below)

The class will have the following member functions (details about each one are below):
1. A default **constructor**.
2. A function **Set_Card** that receives an integer from 1 to 52 and sets the data members of the object.
3. A function to **Display** all the information about a card.
4. A function **Card_Value** to return the value of a card.

You must create your program using the following three files:

card.h -- used for declaring your class. In this header file, the declaration of the class and its members both data and functions, will be done without the definitions. The definitions should be done in the **card.cpp** file.

card.cpp -- should have the definitions of the member functions:
1. The **constructor** will initialize the suit to SPADES, the description to "No card" and the value to 0.
2. **Set_Card** will use the integer it receives to set the values of the data members of the card according to the following information:
   For integers 1 through 13, the suit is HEARTS
   For integers 14 through 26, the suit is DIAMONDS
   For integers 27 through 39, the suit is CLUBS
   For integers 40 through 52, the suit is SPADES

   The integers 1 through 10 represent "Ace" through "Ten", 11 is "Jack", 12 is "Queen" and 13 is "King"
   Continue in a similar fashion for 14 through 26, 27 through 39, etc.

   The value of a card is determined by the following:
      the cards "Two" through "Ten" have the same value as their face value, any picture card has value 10, and an "Ace" will have the value 1 for this assignment.
3. The **Display** function will display all of the card information in a clear format. Refer to your textbook for the correct way to print the value of an enum variable.
4. The **Card_Value** function will simply return the value of this card.

MP6card.cpp -- should contain the main program (and any other functions you wish to use) to test the class by looping from 1 to 52, creating a card object and calling the member functions of the class to set the data members of the object and then display the object.

Here are the first lines of some sample output:

Card Tests by Janet Remen

Testing the integer 1
Card Information is: Ace of Hearts   Value of card is 1

Testing the integer 2
Card Information is: Two of Hearts   Value of card is 2

Testing the integer 3
Card Information is: Three of Hearts   Value of card is 3

Testing the integer 4
Card Information is: Four of Hearts   Value of card is 4

Testing the integer 5
Card Information is: Five of Hearts   Value of card is 5