Practice 9 – Decision Making + Integer Division + Remainder

Task 1-2 are related to cards (game), if students are luckily unaware of detail of cards used in card games. Read detail of cards, otherwise move to task 1:

A pack of cards called deck has 52 cards of 4 types. Each type has 13 cards, 4 types given below. Cards have two colors. Two types of cards have red color and two types of cards have black color. In each type 9 out of total 13 cards are numbered from 2-10, where remaining 4 cards have symbols instead of number that is 11 is **J**ack, 12 is **Q**ueen, 13 is **K**ing and A for **A**ce:

Symbol	Type	Color
D	Diamond	Red
H	Heart	Red
S	Spade	Black
C	Club	Black

Symbol	Representation
(A) 1	Ace
2…10	Card Value
(J) 11	Jack
(Q) 12	Queen
(K) 13	King

In programs, we will use character to represent type of card (i.e. D for diamond, H for heart, S for Spade and C for Club. Similarly, we use integer to represent

Task 1: Write a program to input card type (a single character D, H, S or C). Print color of the card?

Task 2: Write a program to generate a card randomly out of deck. Idea is generating a number 1 to 13 both included. Generate another number say type 0 to 4 (4 not included). Now using checks print card like:

Four of Club

Six of Diamond

Ace of Spade

King of Diamond

Task 3: Extend previous task to generate two cards. Check and show appropriate messages if:

- Both cards have same number
- Both cards have same type
- Both cards have same color
- Cards are in sequence

Task 03: Input a three-digit number and print it's digits in single line using integer division and remainder

Sample Run:

```
Enter three-digit number: 341
First Digit: 3
Second Digit: 4
Third Digit: 1
```

Task 04: Modify task 3 and print sum of digits

Sample Run:

```
Enter three-digit number: 341
Sum of digits: 8                    (3 + 4 + 1 = 8)
```

Task 05: Input a three-digit number and reverse the number by separating digits

Sample Run:

```
Enter three-digit number: 341
Reverse number is: 143
```